New Research in Mental Health

2000-2001 Biennium

Volume 15

Ohio Department of Mental Health

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INTRODUCTION

Historical Overview

The decade of the 1970s was one of great creativity and change for the Department of Mental Health=s research program. Although there were some setbacks, the overall outcome was forward progress in the development of new knowledge for the mental health system. The very early 1970s saw a continuation of the program of basic research which was developed in the 1960s. Our scientists were studying fatty acid metabolism, the neurobiology of aging in animals, brain lipids, and accumulated minerals and trace elements in the blood.

In Fiscal Year 1973 we took a critical look at our research program and found that it was not addressing the kinds of problems and questions the Department was facing in the present or expected to be facing in the future in our attempts to develop and deliver better services. While our research was concentrated in basic sciences, our questions were of a more immediate and applied nature. During Fiscal Year 1974 we phased out almost all of the basic research program and undertook a priority-setting process to determine those areas needing research through the remainder of the 1970s. Those areas were: community-based services, planning, prevention, geriatrics, children's services, administration, institution-based services, training, forensic psychiatry and drug abuse.

In Fiscal Year 1975 we launched a major developmental effort to build an applied research program to address questions in these ten priority areas. In this process, we also attempted to stimulate diversity in the types of settings in which Department of Mental Health research projects are conducted, because it is our belief that a multidisciplinary research program, in a variety of settings, will elicit a wider range of theories and approaches applicable to our problems.

The development effort in Fiscal Year 1975 was successful. By the close of that year research projects had been commissioned in eight of the ten priority areas, and we had achieved substantial progress in developing research in diversified settings. In addition to our Research Center in Cleveland, projects were being conducted under the sponsorship of seven of our institutions, three universities, eleven local community mental health boards and agencies, plus Central Office. Inquiry was in progress in such areas as the effects of Ritalin on hyperactive children, new techniques to correct learning disabilities, the prediction of dangerousness, the effects of the physical environment on hospitalized patients, and the interface between institutional and community mental health services. Procedures of proposal review were instituted by the Office of Program Evaluation and Research which insured a high level of quality in each research project funded. Findings were beginning to be reported which not only impacted our own services, but also achieved recognition in a number of national journals.

The 1976-1977 Biennium saw much of the forward momentum of the developing program in applied research halted. Competing pressures for scarce resources resulted in a focus on immediate service needs and a corresponding decline in emphasis on strategies which would yield knowledge for the future. The research budget was cut by more than 55 percent. Many projects were halted in progress, and others were terminated before they began. In contrast to the single Fiscal Year 1975, when 33 pieces of research were in progress in eight of our priority areas, the two-year period of the 1976-1977 Biennium found only 24 projects in operation, covering six areas.

In contrast to the bleak outlook of the previous biennium, Fiscal Year 1978 saw a revitalization of the research program. A substantial amount of the cut budget was restored, and efforts were renewed to develop research projects which could make a significant contribution to the knowledge base of the mental health system. As a result, 1978 found 38 projects in progress in our Research Center, four of our institutions, seven universities, Central Office, one private research organization, and five community agencies and boards. The projects covered seven of our ten priority areas and focused on such topics as organizational analysis of our institutions, programs to rehabilitate individuals with drug problems, factors affecting psychiatric admissions to inpatient services, and the mental health effects of mass tragedy and mass unemployment.

In Fiscal Year 1979 the forward momentum of the Department=s research program continued. During that year, 48 projects were in operation, in nine out of ten priority areas. The diversification of project settings was increased, and projects were being conducted in our Research Center, eight universities, six of our institutions, Central Office, two private research organizations, seven community agencies and boards, and a metropolitan hospital. Fiscal Year 1979 projects covered a wide range of topic areas, including the variables associated with successful transition of released patients back into the community, the effects of various types of hospital organizational structure on staff and patient outcomes, and the development of instrumentation to measure more effectively the treatment progress of community aftercare clients.

During the last few months of Fiscal Year 1979, we began to look ahead and assess the needs for research in the 1980s. The Office of Program Evaluation and Research conducted a statewide needs assessment, including a series of interviews with key individuals within the mental health system throughout the state, to determine those topical areas where applied research could be most beneficial to the Department's efforts. This survey resulted in the identification of fourteen areas which were consistently seen as having major significance for the improvement of mental health care over the next ten years. The fourteen areas were designated as our priorities in the search for new knowledge in the decade of the 1980s. An additional area--biological and nutritional research--was added by the General Assembly in its budget deliberations, and these fifteen priorities guided the research program during the 1980-1981 Biennium:

1. The "revolving door" phenomenon
2. New treatment modalities
3. The effects of legislation on the mental health system
4. Community attitudes and citizen involvement in mental health
5. The interaction between mental health and other human service areas
6. Prevention
7. Clients with the dual diagnosis of mental illness and mental retardation
8. Psychotropic drugs
9. Treatment needs of special populations such as aggressive, violent or suicidal clients or long-term institutionalized patients
10. Treatment needs of emotionally disturbed children
11. Treatment needs of the geriatric client
12. Drug abuse
13. Mental health manpower and manpower development
14. Mental health system studies and the development of treatment evaluation instruments
15. Biological and nutritional research

Although it suffered from the state=s fiscal crisis in the last half of Fiscal Year 1981, as did the overall mental health system, the research program was very active in the 1980-1981 Biennium and produced a substantial number of achievements. Sixty-seven projects were in operation in twelve universities, eight community agencies or boards, four of our hospitals, Central Office, three general hospitals, three private research organizations, and the Research Center.

A number of the major projects were studying the transition of clients from hospital to community settings. Through the funding of several pieces of research concentrating on different aspects of this issue, we put in place a mechanism to yield new knowledge about how the service system was working and where it could be improved. In the 1980-1981 Biennium the research program received national recognition from the American Psychiatric Association for the work of the Architecture/Research/Construction Group in the development and testing of therapeutic physical environments for both hospital and community treatment settings.

After more than two decades of significant achievements, the research program was largely destroyed in the 1982-1983 Biennium. The overall state budget for 1982-1983 was developed at a time of severe fiscal crisis in Ohio. A number of agencies received substantial cuts in their requested allocations, including the Department of Mental Health, however research was the Department's only program singled out by the Office of Budget and Management for total elimination. Hence, the Mental Health budget was sent to the General Assembly with no allocation for research, and there followed an arduous six-month battle to get the program reinstated. In the end, the immediate battle was won but the long-term war was lost. We were successful in reinstating a budget for research, but it was a cut of 78 percent from the 1980-1981program level.

Fiscal Year 1982 saw only the designated ongoing projects in operation. During Fiscal Year 1983, the completion of some of those allowed a few new projects to begin, primarily dissertation research in the Small Grants Program. In total during the 1982-1983 Biennium, twenty-one projects were funded in three universities, four community service or planning agencies, three general hospitals and two private research organizations. The Research Center was closed.

Highlights of the 1982-1983 Biennium were projects on the involvement of clients in the design and implementation of program evaluation in a mental health agency, the impact of different models of case management on treatment outcomes, the tracking of a cohort of 550 individuals released from two acute psychiatric hospitals into the community mental health system as well as the larger social service system, and the rights of patients to participate in decisions about the use of psychotropic medications in their treatment.

In 1983, our Architecture/Research/Construction Group was again honored for its work on the development and testing of therapeutic physical environments. This time they won a Progressive Architecture Award, the top national honor in the field of architecture. It is an extraordinary achievement for a single research effort to win national acclaim in two different fields of endeavor, and we feel fortunate to have been able to fund the group=s work for over a decade.

Research funds were even more limited in the 1984-1985 Biennium. Twenty-four projects were funded under the Regular Research Grants Program and seven were funded under the Small Grants Program for dissertation research. These projects were operating in seven different universities, seven community service or planning agencies, two general hospitals and one private research organization. Two major dissemination efforts occurred in this biennium, involving the Client Oriented Program

Evaluation group's successful development of a reliable and valid treatment outcome instrument based on clients= feelings, and findings from research on case management and its impact on client outcomes.

Despite our very active efforts to reinstate some of the budget cuts of previous years, allocations for research in the 1986-1987 Biennium were held by the General Assembly at 1984-1985 levels. Twenty-four new projects were funded in five different universities, six community agencies, three private research organizations, and the Office of Program Evaluation and Research. Researchers studied the Department's Informed Consent Policy being tested at two state hospitals, individuals who sought services at a psychiatric emergency room but who were not admitted for inpatient care, the phenomenon of postpartum depression, interorganizational networks in the mental health service delivery system, and the formal and informal networks of family members of mentally ill individuals and their use of mental health services.

In the 1988-1989 Biennium, despite continued very active efforts to reinstate part of the Department's research budget, the General Assembly again held the research line item at 1984-1985 levels. This erosion of real dollars limited both the size and scope of projects we could fund. Twenty projects were funded in seven different universities, five community agencies and boards, one private research organization, and the Office of Program Evaluation and Research. Work continued on assessing the impact of the Department's Informed Consent Policy for the administration of medications, as the policy was implemented in all our hospitals. Studies were also in progress concerning severely emotionally disturbed children and adolescents, the impact of several facets of housing, and the extent of family burden for different types of caregivers.

Early in 1989, the Department began an extensive planning process for developing research to assess the impact of the Mental Health Act of 1988--the omnibus legislation that mandated extensive changes in Ohio=s mental health system. As a first step in that process, Office of Program Evaluation and Research staff conducted focus group sessions with representatives of 16 different constituency groups about framing the most important questions needing to be researched. Feedback came from consumers, family members, community mental health board staff, judges, county commissioners, advocates, legislators, labor unions, community mental health agency staff, community representatives, hospital CEOs and various professional organizations. In addition, a group of national leaders added their input about what questions individuals outside Ohio were asking about the impact of changes taking place in our mental health system.

Areas of research seen as most important by the various constituency groups were: the organization and structure of the mental health system; outcomes for clients; the role and function of hospitals and state-operated services; the impact upon staff, costs, families and special population groups; and the impact of community commitment, particularly on clients= rights. These areas of research were established and promulgated as the Department's research agenda for the decade of the 1990s.

In light of the importance of assessing the impact of the Mental Health Act of 1988 on the lives of Ohio consumers of mental health services, the Department made research a top budget priority for the 1990-1991 Biennium. Efforts to restore some of the budget were finally successful, and this infusion of new funds allowed an increase in the number of projects and in the diversity of topics being addressed by researchers. In the 1990-1991 Biennium, 30 projects were funded in 12 different universities, five community agencies or boards, one state hospital, one private research organization, and the Office of Program Evaluation and Research.

Researchers were studying the impact of housing programs and the comparative costs of providing mental health services and housing in the community vs. hospital settings, enhancing social networks of mental health consumers, the transition of severely emotionally disturbed youth to adulthood, the process of case management in community treatment teams, and the impact of a community support system for persons with long-term hospitalization.

This biennium the Office of Program Evaluation and Research received a grant from the National Institute of Mental Health for a four-year study AServices in Systems: Impact on Client Outcomes.≅ The research was designed to ascertain the service mixes being delivered to Ohio=s severely mentally disabled population; the extent to which the characteristics of clients, systems, and community environments are associated with these service mixes; how the service mixes are related to outcomes in clients= lives and how all of these relationships change over time. Since it was a longitudinal study, it enabled us to evaluate changes in the mental health system and client outcomes over a longer period of time than that studied by most of the prior research in the field.

The 1992-1993 Biennium saw a very active research program, with 33 projects funded in 12 universities; ten community agencies, boards or hospitals; one private research organization, and the Office of Program Evaluation and Research. Projects were underway addressing important aspects of the impact of the Mental Health Act of 1988, including research on community mental health/ADAMHS board responses, and an in-depth study of persons involuntarily committed to boards, the services they received, and the outcomes they experienced, from their own perspectives and those of their families. A number of projects were focusing on population groups with distinctive mental health problems or needs, including African-American clients, elderly nursing home residents, mentally ill individuals involved in the criminal justice system, and children and adolescents.

During the 1994-1995 Biennium, we funded 43 projects--a very healthy increase! Sixteen were masters= theses or doctoral dissertations, funded under our Small Grants Program for graduate student research. Research projects were funded to 14 different universities; six community agencies, boards or hospitals; one private research organization, and the Office of Program Evaluation and Research.

We had a particular focus on knowledge dissemination, since a number of projects were completed in this biennium. Research Results Briefing 1994: Knowledge for a New Era of Mental Health attracted over 300 people for a two-day symposium in which results from 23 different projects were presented. Our NIMH AServices in Systems≅ study was completed during this biennium and was featured at Research Results Briefing 1994 as well as in a number of national conference venues, including the National Conference on Sate Mental Health Agency Services Research and Program Evaluation, APHA and IAPSRS. The study provided so much valuable information and so many interesting new questions that we decided to extend and reconfigure it as part of our own research program, under the title AA Longitudinal Study of Mental Health Services and Consumer Outcomes in a Changing System≅.

During the 1996-1997 Biennium, we funded 29 projects. Eight were masters= theses or doctoral dissertations, funded under our Small Grants Program. Research projects were funded to ten different universities, two community agencies or mental health boards, one private research organization, and the Office of Program Evaluation and Research.

A major focus of this biennium's research program was recovery from serious mental illness, and ways in which recovery can be enhanced. The Department's Office of Consumer Services funded four

demonstration projects, and our office funded universities to develop research around the projects= interventions. We are particularly pleased that, in all four instances, the research became a genuine collaboration between consumers and university staff. There were also a number of projects which focused on a wide range of topics concerning family members of adults with mental illness or children with emotional disturbances, indicating our commitment to family members as an important source of support in consumers= lives and to developing knowledge that will improve services for families as well as consumers.

During the 1998-1999 Biennium, we funded 37 projects. Eleven were master theses or doctoral dissertations, funded under our Small Grants Program. Research projects were funded to 12 universities two community agencies, two private research organizations and the Office of Program Evaluation and Research. At the beginning of the biennium we held Research Results Briefing 1997: Knowledge for Services and Systems in an Era of Change, our triennial two-day symposium in which the results of our research programs are presented to the Ohio mental health system.

Our research portfolio for 1998-1999 reflected our commitment to understanding the characteristics and needs of consumers and families, particularly adults with severe mental illnesses and children with serious emotional disturbances, and to determining the services that work effectively to help people recover.

The 2000-2001 Biennium

During the 2000-2001 Biennium, we funded 34 projects, 11 of which were funded under our Small Grants Program. Research projects were funded to 13 universities, three community agencies or boards, two private research organizations and the Office of Program Evaluation and Research.

In this biennium, the Department's Office of Consumer Services funded a group of eight demonstration projects designed to embed the principles of Recovery into board and agency operations in local mental health systems. Our office funded research to ascertain the impact of these interventions in seven of the demonstrations. Six universities and one local board--Case Western Reserve University, Kent State University, Kenyon College, Ohio Wesleyan University, the University of Cincinnati, Youngstown State University and the Columbiana County Mental Health and Recovery Services Board--are now in the middle of those research endeavors, as readers will see from the articles in Chapter One.

The research portfolio this biennium also began to address the Department's Quality Agenda, which is seeking to improve the quality of mental health services in Ohio through 1) increasing the use of evidence-based practices, 2) shifting from a quality assurance approach to a continuous quality improvement approach, and 3) consistently measuring consumer outcomes.

It has been clear that having research which proves that a new treatment modality is effective is not a sufficient motivation for organizations to adopt that modality. Other complex factors come into play, and the new Innovation Diffusion and Adoption Research Project (IDARP) is beginning to look at these. The two major IDARP questions are: 1) what factors and processes influence the decision to adopt an innovative practice by behavioral healthcare organizations? and 2) what factors and processes contribute to the longer-term assimilation of innovative practices by adopting organizations? The project is a collaboration among researchers at Decision Support Services, Inc., the Office of Program Evaluation and Research, and the Ohio State University. We hope that this research will lead to new knowledge which will help to enhance the level of adoption of evidence-based practices in the Ohio mental health system and to improve the quality of care for individuals with mental illnesses.

This volume of New Research in Mental Health contains abstracts of each of the projects funded by the Department's research program which were in progress during the 2000-2001 Biennium (Chapter One) as well as projects in progress funded by federal and other sources (Chapter Two). The abstracts were written by the researchers, and they represent varying perspectives as well as varying stages of project progress. It is my hope that some of these projects are addressing problems and concerns you in the mental health system are experiencing, and that the results of the research will give you new ideas and assistance in improving the quality and effectiveness of services. Please feel free to contact the researchers or me for further information or to discuss any questions you may have. An appendix at the end of this book gives locating information for all principal investigators.

We in the Department of Mental Health believe that research is a valuable and a necessary tool in the task of enhancing the quality and effectiveness of the mental health system. By bringing the rigor of good research methodology to bear on the kinds of pressing problems and issues facing us, we can develop new strategies and techniques, move toward best practices in the public mental health system, and achieve a better understanding of the needs of those we serve.

It is one of the functions of the Office of Program Evaluation and Research to develop linkages between problems and questions within the mental health system which need research, and universities and other resources capable of developing research projects which will provide answers. To this end, we are actively engaged in an ongoing process to encourage researchers in settings throughout Ohio to apply their talents and expertise to the many priority questions which remain unsolved in all of the areas of public mental health. I would like to hear from any researchers who wish to explore these challenges with us.

I hope that you will find this book both interesting and challenging and that we can work together to integrate the results of our research into the ongoing operation of mental health programs, in order that the citizens of Ohio will receive higher quality and more effective services.

Dee Roth, MA
Chief
Office of Program Evaluation and Research
Fall 2002

Chapter One
ODMH - Funded Research

A COMPARISON OF THE EFFECTIVENESS OF MANUALIZED AND NATURALLY OCCURRING THERAPY FOR CHILDREN WITH DISRUPTIVE BEHAVIOR DISORDERS

Applewood Centers, Inc.

Jeremy P. Shapiro, PhD

Currently, one of the most basic controversies in the mental health field concerns the utility of treatment outcome research, in its traditional form, for guiding everyday therapeutic practice. The usual term for this controversy is the "efficacy versus effectiveness debate" (Fishman, 2000). The methodological question is the degree of similarity between therapy as operationalized in research studies and therapy as practiced in the "real world" of clinics and offices. The practical question is to what extent therapists should plan their interventions for clients on the basis of outcome studies, versus the basis of "clinical judgment." This controversy cross-cuts diagnostic groups and specific interventions, reaching to the heart of most of treatment planning and decision-making.

The traditional method of therapy outcome research has been the clinical trial design, in which two or more subdivisions of a diagnostically homogeneous sample are treated with tightly defined, manualized therapeutic regimens, and change in client functioning from pretest to posttest is measured. Concerns about the clinical trial design center on the issue of external or ecological validity (Cronbach, 1982; Fishman, 2000; Seligman, 1996; Weisz, Weiss, & Donenberg, 1992). These writers have argued that neither the clients nor the interventions studied in efficacy research accurately represent psychotherapy as it is practiced in the "real world." The purpose of this study is to examine empirically the applicability of traditional outcome research to clinical practice and to produce research findings from within a community clinic about the comparative effectiveness of different therapeutic techniques for children with disruptive behavior disorders.

This study is also addressing an additional, supplementary issue. The Ohio Youth Problems, Functioning, and Satisfaction Scales (Ohio Scales; Ogles, Melendez, Davis, & Lunnen, 1999) have accumulated substantial validation as measures of behavioral and emotional problems and level of mental health functioning in children. However, there is currently no information about the sensitivity of these scales to treatment-associated change in problem and functioning levels. The issue of sensitivity to change is of concern both to providers choosing measures for program evaluation purposes and to administrators, researchers and consumers who interpret outcome data. This study will produce such information by comparing change data from the Ohio Scales to change data from older measures that have accumulated more empirical information.

Goals of the Study

The proposed study has two types of goals. One purpose is abstract, general and methodological: we are developing and using a new procedure for measuring naturally occurring child therapy techniques, so that their effectiveness can be directly compared. The goal here is to advance the methodology of mental health research by developing procedures to help fill a gap that is widely considered important. Our second purpose is specific, concrete, and clinical: we will obtain information about the effectiveness of various therapeutic techniques for children with disruptive behavior disorders. The combination of these two types of goals is integral to our study, because production of ecologically valid information about treatment of disruptive behavior disorders requires rigorous research about naturally occurring therapy.

The general issue of the applicability of traditional outcome research to everyday community practice unpacks into several research questions:

(1) When manualized treatments are "transported" from research laboratories to community clinics, is their effectiveness maintained?

(2) What is the comparative effectiveness of the manualized treatments studied in outcome research and the therapies routinely provided by community practitioners?

We will address the first question by comparing results obtained with an empirically validated, manualized treatment for disruptive behavior disorders (Forehand & McMahon, 1981) in our agency to results produced by this intervention in past studies in research settings. We will address the second question by comparing, in our clinic, the results produced by the manualized treatment and by naturally occurring therapy.

The outcome literature provides little information about the effectiveness of therapeutic techniques when they are divorced from theoretically unified, pre-set packages and combined with strategies drawn from a variety of theoretical sources--even though this is how treatment is generally conducted. Applewood Centers has conducted one naturalistic study that did examine discrete intervention techniques (Shapiro, Welker, & Jacobson, 1997), and we are building on this past work to address the question:

(3) What are the associations between use of various therapeutic techniques and treatment outcomes in community settings?

Our study has seven specific objectives, corresponding to the acquisition of seven types of empirical information:

(1) We will measure the fidelity of implementation of Forehand and McMahon's (1981) manualized intervention for children with disruptive behavior disorders.

(2) We will compare the outcomes of our clients receiving the manualized treatment to outcomes reported in the literature for children treated in research studies.

(3) We will develop and use a method for measuring implementation of naturally occurring treatment in terms of specific therapeutic techniques, using therapist report on a structured instrument validated by blind codings of audiotapes of sessions.

(4) We will compare levels of treatment utilization versus dropout associated with manualized and naturally occurring therapy.

(5) We will compare the outcomes produced by manualized and naturally occurring therapy, using several measures of treatment effectiveness.

(6) Within the naturally occurring treatment condition, we will investigate associations between use of different therapeutic techniques and dropout rates, treatment outcome, and parent satisfaction.

(7) We will compare data on treatment progress from the Ohio Scales and several other measures in order to assess the comparative sensitivity to treatment-associated change of these instruments.

Methodology

This study is using a hybrid research design, combining aspects of traditional experimental methodology with a naturalistic approach. Specifically, our design combines functionally random group assignment to treatment conditions with detailed measurement of the variety of therapeutic techniques used by clinicians when they are not constrained by research requirements. Thus, our investigation of the independent variable of psychotherapeutic technique combines experimental control and unobtrusive measurement in an innovative synthesis.

The sample will include 240 children, aged three through nine years old, with a diagnosis of Oppositional-defiant Disorder, Adjustment Disorder with Disturbance of Conduct, or Disruptive Behavior Disorder Not Otherwise Specified. Children with co-occurring diagnoses are not excluded from the sample, because this would reduce the generalizability of our results; secondary diagnoses will be examined in the data analyses. Similarly, use of medication will not be a criterion of exclusion but will be a variable of interest. The child clients will be approximately 65 percent male and 35 percent female, with ethnic groups approximately 60 percent African American, 30 percent Caucasian, and 10 percent other ethnic group.

Our procedure has two basic parts. First, we are measuring naturally occurring therapeutic techniques, using a method described below, in a sample of 160 child clients. Within this sub-sample, we will examine correlations between use of different techniques and treatment outcome. Second, we will provide a group of 80 children with Forehand and McMahon's manualized treatment, and we will compare their outcomes to those of the group receiving treatment as practiced by agency clinicians under non-research conditions.

The more complex and innovative of these two aspects of the investigation is the measurement of naturally occurring therapy. While a number of therapeutic processes have been measured in past studies, our goal is to describe and assess the full range of commonly used counseling strategies; to the best of our knowledge, this has not been done before.

We constructed a coding system that identifies 19 therapeutic approaches (e.g., cognitive therapy, family systems therapy, solution-oriented therapy, and several types of behavior therapy). Treatment modality (e.g., individual child, parent counseling, family) and activity (e.g., pure talking, symbolic play, sandtray) are also assessed by this system. Research staff listen to audiotapes of therapy sessions and code the sessions on this basis. The reliability of the system depends on obtained agreement between trained coders; preliminary results have been encouraging.

In the first, naturalistic part of the study, treatment is practiced exactly as before the investigation began, and the research consists solely of measurement. In the second part of the study, the investigation will have an impact on services provided to clients. Agency clinicians will be trained in Forehand and McMahon's (1981) manualized treatment, and they will provide this intervention to their next 80 clients. This intervention has received strong support in laboratory studies (e.g., Wells & Egan, 1988), and we will ascertain its performance in a community mental health setting. The intervention consists of behaviorally oriented parent training in effective child management techniques and strategies for improving the parent-child relationship and child compliance with adult directives.

The dependent variables of therapy outcome and quality will be assessed by means of five instruments: (1) The Ohio Scales (Ogles et al., 1999) are new measures of child mental health functioning with extensive evidence of reliability and validity. Both the parent-report and therapist-report versions of the instrument will be administered. (The youth self-report version will not be used because our client

sample will be below the age-range of this instrument.) (2) The Child Behavior Checklist (Achenbach, 1991) is a well-validated, broad measure of child behavior problems and social competence that is completed by the parent. (3) The Parent Satisfaction Questionnaire (Kotsopoulos, Elwood, & Oke, 1989) measures parents' satisfaction with the mental health treatment their child has received. (4) The Goal Attainment Scale procedure (Kiresuk, Smith, & Cardillo, 1994) assesses consumers' attainment of their own, self-defined goals for treatment by applying a standard metric to this idiographic information. (5) The DSM-IV Global Assessment of Functioning Scale (GAF; American Psychiatric Association, 1994) uses a standard metric to quantify therapist judgments of the client's adaptive functioning.

Applicability

The investigation will produce results of both general and specific applicability. In other words, this research will produce both abstract, widely applicable knowledge and concrete, directly useful information.

Most broadly, we aim to advance the methodology of psychotherapy research and to produce empirical information bearing on the general question of the utility of traditional outcome research for guiding everyday clinical practice. Several forms of information will bear on this question. First, comparison of the outcomes achieved by Forehand and McMahon's protocol in our clinic and in past research settings will address the question of the "transportability" of this intervention. Second, comparison of outcomes from our manualized and naturally occurring treatment conditions will suggest whether Forehand and McMahon's intervention is more or less effective than routine clinical practice; such practice, as a comparison treatment, is more clinically substantial than those typically used in past outcome studies. Third, analyses within the naturally occurring treatment condition will indicate how the behavioral techniques comprising Forehand and McMahon's intervention perform when they are divorced from a pre-set package and combined with other techniques, as typically occurs in the eclectic interventions provided in the community.

Existing methodology for measuring what happens in everyday treatment settings is not well-developed, and leading researchers have issued calls for naturalistic studies in community clinics. NIMH has made effectiveness research a major funding priority and has rewritten most of its intervention program announcements to focus future research in this area (Foxhall, 2000). Both writers and funders have challenged investigators to strike a balance between accommodation to the realities of real-world practice and maintenance of the methodological rigor necessary for producing valid results. Our procedure represents an attempt to achieve this balance and, if successful, this attempt would be highly replicable.

The naturalistic part of the study will contribute a beginning, small amount of information to the answer to a huge question: under non-laboratory, real-world, clinical conditions, what types of treatment work relatively more and less well? Of course, our data will pertain only to three through nine year old children with disruptive behavior disorders and, even within this population, our findings will be limited to a single agency and so will need replication before they could warrant confidence as a basis for treatment planning. But while only a start, this new type of information would be a beginning of an extremely important endeavor in the mental health field; and the method we develop, if successful, will enable others to continue and expand work on this endeavor.

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A COMPARISON OF BEHAVIORAL CHANGE TRAJECTORIES OF CHILDREN IN THREE INTENSIVE TREATMENT ENVIRONMENTS

Beech Brook

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The increase in children with complex service needs has placed enormous pressure on the child welfare system and other child service providers (Rosenfeld et al., 1997; U.S. Government Accounting Office, Department of Health & Human Services, 1995). An important subset of children with complex service needs is youth in the most intensive treatment environments such as residential treatment centers, partial hospitalization programs, and treatment foster care homes. Research is needed that can differentiate treatment subgroups and describe the trajectories and pathways that govern a child's entry and movement through care.

Goals and Objectives

The overall purpose of this exploratory study was to improve understanding of child characteristics associated with entry and movement through intensive treatment environments by identifying the correlates of behavior change. Two primary objectives of the study were: 1) to identify and profile the child, family, and placement characteristics of a sample of residential, day treatment, and treatment foster care children, and 2) to examine the differential impact that profile characteristics have on behavior change.

Sample and Study Subjects

A mixed retrospective/prospective design was used to study over 300 children in three intensive treatment environments: residential treatment, day treatment, and treatment foster care during the study period from October 1994 to May 1999. The residential sample of children included 142 consecutive residential admissions comprising 130 distinct children; the day treatment sample consisted of 101 consecutive admissions, and the foster care sample consisted of 119 children over the age of five, consecutively admitted from January 1995 to October 1998. The treatment foster care program admits children younger than the age of five, however, they were not included in this study (i.e., with the exception of three older toddlers) because the instrument that was used to collect corresponding behavioral rating data had a range of five to eighteen years of age. Additionally, a number of the younger children, and a few of the older children, had briefer emergency stays that were not considered to be representative of the type of youngster who typically requires longer term foster care treatment in a more intensive level of care.

Study Variables

Study variables used in the investigation come from three sources: the agency's administrative database, behavioral and profile data collected from an intensive chart review, and behavioral rating data collected by teachers and agency staff in a longitudinal fashion. The variables used for profiling this population and modeling interactions included: age, race, gender, I.Q., program level, length of stay, number and type of previous placements, direction of movement through placements (i.e., return to partial hospitalization), age at the time of first out-of-home placement, documented history of abuse by type of

abuse (i.e., physical, sexual, neglect), custody status (permanent vs. temporary), discharge environment (i.e., relative home, adoptive home, foster care, group home, etc.) and primary caretaker characteristics (i.e., history of homelessness, mental illness, limited intelligence, domestic violence, prostitution, alcohol abuse, drug abuse).

Extensive chart reviews were conducted by research staff utilizing a protocol of standard definitions for identifying the presence or absence of variable information within the chart. The charts for these children were typically hundreds and sometimes over a thousand pages long, including numerous reports, progress notes, social histories, and testing information. Evidence of the investigated phenomenon (i.e., each profile variable such as sexual abuse) needed to be clearly and explicitly documented in the chart in order to record a positive finding. The data collected via the chart reviews should be considered conservative estimates of the profile variables due to the cautious review criteria that were used in order to attribute a positive finding (i.e., sexual abuse vs. no sexual abuse).

Instrumentation

The Devereux Scales of Mental Disorders (DSMD) (Naglieri, LeBuffe, & Pfeiffer, 1994) was the primary instrument used to measure psychiatric symptomatology. The DSMD is a 110-item (or 111-item for the child version) behavior rating scale designed to evaluate behaviors related to psychopathology in children and adolescents. The instrument has three composite scores (externalizing, internalizing, and critical pathology), each made up of two subscales (conduct and attention for the externalizing composite, depression and anxiety for the internalizing composite, acute problems and autism for the critical pathology composite) and an overall DSMD total score. The DSMD total and composite scales have excellent internal reliability (Cronbach's alpha of .97 for Total Scale score) and test-retest reliability, and satisfactory interrater reliability with a clinical population (Cronbach's alpha of .52 for Total Scale score). A DSMD total score of 60 has been empirically determined to be the best cut-score for differentiating clinical from non-clinical samples. Generally, T-scores can be interpreted as follows: 40-56 = average; 56-60 borderline; 60-70 = elevated; and >70 = very elevated. In general, children were rated by teachers (for residential and day treatment children) and their primary caretakers (i.e., parents, relatives, foster parents, adoptive parents) on a quarterly basis.

Analytic Strategy

Descriptive and cross-sectional statistical analyses were used to describe and profile the treatment foster care sample, and explore key differences in discharge outcomes. Hierarchical Linear Modeling (HLM), or growth curve analysis (Bryk & Raudenbush, 1992), was the primary statistical technique used for multivariate modeling to analyze the differential change rate of a behavioral rating score (e.g., DSMD total score) over time. The HLM analysis was used to address research questions regarding baseline DSMD scores, shape (i.e., linear, curvilinear) and direction of behavioral change (i.e., upward, downward), and important child factors predicting change. In HLM, the unit of analysis is the observation of individual behavior at a particular time point, therefore, multiple observations occurring at different times are nested within individuals. The individual change on the outcome variable was represented through a two-level hierarchical model. At level one, each individual's change was represented by an individual growth trajectory that depended on a unique set of predictors (i.e., a grand baseline, linear or curvilinear terms measuring rate of change, and time-varying covariates). These individual growth parameters became a set of outcome variables in a level-2 model, which were further regressed on time-fixed individual characteristics (Bryk & Raudenbush, 1992). The authors recently developed an improved, three-level HLM (Guo & Hussey, 1999), which adds an additional set of random effects to control for the impact of multiple raters (i.e., over time a child was often reviewed by both a

teacher and a primary caretaker). In this analytical framework, children's behavioral ratings made by different raters at different points form the first level; raters associated with different study children form the second level, and the study children form the third level. To investigate children's behavioral differences at baseline and how their behavior changed over time, we used HLM to separately analyze subgroups of residential, day treatment, and treatment foster care children whose DSMD scores met criteria for dynamic modeling.

The analysis of residential children was based on the subset of 57 children whose behavior rating data met the necessary requirements for dynamic modeling. In almost all cases, subjects had three or more ratings, including at least one entry rating, and a closed episode of service (i.e., discharge) in order to address questions related to change over time and length of stay. During the observational period, both teachers and primary caretakers (i.e., cottage staff) collected behavior rating (Devereux Scales of Mental Disorders – DSMD) scores. On average, each child was evaluated by 4.26 raters (*SD* = 1.84) and each rater made 2.6 ratings (*SD* = 2.02). Fifty-one percent of the 634 ratings were made by teachers.

The analysis of day treatment children was based on 97 children. During the observational period, both teachers and primary caretakers collected DSMD scores. In total, 915 separate ratings were analyzed. On average, each child was evaluated by 3.06 raters (*SD* = 1.23) and each rater made 3.08 ratings (*SD* = 2.27). Sixty-one percent of the 915 ratings were made by teachers.

The analysis of treatment foster care children was based on 97 clients who had DSMD ratings across at least two time points, and therefore, were suitable subjects for studying behavior change. During the observational period, foster parents as well as some teachers collected DSMD scores. In total, we analyzed 573 ratings. On average, each child was evaluated by 1.6 raters (*SD* = 0.89) and each rater made 3.75 ratings (*SD* = 2.82). Twelve percent of the 573 ratings were made by teachers for treatment foster care children enrolled in the partial hospitalization program.

Cross Sectional Profile Analysis

Profile characteristics for the three groups of children are presented in Table 1. Boys make up the majority of residential and day treatment children (72.3% and 68.2%), while girls make up the majority of treatment foster care children (59.7%). The treatment foster care sample is predominantly African American (88.2%) compared to the residential treatment program (42.5%), which accepts referred children from throughout the state of Ohio. Neglect is the most common form of documented child maltreatment, followed by physical abuse and then sexual abuse. These residential and day treatment children in particular have extensive histories of severe and chronic maltreatment involving neglect, physical abuse, and sexual abuse. Documentation of physical and sexual abuse was much less apparent in treatment foster care children, where historical information was less accurate and more difficult to obtain. An important finding, however, is the significant portion of the foster care children who come from families with high levels of drug (76.5%) and alcohol involvement (42%). The comorbidity of child maltreatment, including physical abuse and high levels of alcohol and drug use among caretakers, has many adverse developmental effects. Such comorbid factors may help to partially explain the low average full scale IQ (82) score for this sample. The children across all three programs have experienced a significant number of previous out-of-home placements prior to admission to Beech Brook, ranging from a mean of 6.59 (*SD* = 4.00) in residential treatment to 4.48 (*SD* = 3.39) in treatment foster care. This is particularly concerning given the young average age, approximately ten years old, of this sample.

Table 1. Profile Characteristics

Variable	Residential	Day Treatment	Treatment Foster Care
Number of Children	142	101	119
Mean Age at admission	10 (*SD* = 1.830)	10.3 (*SD* = 2.21)	9.7 (*SD* = 4.03)
Male	71.6 72.3%	68.6%	40.3%
Female	27.7%	31.4%	59.7%
African American	42.3%	64.7%	88.2%
Caucasian	49.2%	29.4%	5.0%
Other	8.4%	5.9%	6.7%
I.Q.	82.5 (*SD* = 17.35)	81.8 (*SD* = 16.15)	82.8 (*SD* = 13.92)
Permanent Custody	38.1 37.7%	43.1%	37.6%
Age at First Out of Home Placement	4.9 (*SD* = 3.59)	4.6 (*SD* = 3.57)	5.52 (*SD* = 3.67)
Mean Total Number of Out of Home Placements	6.60 (*SD* = 4.00)	5.06 (*SD* = 3.13)	4.48 (*SD* = 3.39)
% of Children with a History of Psychopharmacologic Medication Use	92.2%	91.2%	51.7%
History of Child Neglect	68.5%	64.7%	41.2%
History of Child Physical Abuse	62.7%	61.8%	17.6%
History of Child Sexual Abuse	7.0%	44.1%	2.5%
History of Parental Alcohol Use	43.8%	41.2%	42.0%
History of Parental Drug Use	49.2%	55.9%	76.5%
History of Parental Prostitution	4.50%	5.9%	8.4%
History of Parental Incarceration	12.3%	14.7%	20.2%
History of Parental Mental Illness	40.8%	31.4%	16.0%
History of Homelessness	6.9%	4.9%	9.2%
History of Domestic Violence	16.2%	14.7%	7.6%

In reviewing parent and caretaker characteristics, a full 40.8 percent of the residential children's parents and 31.4 percent of the day treatment children's parents have psychiatric histories of mental illness. This may help to partially account for the fact that 92.2 percent of the residential children have histories of past or current psychopharmacologic treatment, involving the use of a diverse array of psychopharmacologic agents. The medications are often used in combination to address the wide variety of psychiatric symptoms displayed by the subjects.

HLM Analysis

Similar to findings drawn from other statistical models, statistical significance of a variable from HLM (i.e., a *p*-value less than .01 or .05) indicates that such effect is likely to hold true in long run, or in a population who shares the characteristics with this sample. For each variable of interest that we analyze, we control for the effects of other variables held constant. For instance, if we are interested in the impact of out-of-home placements on the DSMD total score, we control for all variables in the equation other than the total number of out-of-home placements held constant. Under this condition, "other things being equal" means that the intercept, time, rater, sex, race, age, IQ, or other variables (i.e., parents' drug abuse, parents' alcohol abuse, parent's incarceration, parents' mental health problem, domestic violence, custody type), and the random effect associated with children as well as the random effect associated with raters are all held constant. Table 2 presents the results of the three-level HLM analysis for the DSMD total score. The major findings of the HLM analysis are summarized below by program.

Table 2. Estimated Coefficients / Significance Testing Based on the Three-Level Hierarchical Linear Model (HLM) and Variance Components

	Residential	**Day Treatment**	**Treatment Foster Care**
Fixed Effect	Total DSMD Score	Total DSMD Score	Total DSMD Score
Intercept	91.74 **	93.65 **	68.84**
Time (Unit change of the score per day)	-.001	-.007**	-0.002
Rater – Teacher (Parent/Cottage Staff is the reference)	-6.75**	-7.53**	-2.58
Gender – Male (Female is the reference)	-6.12**	-5.14**	1.03
Race – African American (Other is the reference)	-2.31	-2.07	-2.71
Age at the first rating	-1.13*	-1.35**	-0.46
IQ	-0.14**	-0.19**	-0.12
Total number of previous out-of-home placements	0.10	0.61*	1.10**
Variance Components			
% due to individual	76.51%	56.5%	62.7%
% due to rater	19.54%	37.5%	30.8%
% residual	3.95%	6.0%	6.5%

** $p < .01$, * $p < .05$

Residential Treatment. These children did not change much in their behavior, as shown by an insignificant impact of the "time" variable. The mean values remained relatively stable around the level of 60, which is the clinical cut-off score for the DSMD. The variables that were statistically significant in predicting children's differences on the DSMD total score in included rater, gender, age, and IQ. These variables can be interpreted as follows:

- Other things being equal, teachers rated children more positively (6.75 lower) than did caretakers at any point in time during their residential stay ($p < .01$). The difference may be an indication that children behaved differently between settings: they presented more disturbed behavior in the cottage or in the residential milieu than in the more highly structured school setting.
- Other things being equal, boys were judged to be less behaviorally disturbed than girls at any point in time by 6.12 ($p < .01$).
- Young children generally presented more disturbed behavior. Other things being equal, a one-year increase in age at the initial rating decreased the DSMD total score by 1.13 ($p < .05$).
- Children with higher IQ scores presented less disturbed behavior. Other things being equal, a one-unit increase in IQ score decreased the DSMD total score by 0.14 ($p < .01$).

Day Treatment. Over time, the children changed their behavior at a rate of decreasing DSMD total score by 0.007 per day ($p < .01$) or 5.114 points in a two-year period. The mean values remained relatively stable around the level of 60, which is the clinical cut-off score for the DSMD. Results show that the following variables (i.e., rater, gender, age, IQ, number of previous out-of-home placements) were important correlates of children's DSMD total score and its change:

- Other things being equal, teachers rated children more positively (7.53 lower) than did caretakers at any point ($p < .01$).
- Other things being equal, boys were judged to be less behaviorally disturbed than girls at any point in time by 5.14 ($p < .01$).
- Young children generally presented more disturbed behavior. Other things being equal, a one-year increase in age at the initial rating decreased the score by 1.35 ($p < .01$).
- Children with higher IQs presented less disturbed behavior. Other things being equal, a one-unit increase in IQ decreased the DSMD total score by 0.19 ($p < .01$).
- Children who had a high number of out-of-home placements usually presented more disturbed behavior. Other things being equal, a one-time increase in the total number of out-of-home placements increased the score by 0.61 ($p < .05$).

Treatment Foster Care. Over time, the children did not change much on their DSMD total score, as shown by an insignificant impact of "time." Results revealed that the number of previous out-of-home placements was important in predicting children's change on the DSMD total score. Children with a higher number of out-of-home placements presented more disturbed behavior. Each additional out-of-home placement increased the total DSMD score by 1.1 units at any point in time ($p < .01$).

Other analyses of the treatment foster care sample demonstrated that children changed their behavior over time on the internalizing composite score, by decreasing 0.003 units per day, or 3.29 points in a three-year period ($p < .01$); and on the critical pathology composite score, by decreasing 0.004 units per day, or 4.38 points in a three-year period ($p < .05$). The internalizing composite scale measures symptoms of anxiety and depression. The critical pathology composite scale measure is comprised of the acute problems and autism subscales. The acute problems scale measures behaviors that are hallucinatory,

primitive, bizarre, self-injurious, or dangerous (e.g., fire setting, animal torture, inappropriate sexual behavior). The autism scale measures problems of impaired social interactions and communication, and unusual motor behaviors (e.g., appears overly high in mood, repeatedly makes odd movements).

Discussion

Children in intensive levels of out-of-home treatment are a highly complex and poorly understood population, often overlapping multiple child-service systems including health, mental health, child welfare, and special education. Overall, this sample of children is characterized by the level and multiplicity of their psychosocial adversities including extensive histories of abuse and neglect, high numbers of previous placement disruptions, extensive medication histories, low average IQ scores, and significant levels of psychiatric symptomatology across multiple symptom domains (i.e., internalizing, externalizing, and critical pathology). High levels of parental mental illness distinguish the caretakers of residential and day treatment children, while high levels of drug abuse distinguish the caretakers of the treatment foster care children. The long-term prognoses for these children are particularly concerning, especially when one considers the negative outcomes associated with the combined, cumulative effects of biologic and environmental risk factors (Gabarino, 1999).

Children in day treatment evidenced the most significant change over time, followed by foster care (for internalizing and critical pathology scores). Residential trajectories remained relatively flat, hovering around 60. It is important to note that the first DSMD rating occurred during the first quarter of care, following at least 30 days of careful observation by teachers, parents, foster parents, or treatment cottage staff. The stabilizing effect of the therapeutic milieu may have already manifested an impact on the more disturbed residential treatment children, particularly in the highly-staffed school setting, where average teacher scores were typically in the subclinical range (generally < 60), and on the average 6.75 points lower than cottage staff scores. Unlike many other treatment studies, the subjects in residential treatment who were more impaired remained in treatment longer, as opposed to dropping out, running away, or being discharged. Their behavior ratings, therefore, tend to elevate the average behavior rating scores over time. Barth et al., (1994) have suggested that placement milieus serving different populations may have a ceiling effect that stabilizes behavior at a level necessary for safe functioning. It is critical that stabilization features of intensive treatment milieus be identified, transferred, and sustained in community settings, particularly given the evidence supporting the continuity of disruptive behavior disorders especially for youth who display an early onset pattern.

Younger children and females may be at particular risk to be under identified for much needed intensive treatment services. The early onset of serious and significant behavioral impairment may signal a particularly foreboding developmental trajectory. While the gender and age findings are uncommon based on earlier residential treatment outcome studies (Pfeiffer & Strzelecki, 1990), they may reflect the impact of more restrictive admission criteria that are less sensitive to the problems of females than males (Eme, 1992). Professionals may be less likely to recognize the intensive treatment needs of young and/or female children without compelling and repeated evidence of significant and sustained deterioration.

For the day treatment and treatment foster care children, the number of previous out-of-home placements was a significant predictor of impairment and change in psychiatric status over time. While the temporal relationship between out-of-home placements and psychiatric impairment is unclear, each additional out-of-home placement was predictive of increases in externalizing, internalizing, and critical pathology domains. The significance of this variable in relation to all the others that were specifically modeled (i.e., type of abuse, age, IQ, gender, parental incarceration, parental substance abuse, parental mental illness, domestic violence, and custody status) compels both researchers and practitioners to further investigate the meaning of multiple out-of-home placements in the lives of young children. The

consequences of multiple failed placements need to be carefully weighed in the clinical decision-making process from a multitude of perspectives. These perspectives include concerns about removing children from their biologic families, concerns about the movement of children in child welfare placements, concerns about the "underplacement" of children in settings that do not match their level of need, and concerns regarding the expeditious return of children to marginal family situations. Given the high number of placement disruptions and the relationship to the psychiatric status of treatment foster care children, services to address attachment and bonding issues are essential to the repertoire of intensive and out-of-home care treatment providers.

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HIGH HOPES:
RELATIONSHIP BETWEEN CASE MANAGER EXPECTATIONS AND LEVEL OF FUNCTIONING OF CLIENTS WITH SCHIZOPHRENIA

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Recent models of community mental health treatment emphasize the importance of hope in helping a person recover from mental illness. For example, the Strengths Model of case management, currently the leading model in the state of Ohio, highlights the belief that psychiatric patients are capable of growth and have the potential to achieve the same accomplishments as people not affected by mental illness (Rapp & Wintersteen, 1989). In fact, research on interpersonal expectancy effects has shown that many people perform better simply because a significant person in their life has expected them to do so (Rosenthal, 1994).

For individuals diagnosed with schizophrenia, a sense of hope about the future may be particularly difficult to realize. For decades, schizophrenia has been characterized as a progressively deteriorating, chronic mental illness. Contrary to common beliefs, recent studies have revealed that individuals with schizophrenia actually have a good chance for improvement in functioning and recovery from their illness (Ganev, 2000; Harding, Brooks, Ashikaga, Strauss, & Breier, 1987a & 1987b). Despite this more optimistic prognosis, the outcomes of individuals diagnosed with schizophrenia are quite varied.

Schizophrenia outcome research has rarely examined the role that mental health professionals may play in the outcomes of their clients (Ryan, Sherman, & Judd, 1994). The case manager is not only one of the primary links to services, but also is a significant figure in the lives of many mental health consumers. The nature of the relationship between the case manager and consumer places the case manager in a prime position to be a conveyor of expectancy effects. While much is known about expectancy effects in other areas of research, very little is known about how these effects may play out in the field of community mental health.

The current study is the second phase of a two-part study examining the relationship between case manager expectations and the level of functioning of clients diagnosed with schizophrenia. The first phase of research established the psychometric properties of a newly developed measure of case manager expectancies toward clients with schizophrenia, the Case Manager Expectancy Inventory (CMEI). The current phase of research examines the relationship between case managers' scores on the CMEI and the average level of functioning (as indicated through archival data) of a sample of consumers diagnosed with schizophrenia with whom they work.

Procedures

A subsample of the phase one case managers was selected to participate in the second phase of research. Phase two case managers were provided lists of four randomly sampled clients with whom they had worked for at least two years who had a primary diagnosis of schizophrenia. Case managers attempted to obtain consent from these consumers for researchers to review their mental health records. Consistent with the methods recommended by Ryan et al. (1994), the consumer variables were

aggregated to the level of the case manager. This yielded a caseload average score for each case manager on each of the consumer variables.

Participants

Case Managers. Participants in the present phase of research were 32 full-time case managers (8 males- 25% and 24 females--75%) who work with individuals with serious mental illness in three Ohio counties. The majority of the case managers were Caucasian (81.3%) and the average age was 36.48 (*SD* = 10.34). Fifty-six percent of the sample held a bachelor's degree and 37.5 percent held a master's degree. Eighty-one percent of the case managers held their highest degree in a human service related field. Case managers had an average of 30.53 (*SD* = 10.51) consumers on their caseloads and just over half (53%) earned less than $25,000 a year. The average length of time case managers were employed in the mental health field was 9 years (*SD* = 8.03).

Mental Health Consumers. Two-year retrospective reviews were conducted on the mental health records of 97 consumers diagnosed with schizophrenia. The average age of the consumers was 46.37 (*SD* = 14.31) years and 58 percent were male. The majority of the clients (82.5%) were Caucasian and most (86.6%) were not married. Consumers had completed an average of 11.55 (*SD* = 1.61) years of education and had been in the mental health system for 17.66 (*SD* = 11.66) years. Seventy percent of the consumers had been receiving services for more than five years (*M* = 7.80; *SD* = 3.54). The average age of onset of illness was 28 years (*SD* = 12.41) and 72 percent of the consumers had been hospitalized six times or less (*M* = 7.05; *SD* = 8.14) since the onset of their illness.

Preliminary Results: Consumer Archival Data

Analysis of the chart review data revealed that consumers averaged nine changes (increases or decreases) in the medication prescribed by the agency psychiatrist over the course of the two-year chart review period. In terms of contact with case managers, most consumers (42.3%) saw or had telephone contact with their case manager one to two times per month. Fifty percent of these contacts took place in the office. The most frequent case manager/client activity was related to medication monitoring and the least frequent activity was related to employment.

At the beginning of the chart review period, 56 percent of the consumers were living independently and 28 percent were living with family members. Most of the consumers (67%) were not hospitalized at all during the two-year study period. In terms of employment, 21 percent of the clients were employed at the beginning of the chart review, primarily in part-time positions. Fifty-nine percent of the consumers did not work at all during the chart review period. In terms of goals, consumers identified an average of 4.20 goals on their treatment plans. On average, progress was made on 15 percent of these goals.

Measuring Case Manager Expectations: The Case Manager Expectancy Inventory (CMEI, O'Connell, 2000)

The CMEI is a 42-item self-report inventory that assesses the degree to which case managers expect consumers with schizophrenia to be able to perform the tasks associated with a variety of "normal" adult roles. The items are precipitated by the stem: " I expect that clients with schizophrenia have the ability to…". Case managers respond to items on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The CMEI has been found to have good construct validity and internal reliability (O'Connell, 2000). Scores on the CMEI were moderately related to opinions about mental

illness, professional burnout, and personal optimism. Principal components analysis revealed three factors:

- *Community Integration*: contains 18 items reflecting skills necessary to integrate into the community; i.e., abiding by rules, demonstrating self-control, being a courteous neighbor (α = .96)
- *Personal Agency*: contains 13 items reflecting a person's ability to solve problems and manage difficult situations; i.e., handle rejection, protecting self from harm, knowing how to handle crises (α = .93)
- *Valued Social Roles*: contains 14 items reflecting a person's ability to occupy normal social roles; i.e., having a career, providing for their family, taking classes, working (α = .92)

Measuring Overall Functioning

- *Employment Functioning:* summary variable based on number of days employed and the number of months with progress in employment (range from 1 to 4)
- *Functioning in Living Situation:* summary variable based on number of days living independently and number of months with progress in living situation (range from 1 to 4)
- *Overall Functioning:* overall summary variable based on number of days employed, number of employment progress months, number of days living independently, number of living progress months, and percentage of goal improvement (range from 2 to 10)

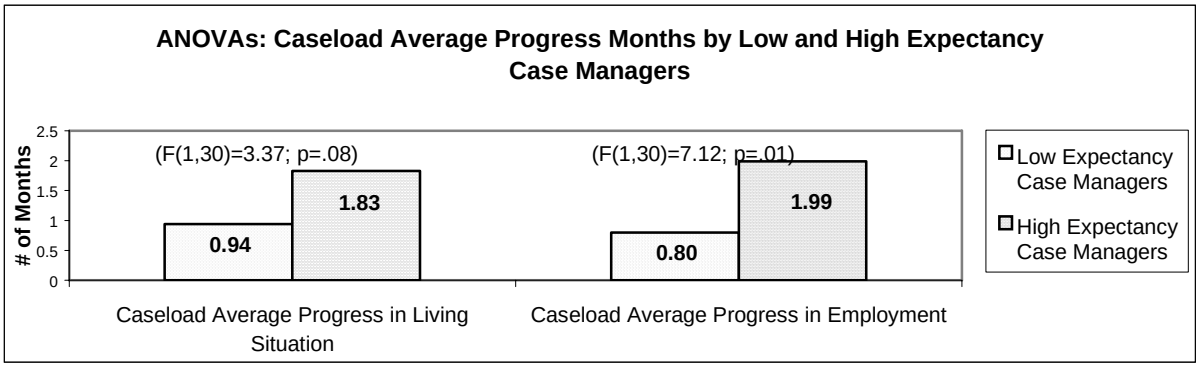
Results

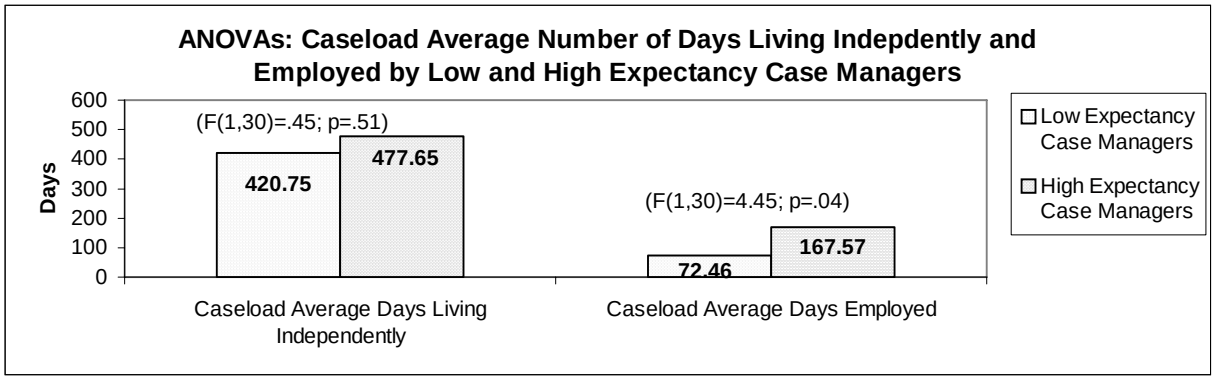
Correlations. Analysis of the relationship between the Overall Scores on the CMEI and the average consumer functioning variables indicated that CMEI scores were significantly and positively correlated with the average number of months a case manager's clients had progress in employment (r = .52; p < .01) and the average percentage of client goal improvement (r = .41; p < .05). Case manager expectations were also significantly and positively correlated with Employment Functioning (r = .57; p < .001), Functioning in Living Situation (r = .40; p < .05), and Overall Functioning (r = .65; p < .001).

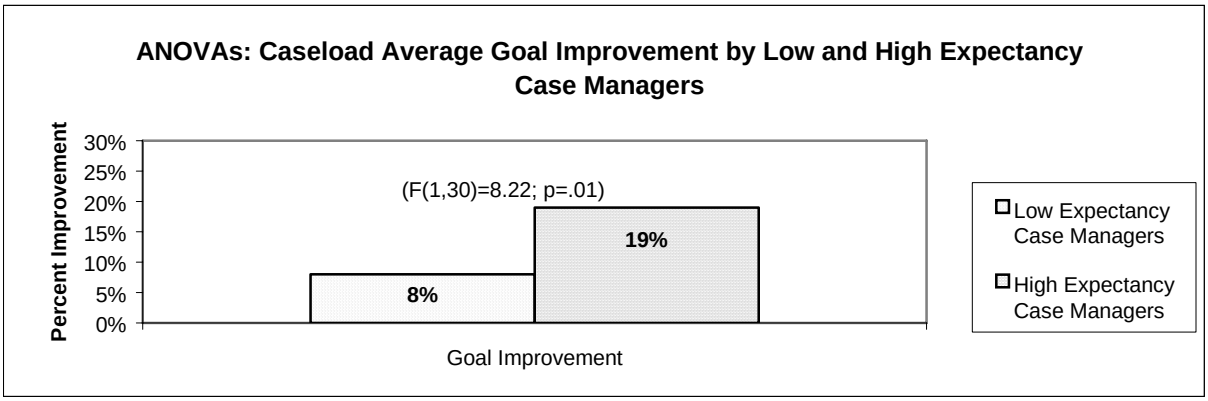
ANOVAs. A series of univariate ANOVAs revealed that case managers with higher Overall Expectations had clients on their caseloads that averaged significantly more months with progress in employment (F [1, 30] = 7.12; p = .01), greater number of days employed (F [1, 30]=4.45; p = .04) and a greater percentage of improvement in their goals (F [1, 30] = 8.22; p = .01) than case managers with lower expectations. Case managers with higher expectations also had clients who averaged higher scores on the Employment Functioning variable (F [1, 30] = 8.83; p = .01) and the Overall Functioning variable (F [1, 30] = 14.61; p = .001) than case managers with lower expectations. There were no significant differences between case managers in terms of number of days consumers lived independently or the number of months with progress in living situation.

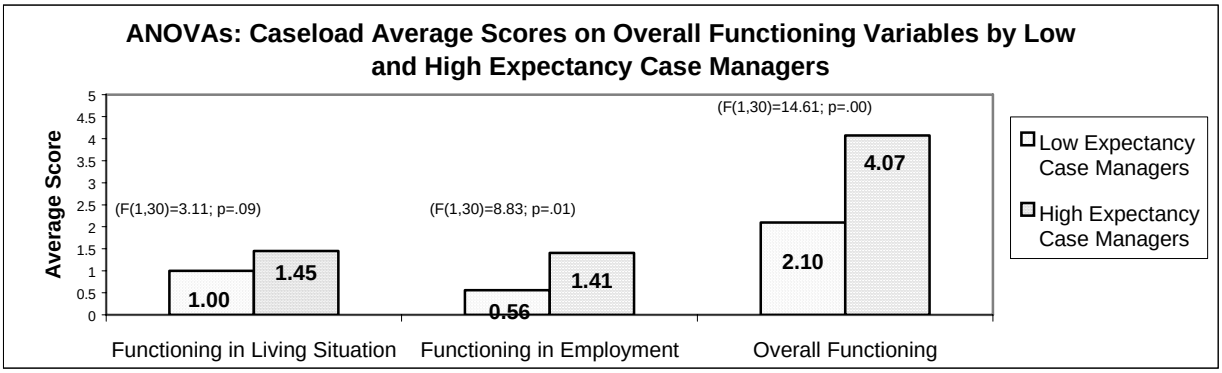
Regression Analyses. Regression analyses were conducted to determine the amount of variance in Functioning in Living Situation, Employment Functioning, and Overall Functioning accounted for by case manager expectations, above and beyond consumer baseline functioning and service variables. The first block of variables contained metropolitan statistical area (to control for outcome differences observed between metropolitan and rural consumers) and baseline functioning indicators (baseline living environment, baseline employment status). The second block contained service variables (medication changes, support activities, total contact). Overall CMEI scores were entered into the third block. None of the blocks of variables accounted for a significant amount of variation in the Overall Functioning in Living Situation variable. Results from the regression analyses reveal that case manager expectations

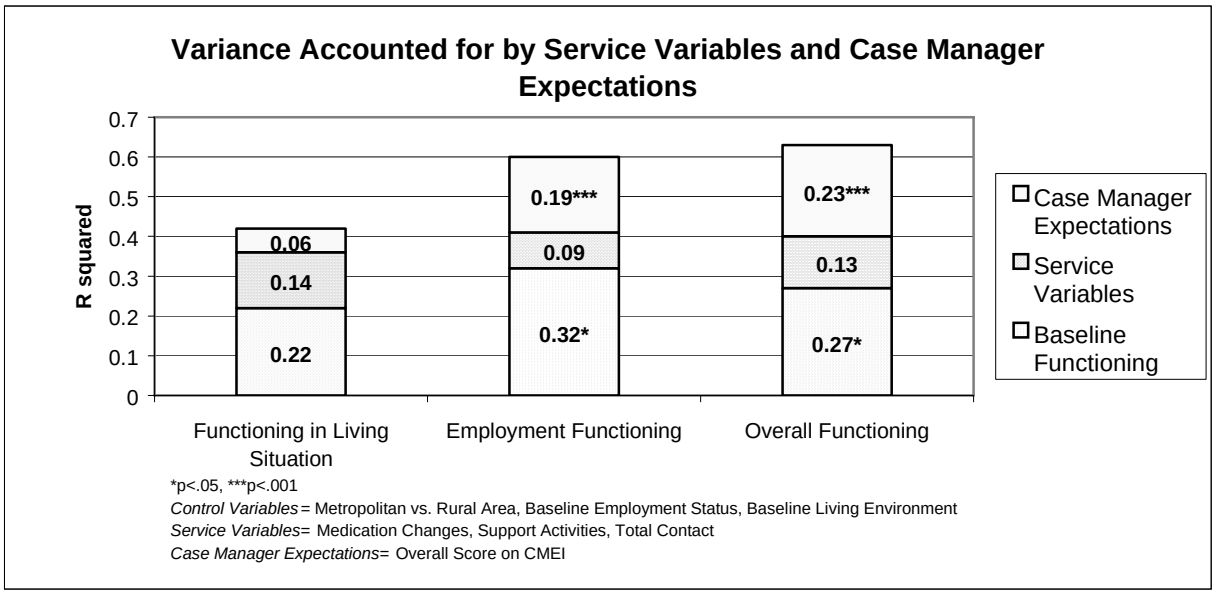
accounted for a significant amount of variance in Employment Functioning (ΔR^2 = .16; p = .001) and Overall Functioning (ΔR^2 = .23, p = .001) while controlling for the service variables and baseline level of functioning.











Discussion

Hope and high expectations are considered by many to be important aspects in the recovery from mental illness. Case managers may be an essential source of this hope for individuals diagnosed with schizophrenia. While expectancy effects have been examined in other areas of research (primarily in the field of education), there has been very little examination of these effects in the field of community mental health. It has been hypothesized that the expectations that a case manager holds for his/her clients may impact the outcomes that those clients can achieve. The present study attempted to examine the relationship between case manager expectations and the level of functioning of clients diagnosed with schizophrenia (as indicated through archival data).

The results indicate that case manager expectations may be an important aspect of consumer functioning, particularly in regard to employment. Although this study cannot confirm the existence of interpersonal expectancy effects between case managers and their clients, it is a first step in examining these effects in community mental health settings. Future research may be directed toward validating the current findings by using alternative methods of data collection and prospective designs.

Studies have shown that expectations can be modified (Darley, Fleming, Hilton, & Swann, 1988). If future studies validate the findings of the present research and further document the existence of expectancy effects in community mental health settings, interventions that have direct relevance for consumer outcomes can be designed. Interventions may include things such as case manager awareness training and educational efforts that are consistent recovery principles of hope and positive expectations (Anthony, 1993).

Individuals with serious mental illness face many challenges to both their long-term recovery and their success in coping with day-to-day events. Case managers often are instrumental to helping consumers navigate through a very complex system of service providers, organizations, and communities. If a case manager does not believe in the abilities of the people with whom they are guiding, it may be very easy for people with serious mental illnesses to wind up even farther off course. This study demonstrated that case managers who not only believe, but *expect*, that people with schizophrenia have the ability to achieve more normal social roles may guide their clients in ways that ensure the fulfillment of their prophecy.

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EXPECTATIONS FOR A NORMAL LIFE: YOUNG ADULTS AND THEIR PARENTS COPING WITH SERIOUS MENTAL ILLNESS

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Advances in psychotropic medication and community mental health treatment offer new hope to people with serious mental illness and their families. Recently developed pharmacological treatments can be beneficial for people coping with both chronic and less severe forms of psychiatric disability. Over the years, models of community mental health have moved from deinstitutionalization with few community supports to more comprehensive models of community care, psychosocial rehabilitation and recovery. Self-help movements for both families and adults with mental illness have contributed to a changing social landscape by facilitating mutual help, political activism and greater public awareness about mental illness. Now, more than ever before, people with serious mental illness have increasing opportunities to remain in their communities, interact with their families and participate in community life.

Yet despite these scientific and social changes, serious mental illness continues to be one of the most personally devastating and costly types of health problems in the United States. Mental illness can prevent individuals from achieving or maintaining valued adult roles such as that of husband or wife, parent, employee, friend. Often parents must resume taking care of their ill adult child and must deal with their own disappointment, personal distress and uncertainty about the future. Although new medications help to significantly reduce symptoms associated with mental illness, it is increasingly obvious that symptom reduction does not necessarily lead to community integration and a better quality of life for a majority of adults.

A life course perspective has been proposed as a framework that allows researchers to describe the individual and social forces that impact adults with mental illness and their families over time. This perspective assumes that adults with psychiatric disability generally share the expectations, hopes and goals of the larger society. Mental illness is viewed as a traumatic life event that dramatically alters the life paths of adults and families. A life course approach does not focus exclusively on individual deficits, but considers how adults and their families cope with disruptions in life stage activities and the timing of critical social transitions caused by the illness.

Central to a life course approach are the concepts of social time and life course trajectories. Socially constructed "timetables" provide a sense of when people should accomplish major social role transitions such as living independently from parents, obtaining employment, getting married and having children. Studies suggest that adults are aware of the timing of life transitions and make judgments as to whether or not they are "on time" or "off-time" with respect to accomplishing major social roles. The timing and duration of social role transitions are reflected in the "paths" or life course trajectories of individuals over time.

We recently completed a qualitative study of 30 adults with schizophrenia, their parents and well siblings from nine families to explore the importance of life course issues (Stein & Wemmerus, 2001). In listening to the accounts of adults and their families, we came to understand that what researchers call "social off-timeness" and "life course trajectories," adults with schizophrenia and their families were describing as the "loss of a normal life." Regardless of the age of illness onset, or number of years since diagnosis, adults and their families described this loss as one of the most troubling aspects of coping with

schizophrenia.

In the present research project, we empirically examine life course issues as they relate to coping with serious mental illness in early adulthood. The two year, longitudinal study focuses on adults between 18 - 30 years of age who have been diagnosed with a form of schizophrenia or bipolar disorder and their parents. In the larger project, we examine the personal expectations, social relations, social roles, feelings of loss, and personal well-being reported by 48 adults with serious mental illness and their parents. The project describes life course disruptions that result from mental illness, similarities and differences in perceptions of adults and parents, and changes in individual and family perceptions of life course issues over time. The views of young adults and their parents coping with mental illness are compared to other young adults and their parents coping with dismissal from college for academic reasons--an unexpected, but less severe, life course disruption.

Studies that examine the social context of adults with mental illness and their families have direct implications for advances in community mental health treatment. Mental health services must address the restriction of opportunities, personal distress and social stigma that comes with being "different" or "off-time" in society to facilitate consumer empowerment and community integration. Studies that examine how adults and families experience serious mental illness, and respond to disability, disadvantage and difference are key to improving practice and outcomes for those served by the mental health system. Community mental health can take a leading role in developing services and settings where adults with psychiatric disability can work toward and achieve their own goals and preferred futures.

Research Questions

The conceptual domains for the research project are interrelated, but for the sake of clarity, research questions are organized in the following three separate domains. We examine 1) the impact of life course disruptions on young adults; 2) parents' perceptions of life course disruptions and 3) changes in life course trajectories over time.

Recruitment of Participants

Participants for the study were recruited with the cooperation of local mental health centers in Northwest Ohio. A total of 48 young adults between the ages of 18 and 30 years old who were diagnosed with a form of schizophrenia or bipolar disorder and a total of 46 parents participated in the first phase of the research. A comparison sample of young adults who were dismissed from college and their parents were also recruited for the research.

Procedure

Young adults and parents who agree to participate in the research complete separate, semi-structured interviews that last approximately two hours. Participants are interviewed in their place of residence or at a convenient community location by trained interviewers in the doctoral program in clinical psychology. Participants receive $30 as a token of appreciation for their participation in the research.

Overview of Study Measures

The semi-structured interview for adults and parents assessed the following domains:

- Personal Networks (Personal Network Interview; Stein, Bush, Ross & Ward, 1992)
- Personal Story of Illness Onset and First Hospitalization Experience (Personal Account using Qualitative Methods)
- Use of Mental Health Services
- Personal Strivings (Strivings Assessment Scales; Emmons, 1986)
- Hopes and Lost Expectations (Personal Account using Qualitative Methods)
- Social Roles (Social Role Identification Scale)
- Feelings of Loss as a Result of Illness/Dismissal (Perceptions of Loss Inventory)
- Religious Coping (RCOPE; Pargament, Koenig, & Perez, 2000)
- Alcohol Use (CAGE; Ewing, 1984)
- Psychological Symptoms (Brief Symptom Inventory; Derogatis & Melisaratos, 1983)
- Interpersonal Loneliness (UCLA Loneliness Scale; Russell, Peplau, & Ferguson, 1978)
- Stress related Personal Growth (Park, Cohen & Murch, 1996)
- Subjective Well-being (Psychological Well-being Scales; Ryff, 1989)
- Demographic Information

Status of the Research

Graduate student colleagues and I are currently in the second year of data collection and are in the process of entering a vast amount of information from adults and their parents from the first data collection. Thus far, we have conducted preliminary analyses on some aspects of the study for the sample of adults with mental illness obtained during the first phase of data collection. Specifically, we have begun to examine adults' accounts of their first hospitalization experience, their feelings of loss and use of religious coping, and the nature of their personal strivings for the future.

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FACILITATORS AND BARRIERS TO SUPPORT GROUP PARTICIPATION

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Currently, few low-income and minority caregivers of persons with severe mental disability participate in support groups, despite efforts to increase their participation. Very little is known at this time about the factors affecting these caregivers' use or non-use of support groups. This study examined the facilitators and barriers to support group participation among low-income and minority family caregivers of persons with severe mental disability.

Mental illness affects not only the individual with the illness, but the entire family of that individual, as well. Studies over the past several decades have provided consistent evidence that family caregivers of persons with serious mental illness suffer from a number of significant stresses and moderately high levels of burden (Biegel, Song & Chakravarthy, 1994; Cook & Pickett, 1988; Doll, 1975 & 1976; Freeman & Simmons, 1963; Grad & Sainsbury, 1963; Song, Biegel & Milligan, 1997).

Inadequate social support has emerged as a significant factor contributing to the burden experienced by caregivers of family members with severe mental illness (Biegel, Milligan, Putnam & Song, 1994; Biegel et al., 1994). Support groups have been identified as a resource of great potential benefit in helping to meet the needs of family caregivers and in reducing caregiver burden (Gonyea, 1990; Greene & Monahan, 1989; Ramsey, 1992; Toseland & Rossiter, 1989). Support groups provide social, informational and emotional supports to their members, including some "intangibles" such as the inculcation of hope, understanding and the feeling of belonging (Lieberman & Snowden, 1994).

Few studies to date have investigated the factors affecting support group utilization among family caregivers in general, and those which have done so have focused almost exclusively on caregivers of Alzheimer's disease victims or of the frail elderly. These studies have tended to look more at level of participation of group members than at factors affecting decisions to join or not to join (Burks, Lund & Hill, 1991; Goodman, S., 1991; Lieberman & Snowden, 1994; Molinari, Nelson, Shekelle & Crothers, 1994; Monahan, Greene & Coleman, 1992; Ramsey, 1992).

Specific knowledge of factors affecting minority and low-income caregiver utilization of support groups is even more limited. Only a handful of studies have investigated these issues in even a tangential manner (Biegel & Song, 1995; Henderson, Gutierrez-Mayka, Garcia & Boyd, 1993; Kramer & Nash, 1994; Nash & Kramer, 1993; Simoni & Perez, 1995; Wood & Parham, 1990). There are only a few studies that have examined the effects of support group participation upon caregivers of persons with mental illness (Biegel & Yamatani, 1986, 1987a, 1987b; Hatfield, 1979a, 1981; Levy, 1981; Spaniol & Jung, 1983). Factors affecting these caregivers' participation or non-participation in support groups has

received even less study (Brady, Goldman & Wandersman, 1994; Mannion, Meisel, Solomon & Draine, 1996; Norton, Wandersman & Goldman, 1993).

A review of the literature revealed only a single study (Biegel & Song, 1995) that directly investigated support group utilization among minority and low-income caregivers of persons with severe mental disability. The study investigators identified lack of knowledge, lack of time, lack of transportation, lack of need, lack of accessibility, and concern for confidentiality as potential barriers to caregiver support group participation. Of great significance was the finding that almost one third of the entire sample had never heard of support groups for families of persons with mental illness.

Thus the literature indicates that family caregivers of persons with serious mental illness experience significant burden, and that support groups are of great potential benefit in reducing caregiver burden. The literature further reveals that minority and low-income caregivers of persons with mental illness significantly underutilize support groups. No studies exist which directly examine the factors affecting these caregivers' decisions to join or not join support groups, or those factors affecting their level of participation in support groups of which they are already members.

Conceptual Framework

The conceptual framework for the study is a modified version of the Andersen model (Andersen, 1995; Andersen & Newman, 1973) of health services use. Andersen originally conceptualized three broad categories of variables as impacting on the use of health care services: factors predisposing an individual toward their use; factors enabling or inhibiting their use, and factors conditioning the need for their use. Andersen's original model has since undergone numerous modifications (Andersen, 1995; Bass & Noelker, 1987; Noelker & Bass, 1994) and has been used successfully in modeling outcomes other than the use of health care services, including caregiver support group participation (Monahan et al., 1992).

Research Questions And Hypotheses

This study addresses the following research questions and hypotheses:

Research Question #1: How aware are lower socioeconomic status family caregivers about support groups for families of persons with serious mental illness?

Research Question #2: What are the facilitators and barriers to participation in support groups for families of persons with serious mental illness among lower socioeconomic family caregivers of adults with serious mental illness?

H#1: Caregivers with a higher perceived benefits-to-costs differential of group participation are more likely to be members of support groups than are caregivers with a lower perceived benefits-to-costs differential.

H#2. Caregivers who identify greater numbers of access barriers will be less likely to be support group members than will caregivers who identify fewer access barriers.

H#3: Caregivers with higher levels of service use will be more likely to be support group members than will caregivers with lower levels of service use.

Research Question #3: Among caregivers who are or have been members of support groups, what factors affect degree of involvement and length of participation in the support group?

H#4: Caregivers perceiving a more favorable benefits-to-costs differential will be less likely to have terminated their support group membership than will caregivers perceiving a less favorable benefits-to-costs differential.

H#5: Caregivers perceiving fewer numbers of access barriers will be less likely to have terminated their support group membership than will caregivers perceiving greater numbers of access barriers.

H#6: Caregivers experiencing greater satisfaction with their support groups will be less likely to have terminated their support group membership than will caregivers experiencing less satisfaction with their support group.

H#7: Caregivers perceiving a more favorable benefits-to-costs differential will attend support groups more frequently than will caregivers perceiving a less favorable benefits-to-costs differential.

H#8: Caregivers experiencing fewer numbers of access barriers will attend support group meetings more frequently than will caregivers experiencing greater numbers of access barriers.

H#9: Caregivers experiencing greater satisfaction with their support group will attend support group meetings more frequently than will caregivers experiencing less satisfaction.

Methodology

The study design is a cross-sectional survey in which 221 lower-socioeconomic status adult Black and White caregivers of adults with serious mental illness responded to questions pertaining to support group membership status, knowledge of and attitudes toward support groups, caregiver distress, use of social supports, service use and other related factors. Caregivers were recruited from local agency intake sources and from support groups for families of persons with serious mental illness in Cuyahoga and neighboring counties. Caregivers were interviewed in person, and matched with interviewers by race. Research questions and hypotheses were addressed using a combination of bivariate and multivariate statistical procedures, including logistic regression and ordinary least squares multiple regression.

Although no specific research questions or hypotheses pertaining to the effect of race on the outcome measures were included in this study, given the lower participation rate of Blacks than Whites in support groups for families of persons with mental illness, where appropriate, we conducted statistical comparisons by race.

Findings

Support Group Participation. Of the 221 caregivers in the total sample, 29 percent (65) were current members of support groups for families of persons with serious mental illness, eight percent (17) were former members, and 63 percent (139) had never been members of such support groups. Statistically significant differences were found between Black and White caregivers *vis a vis* support

group membership (χ^2 = 18.111, p < .01). Thirty-six percent (48) of Whites were current members, compared to 20 percent (17) of Blacks; 12 percent (16) of Whites reported having formerly been support group members, whereas only one percent (1) of Blacks did so; and finally, 53 percent (71) of Whites and 79 percent (68) of Blacks reported never having been members of support groups for families of persons with serious mental illness.

Knowledge of Support Groups. Approximately 27 percent of the sample had never before heard of such support groups. This is in keeping with previous research by Biegel et al. (1992), conducted with a similar sample of caregivers drawn from the same geographical region as the present sample; they found approximately one-third (32%) of the caregivers had never heard of support groups for families of persons with serious mental illness. Chi-square analysis revealed racial differences on prior knowledge of support groups that approached statistical significance (p = .06). (There were significant differences in income and educational levels between Black and White caregivers in the sample. Therefore it cannot be determined whether the differences reported here and in the findings below can be attributed unequivocally to race, rather than to socioeconomic factors or some interaction of the two.) Whereas 22 percent of Whites had never before heard of support groups for families of persons with serious mental illness, 34 percent of Blacks had no prior knowledge.

Predictors of Support Group Membership. Hypothesis 1 was supported by the data: the greater a caregiver's perception that benefits of support group participation outweigh costs, the more likely is that caregiver to be a member of a support group, after controlling for other factors. Benefits of support group participation rated highest by support group members were: the acquisition of knowledge about mental illness; improved emotional coping with one's relative with mental illness, and a reduction in the sense of isolation experienced by the caregiver. Conversely, perceived costs of support group participation rated highest by non-members included: frustration that support groups never do anything; the energy drain of constantly focusing on issues of mental illness, and the need to give up other personal or family activities to attend meetings. Benefits and costs of support group participation were scrutinized by race. No significant differences were found between Black and White caregivers.

Hypothesis 2 was supported by the data: for each additional access barrier cited, caregivers were about one-fourth as likely to be support group members. Each of the four access barriers assessed was rated as less prohibitive among current members than among non-members, with all differences being statistically significant. The highest-rated barrier among non-members was lack of time for support group meetings, followed by location of the support group outside the caregiver's neighborhood of residence. Comparisons of individual access barriers by race revealed that Blacks who had never been support group members cited lack of transportation significantly more frequently than did non-member Whites. No comparable difference was found among current support group members.

Hypothesis 3 examined the relationship between the number of services currently being used by caregivers and support group membership status. This hypothesis was not supported by the data.

In all, four factors emerged as significantly correlated with support group membership. Support group membership was correlated with by caregivers being older, having more social support, perceiving more group benefits than costs, and identifying fewer access barriers after controlling for caregiver need and predilections for joining groups. Race was not a significant variable in this model.

Factors Affecting the Level of Caregiver Involvement with their Support Group. Three factors emerged as significant predictors of current vs. former support group membership status: perceived benefits-to-costs of support group participation, number of access barriers, and caregiver race.

Hypotheses 4 and 5 were supported by the data: the more benefits were perceived as outweighing the costs, the more likely caregivers are to remain members of their support group; by contrast, the more access barriers faced by caregivers, the less likely they are to remain group members. Hypothesis 6, which examined the relationship between satisfaction with support groups and membership status, was not supported. Race also emerged as a significant predictor in this equation, with Whites significantly more likely to be former support group members than were Blacks (27% vs. 6%, respectively).

Hypotheses 7, 8 and 9 explored the factors affecting the frequency of support group attendance among current support group members only. None of these hypotheses were supported: neither perceptions of benefits-to-costs, number of access barriers, or satisfaction with the group emerged as significant correlates of frequency of attendance, after controlling for other factors.

Implications and Recommendations

Major findings from this study were as follows:

- Lack of awareness of support groups for families of persons with serious mental illness remains a considerable barrier to the use of such support groups.
- Perceptions of the benefits and costs of support groups are predictive of support group membership.
- Access barriers were significant predictors of support group membership, after controlling for other factors.
- Older caregivers were more likely to be support group members.
- Caregiver-specific social support was positively correlated with support group membership.
- Black caregivers reported significantly lower income, poorer physical health, and greater numbers of access barriers to support group participation. Black caregivers were significantly less likely to be aware of the existence of support groups for families of persons with serious mental illness. Black caregivers were significantly less likely to be current support group members. However, race was not a significant predictor of support group membership after controlling for other variables in the model.

The research yielded several service delivery and policy recommendations:

- Educational campaigns should be launched to better inform family caregivers of the existence, role and function of support groups for families of persons with serious mental illness.
- State and local mental health authorities should take a leading role in developing and disseminating educational campaign about support groups.
- Clergy and religious institutions should be specifically targeted for enhanced dissemination efforts.

- State and local mental health authorities should seek ways of providing respite to caregivers of persons with serious mental illness.

- Support groups should assess their target populations in order to identify and address access barriers.

Implications for future research are:

- Additional research should be conducted to determine if recruitment efforts should focus on younger caregivers.

- Additional research should be conducted to further explore the reasons caregivers stop attending support groups.

- Additional research should be conducted to explore the relationship between support group participation and coping.

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IMPLEMENTING THE RECOVERY MODEL FOR PERSONS WITH SERIOUS MENTAL ILLNESS

Northcoast Behavioral Healthcare

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Despite almost 100 years of psychological, and now ever-increasing biological, research into schizophrenia, the nature of this condition remains disappointingly enigmatic. This search for understanding of schizophrenia has been characterized by "cycles of disenchantment", wherein particular theoretical perspectives have held ascendancy only later to wane in interest. Psychological, particularly psychodynamic, interpretations of the nature of schizophrenia are no exception to this rule and have been fervently promulgated during the early and mid-20th century. These views have lost considerable impact. Indeed, in reviewing the outcome of psychodynamic psychotherapy in the treatment of schizophrenia, Mueser and Berenbaum (1990) advocated the cessation of the use of this modality in the treatment of psychotic patients, pending further research.

It is in the context of the recent developments in the drug treatment of schizophrenia that the current role of psychological and psychosocial approaches is being assessed. While the superior efficacy of neuroleptic treatment for schizophrenia has in large part contributed to the demise of psychological approaches to schizophrenia, there is now growing recognition that pharmacotherapy alone is insufficient. Moreover, the therapeutic optimism engendered by the advent of novel antipsychotic medications provides new opportunities for "targeted" psychological interventions. It is, thus, perhaps paradoxical that the current wave of optimism for the pharmacotherapy of schizophrenia has also provided us with a renewed interest in psychotherapeutic and psychosocial interventions (Lieberman, 1994; Lamberti, Melburg & Madi, 1998). The optimum admixture and relative synergy between these modalities remains to be determined.

The Role Recovery Model is an emerging rehabilitative approach to the care of persons with severe mental illness (Anthony, 1990). This model has grown in ascendancy in recent years and is now a primary guiding philosophy in mental health service delivery. This approach is rooted in the personal attributes and abilities of individuals with mental illness, reframing the process of care around the individual's long-term expectations and lifetime aspirations (Deegan, 1988; Weingarten, 1994). This is a more "client-focused" and dynamic approach to service delivery, which requires a realignment and shift away from a prevailing medical model of care (Frese, 1998).

Therefore, given a relative paucity of effectiveness research on the impact of this recovery paradigm, it is timely that the implementation of the recovery initiative at Northcoast Behavioral Healthcare (NBH) is being studied.

Project Goals

The purpose of this study is to: 1) determine the clinical effectiveness and functional outcome of the implementation of the Recovery model through NBH across domains of: individual recovery experience and perceived therapeutic efficacy; functional and symptomatic improvement, and staff and organizational empowerment, and 2) evaluate the process of implementation of this recovery model.

Research Questions

This study addresses the following research questions:

- What has been the effect of the Recovery Project on patient functioning, well-being and quality of life, and use of services?
- For which patients/patient characteristics does the Recovery Project have a more positive impact?
- What are patient perceptions about the Recovery Project?
- How helpful does NBH staff think the Recovery Project has been for patients?
- How has the Recovery Project affected the clinical and rehabilitation staff at NBH?
- What organizational changes have occurred at NBH as a result of the implementation of the Recovery Project?

Study Design

The study period for this longitudinal research project is 24 months, May 1, 2000– April 30, 2002. Study subjects have been interviewed three times, once at baseline, and on two subsequent occasions spaced at six-month intervals, with a fourth and final wave of interviews to begin January 15, 2002. Interviews consist of a combination of quantitative and qualitative measures.

The study utilizes a quasi-experimental design in which all patients on four units receive the Recovery intervention, while a comparison group of patients on another unit receive NBH "treatment-as-usual." Consumer domains being investigated include: Symptoms/Functioning, Quality of Life, Vocational Attainment, and Empowerment.

Sample Selection

The Recovery model is being implemented in all but one unit at NBH. Patients residing on the remaining unit receive NBH "services as usual." All long-term residents (length of stay > 30 days) of the units receiving the Recovery intervention comprise the intervention group for the study and long-term residents from the remaining unit comprise the comparison group. Patient baseline measures yielded 59 participants in the treatment group and 19 participants in the comparison group.

NBH staff participating in the study consist of nurses, therapeutic patient workers, social workers, psychologists and psychiatrists providing daytime care on the residential units included in the study. Staff baseline measures yielded 43 participants in the treatment group and 10 participants in the comparison group.

Conceptual Framework

Patients participating in the Recovery Project are assessed for their readiness to choose and achieve a desired goal in the area of living, learning, working, socializing. Based on the readiness assessment and where the patient is in his/her recovery, relative to his/her desired goals, the patient falls under a status of engagement, readiness development, choosing, or achieving. NBH staff members have received training in administering readiness assessment, developing patients' long term views, coordinating service teams, and intervention in engagement, readiness development, choosing valued roles and achieving or keeping valued roles.

"Treatment-as-usual" involves the current mode of care delivery at NBH. This is treatment-plan focused, and while there is obviously input from the patient at treatment team meetings, the focus is more "medical" and "passive" than the Recovery model. It is hypothesized that the current treatment-as-usual approach is less "engaging" and "humanistic" than the proposed recovery approach.

Patient Outcomes and Measures

Five consumer domains are being examined: Symptoms/Functioning; Quality of Life, Vocational Attainment, Service Use and Empowerment.

- Symptomatic and Functional Outcomes are being assessed by NBH clinicians as part of NBH's clinical outcomes and PI measurements. Two key measures are the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962) and the Global Assessment of Functioning (GAF; Endicott et al., 1976). The BPRS is an 18-item instrument covering domains of psychopathology including positive symptoms, negative symptoms of schizophrenia, hostility and depression. The GAF is a global evaluation of patient outcomes encompassing symptoms, hospitalization or community status, risk to self or others and capacity to function independently.

- Quality of Life is being evaluated using a modified version of Lehman's Quality of Life Interview (Lehman, 1988). The Quality of Life Interview is a structured interview administered to the consumer in person by a trained interviewer in a one-on-one setting. It asks about the current objective and subjective quality of life of the consumer in eight different areas: living situation, family, social relations, leisure activities, work, finances, personal safety and legal problems, and physical health.

- Patients' Vocational Attainment assessments are based upon the graded programs (i.e., level of functioning) that the patient participates in through the NBH Rehabilitation Department. This department has begun using a Vocational Behavioral Scale that measures performance rating in the following domains: social skills, work habits, cooperativeness, work quality and personal presentation. The Rehabilitation staff is responsible for performing this evaluation on all patients.

- Service Use in terms of hospital status/length of stay is obtained from NBH Health Information Services (HIS).

- Empowerment assessment measures are twofold. The first assesses individual attitudes toward recovery and is designed for use with mental health professionals, family members and the general public, as well as with consumers themselves. Thus this type of measure facilitates comparison of the attitudes toward recovery of the patient participants in the research study and

the NBH staff attending them. The second type of measure is designed for use with patients only, and taps their perceptions of their own general empowerment and current recovery status.

Patients participating in the research study are administered the following as part of the data collection interview:

- The Making Decisions Empowerment Scale (Rogers et al., 1997) assesses personal empowerment in general (i.e., not specifically relating to recovery). It consists of 28 questions rated on a Likert-type scale ranging from "Strongly Disagree" to "Strongly Agree." The authors report very good reliability and validity for the measure, and it has been incorporated into the Ohio Mental Health Outcomes System Adult Consumer Form A instrument. The measure is comprised of five subscales: Self-Efficacy, Powerlessness, Community Autonomy (this subscale may not be appropriate for inpatients), Optimism and Anger.

- Selected items from the Recovery, Empowerment and Personhood section of the Peer-Support Outcomes Protocol Project (POPP; 1999, National Research and Training Center on Psychiatric Disability – Version 1, Draft 4) are being utilized. The four items selected from this section deal specifically with the consumer's perception of his/her current recovery status, and do not duplicate items in other measures being used.

In addition to the quantitative measures of patient outcomes, patients are also asked open-ended questions pertaining to their perceptions of the Recovery Project and its impact on them. The following areas are being explored: What do patients like best/least about the program? What do they find most/least helpful about the program? In what ways do patients think that the program helped them?

NBH staff are asked their opinions about how helpful they believe the Recovery Program has been for patients. The following areas are being explored: What positive/negative perceived changes have there been in patients as a result of the Recovery Project? For which groups or types of patients does the Recovery Project seem to work most/least effectively, and why?

Baseline Findings

Quantitative data are in the process of being analyzed. The findings presented here are based on patient and staff qualitative analyses only. The themes reported are those that have most frequently been endorsed by respondents. Responses reported have been sorted according to the following research questions:

1) What has been the effect of the Recovery Program on patient functioning, well-being, quality of life and use of services? (Respondents: Treatment Group Staff)

   - "It is empowering" (37%)
   - "It improves patient's quality of life" (30%)

2) For which patients/patient characteristics does the Recovery Program have a more positive impact? (Respondents: Treatment Group Staff)

- Recovery Model has a more positive effect on "those with a higher level of functioning and intelligence" because, for example, "… they have an understanding and want to change." (58%)
- Recovery Model has a less positive effect on "those with a lower level of functioning or particular diagnosis." For example "anti-socials (personality disorder) – they are off on their own agenda, very psychotic – they can't understand, and mentally retarded – they have a hard time grasping." (47%)

3) What are patient perceptions about the Recovery Program? (Respondents: Treatment and Comparison Group Patients and Staff). Although this research question pertains directly to the Recovery program, parallel questions were asked of Comparison Group patients and staff for purposes of comparing and contrasting the two treatment modalities.

Patients	Staff
Treatment Group "It is empowering" (61%) "It is about taking medication and being treatment compliant" (54%) "It helps prepare for discharge" (44%)	Treatment Group "It is empowering" (63%) "Improved patient-staff collaboration" (56%) "Patients think it is too demanding" (56%) "Increased hope and goals" (33%)
Comparison Group "Helps prepare them for discharge" (63%) "Is about taking medication and treatment compliance"(47%) "Improves patient-staff collaboration" (42%) "Is empowering" (42%) "It helps stabilize and improve symptoms (37%) "It increases staff support" (37%) "It involves going to groups" (32%) "It is disempowering" (32%)	Comparison Group "Learning techniques and going to groups"(60%) "Patients resistance to treatment" (60%) "Doing social and leisure activities" (40%) "Increases staff support" (30%) "Is about taking medication and treatment compliance"(30%) "It involves being able to work and earn privilege levels" (30%) "It is disempowering" (30%)

4) How helpful does NBH staff think the Recovery Program has been for patients? (Respondents: Treatment and Comparison Group Patients and Staff)

Patients	Staff
Treatment Group "It has helped improve behavior" (36%)	Treatment Group "It has helped improve awareness and understanding" (56%). "It has increased patient's hope and goals" (56%) "It has improved patient-staff collaboration" (47%) "It empowers patients" (37%) "It has improved patient-staff collaboration" (37%) "It has increased has increased their level of functioning and motivation" (30%)
Comparison Group "Symptoms have stabilized and improved" (26%)	Comparison Group "It has improved patient-staff collaboration" (60%) "It has improved patient-family collaboration" (40%) "New admissions, transfers and discharge provide interaction with others" (40%) "It prepares patients for discharge" (30%) "It has helped stabilize and improve symptoms" (30%)

5) How has the Recovery Program affected the clinical and rehabilitation staff at NBH? (Respondents: Treatment and Comparison Group Staff)

Treatment Group Staff	Comparison Group Staff:
"Improves patient care" (88%) "Improves patient-staff collaboration" (72%) "Helps staff empower patients" (54%) "Teaches staff to be more empathic with patients" (35%)	"Improves patient-staff collaboration" (80%) "Is all helpful" (70%) "Is empowering for staff" (70%) "Improves patient care" (40%)

Note. Both groups said "staff overload" is a result of the Recovery and Treatment Programs.

6) What organizational changes have occurred at NBH as a result of the implementation of the Recovery Program? (Respondents: Treatment and Comparison Group Staff)

Treatment Group Staff	Comparison Group Staff:
"It has increased staff overload" (47%) "It has increased patient empowerment" (40%) "It provides a greater structure and treatment" (37%) "It has improved patient care" (30%)	"It is empowering" (20%) "It has improved patient functioning" (10%) "There is no change – things are the same" (10%)

Summary and Conclusions

While the data reported here are only the qualitative data for Wave 1, it is clear that, at the time of the first interview, patients and staff alike viewed the Recovery Program as empowering of both patients and staff at NBH, and saw it as generally marking an improvement in patient care and treatment programming. At the same time, all staff were agreed that implementation of the Recovery Program has placed significant additional burdens upon their time and resources. Whether these findings hold throughout the entire two years of the study period, or are reflective only of "start-up" conditions, will be determined upon completion of all data analyses.

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RECOVERY TRAINING IMPLEMENTATION STUDY

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The Cuyahoga County Community Mental Health Board, Cleveland, Ohio, received a three-year grant from the Ohio Department of Mental Health (ODMH) to fund a "Recovery Systems Development Project." The overall goal of the project is to foster a system-wide paradigm shift on the part of all stakeholders to make Recovery concepts the foundation and operating philosophy in the provision of mental health services to adults with severe mental illness. Cuyahoga County Community Mental Health Research Institute received a three-year research grant to study the process and effectiveness of Recovery training. By comparing the oral and written narratives of consumers, using qualitative methods, investigators will examine how consumers and case mangers utilize Recovery practices.

Methods

This research design employs qualitative methods to measure training effects on consumers and practitioners. Case studies have been selected using purposive sampling and participants represent the range of ethnicity, age, diagnosis, and gender distribution among Cuyahoga County consumers. The unit of analysis in this study is the context of training implementation. Qualitative research is well suited for questions that examine systemic, open-end change that involves many actors in overlapping contexts: clinicians, administrators, consumers, family members, and community people. Qualitative methods can best capture the interpretative components of the proposed change by not privileging, a priori, any one point of view. Participant-observers will collect the oral narratives of consumers, case managers, and network members as they negotiate three consumer life domains: medication, money, and social manners. Participant-observation will take place in natural settings, where events and actions unfold in necessarily open systems, and where investigators will immerse themselves in the everyday, and make every effort to enter the practitioner and consumer worlds through regular interaction and observation. Investigators will pay particular attention to the ways that individuals--including the trainers, trainees, and consumers--experience, perceive, and assign meaning to Emerging Best Practices in Mental Health Recovery. Studies of case records will provide the written accounts of practitioner-consumer interactions. The written and oral narratives of the same practitioner-consumer action will be compared for contradiction and complementarity. The oral and written narratives will be analyzed for how Recovery language is used (or is not used) in consumer medication, money, and social manners life domains.

In a previous study of strengths case management, Floersch used participant-observation methods to capture case managers' perceptions, meanings, and experiences (Floersch, 2000 & 2002). In sum, the research technique for identifying the work of the Recovery model involves five related steps: (1) identify and describe the Recovery language in a training workshop, (2) record oral narratives of actual case management activities, (3) identify the written case notes that correspond to the oral narrative identified in step 2, (4) compare the oral and written narratives for the purpose of identifying Recovery, and (5) through interviews with case managers, confirm whether or not the language the researcher identified as Recovery is a language the case managers also acknowledge.

Preliminary Findings

This study has two data collection protocols. First, the principal investigator is shadowing case managers who work at five different mental health settings. Second, a research assistant is following consumers and constructing their networks.

Case Manager Research

Below, foreshadowing the kind of findings this study will produce, a case manager oral narrative is examined. The case manager is a master's level social worker with more than five years experience; the case manager had attended a two-day workshop introducing the Recovery model. The consumer is an elderly gentleman in his late 70s; he lives in a studio, subsidized (HUD) apartment complex and he too had attended a Recovery workshop sponsored by the Cuyahoga County Community Mental Health Board. The consumer's diagnosis is obsessive-compulsive personality disorder and he has been receiving services for approximately three years. In those three years, he has had three different case managers. The following is an excerpt from an oral narrative between the case manager and the consumer. In this case, the manager was implementing the Recovery Model for the first time.

> Case Manager: When you went through that program [the Recovery introduction workshop] they talked about nine areas of focus. [The case manager recites the list of nine essential domains.] As part of the process to recover, the idea of the program is that you will pick and rank the list. I would like to do this now. My question is how well do you remember these components? I don't want to snow you with too much literature. [The case manager hands the consumer the Recovery Goal Sheet to read.]

The case manager is referring to the following list of "nine essential components:" Clinical Care, Family Support, Peer Support & Relationships, Work/Meaningful Activity, Power & Control, Stigma, Community Involvement, Access to Resources, and Education.

> Consumer: I think Clinical Care is number one.
> Case Manager: Write that in the box. [The case manager is standing next to the consumer and points to the spot on the Recovery Goal sheet].

This interaction continued until the consumer had ranked all nine components; the total time to complete this section was about thirty minutes. The work continued:

> Case Manager: OK, so you would see Clinical Care as most important?
> Consumer: I think so.
> Case Manager: In terms of the status goal, you must rank these by ease of achievement. For both our sakes, let us review what Clinical Care is. [The case manager picks up the manual and reads from it.] Be patient because I am new at this. How do you do with Clinical Care now?
> Consumer: Good. I see my doctor, social worker, and I go to AA [Alcoholic Anonymous] meetings. Does AA count?
> Case Manager: Okay. You see, they [Ohio Department of Mental Health] have four status categories, so the question is where are you?
> Consumer: [He reads from the manual] Dependent/unaware, Dependent/aware, Independent/aware, and Interdependent/aware.
> Case Manager: [Reads the description of the interdependent/aware status] Does this sound like you?
> Consumer: Uh hm.

Case Manager: Yes, in terms of Clinical Care, I would see you as interpendent/aware. You have been aware for years that you have an alcohol and mental illness problem. You work with your psychiatrist and me. I would see you as interdependent/aware.
Consumer: Yes.
Case Manager: Where would you fall in the four categories in terms of Family Support?
Consumer: I have a long way to go. But in the last few weeks it has been improving with my family [Consumer is referring to his daughter.]
Case Manager: I would have to say that you fall in the upper two categories, let me read them to you.
Consumer: [nods in agreement.]
Case Manager: I think we are both in agreement that on these [Clinical Care and Family Support] issues you would be in the upper categories. My question is how urgent are these? Is it important to strengthen Family Support or Clinical Care?
Consumer: Family Support. I've got Clinical Care.
Case Manager: I think we could both agree that what you ranked number two [Family Support] should be number one. Clinical Care you do well.
Consumer: I think so.

The consumer and case manager discussion resulted in the consumer changing his mind about which essential component was the number one priority. In the written record that corresponded to the above narrative, one does not see the switch that occurred in the actual work of Recovery case management. Indeed, perhaps, this is one site of case management where the Recovery model will experience its own unique theory/practice swamp; that is, Donald Schön (1983) argues that where the "technical rationale" helping model meets the client's unique circumstances a theory/practice conundrum is inevitably experienced. About a particular essential life domain, when a consumer decides they are independent/aware but the practitioner feels they are dependent/aware, how do such opposing views get resolved? Or, how will Recovery practitioners respond to consumer perceptions about domain priorities that don't match practitioner assessments? Are there clinical skills that must be taught alongside Recovery and could these provide practitioners the methods to resolve Recovery's unique theory/practice conundrum(s)?

Network Study

Using participant-observation techniques, a researcher has followed four mental health consumers through various daily activities and community (social) interactions to identify the consumer's support network—both formal and informal. Specific attention has been paid to how and/or why an individual has been identified as a player in the consumer's support network (i.e., What criteria, if any, does the consumer employ to identify network members? What is the consumer's level of awareness regarding who comprises their network? Was the consumer able to construct their network independently, or with prompting, etc?). Network members that support consumer life domains (e.g., medication, money, and social manners) will be studied and compared to Recovery's four levels of consumer awareness.

The research consisted first of engaging the consumer in the research project. To assure engagement, the researcher co-participated in consumer daily and mental health (recovery) activities and events (appointments). For example, everyday activities included: (1) providing transportation to visit with family, friends, and practitioners (2) exploring job or school opportunities, and (3) facilitating shopping at a more desirable store. Examples of formal network contacts have included: case manager (CM), therapist (e.g., mental health and vocational training), psychiatrist, primary (medical) physician, nurse, dietitian, podiatrist, OB/GYN physician, community support worker (CSW), job coach/work supervisor, ACCESS (academic) counselor, probation officer, municipal court judge, and MRDD

community liaison specialist. Notably, consumers have identified very few friends or family members as part of their networks.

Consumer Network Case Study

In this case study the consumer is a thirty-seven year old Caucasian female. Her primary psychiatric diagnosis is schizophrenia, along with a secondary diagnosis of major depressive disorder. She has a past history of epileptic seizures (currently inactive), was diagnosed with Type II Diabetes in 1999, and currently is challenged by chronic obesity. Potential complications associated with the diabetes have resulted in additional daily self-care and monitoring activities by the consumer as well as her practitioners, including bimonthly podiatrist, monthly primary physician, and weekly registered dietitian appointments. The consumer is on multiple psychotropic medications (Haldol, Trazedone, Risperdal, and Zoloft) and in addition, she takes medications for seizures and diabetes.

The consumer (R) has been receiving services from a community mental health center (CMHC) for the past several years, during which time she has had three different case managers. At present, she has been without a designated case manager since early July (2001), but has been informed that a new case manager will be assigned (September 2001). R resides in a minimally supervised, multi-residential home on the near West Side of Cleveland. The residence is managed and staffed by a local supportive housing and employment agency that is well connected with other area community clinicians and mental health services. Residents are responsible for independently maintaining their own room, but in a weekly division of labor, they share cooking, cleaning and shopping duties.

Network Medication Monitoring

During participant-observation work with R, the researcher could see that the consumer was responsible and dependable (according to the prescribing physician's directions) in all aspects of obtaining, storing, and administering her daily (and monthly) medications. The only exception was her monthly Haldol injection, which required that she schedule an appointment with the clinic nurse to receive the injection. However, following the consumer's recent hospitalization for major depression, she has required the assistance of a visiting nurse on a weekly basis. The nurse assures proper utilization and dosages of medication by sorting into "med" boxes a week's supply of medication.

Practitioners within R's network, such as a primary physician, a podiatrist, a registered dietitian, and a psychiatrist have conducted the actual monitoring of her medications. In response to R's recent unusual behavior at work, R's work supervisor, for example, conferred with the psychiatrist; the supervisor was concerned whether or not R's medication regimen was being adequately followed. At R's next medication check up, the work supervisor's intervention caused the psychiatrist to pose specific questions:

> Psychiatrist: "Who at the [residential home] would know if you weren't taking your meds? Anyone?"
> R: " I don't know, maybe someone."
> Psychiatrist: "Would the home coordinator know or notice? [pause] Does she [lodge supervisor] still come out to your home?"
> R: "I think so, yeah, I see her sometimes."
> Psychiatrist: "How often do you see her?"
> R: "I don't know, just sometimes."
> Psychiatrist: "But you think she would notice if you were having trouble with your meds, or not taking them?"

R: "Yeah, I think she'd notice."

Because of our network research, we observed that the psychiatrist was not aware that R's typical network (e.g., lodge supervisor, lodge residents, case manager, and clinic nurse) had recently become sporadic in providing routine monitoring assistance. In conjoint visits with R and her practitioners, it was common to hear her podiatrist, primary physician, and dietician ask about her medications. However, R (following discharge from hospitalization) developed difficulty in tracking appointments and often didn't keep them because, as she said, "I don't feel like it." For example, R cancelled an appointment with her primary physician and three weeks later (even with significant encouragement from the researcher) she still had not scheduled a new appointment. The podiatrist routinely saw 'R' every twelve weeks and given that R had stopped attending regular dietitian appointments, R's medication assistance (through formal network monitoring) had significantly shrunk. Moreover, a primary network member at R's residential home had to significantly cut her hours and contact with R. Consequently, the psychiatrist was unaware of the change in R's network medication assistance and R was unable (or unaware) to inform the psychiatrist about the change.

Typical of how network members helped R monitor her medications, 'R's awareness of medication and its purpose was captured in the following conversation during her last visit with the primary physician:

Primary Physician: "How long since you got out of the hospital?"
R: "I can't really remember."
Primary Physician: "Are you taking any new meds since the hospital?"
R: "I don't really know. I think, can't remember names."
Primary Physician: "Are you still on Zoloft?"
R: "Yes."
Primary Physician: "Do you know why you take it?"
R: "No."
Primary Physician: "Do you know what it is?"
R: "No."
Primary Physician: "Why not?"
R: "They [doctors] didn't tell me."
Primary Physician: "Did you ask?"
R: "No. Didn't know I was supposed too."
Primary Physician: "Always ask. It's your job to keep us [doctors] on our toes; we make mistakes, too."
R: "Oh, OK."
Primary Physician: "I really need to know what all of your medications are, to make sure they won't interact negatively with your diabetes or other medications. Do you think you could write those down and drop them off for me later this week?"
R: "Yeah, I think I could do that."

Network Money Management

Participant-observations of R's shopping abilities suggested that R was quite good at calculating expenses and she was quite capable at purchasing the things she *wanted* and *needed*, while ensuring adequate funds for rent, food and other bills. However, early this year, R's spending habits and money management skills changed. For example, she purchased two cell phones in April of this year—one for her, and one for her father. It was not clear if R was responsible for paying both cell phone bills;

nevertheless, by the end of June, both phones had been turned off, pending payment of an outstanding $180 phone bill. When the researcher inquired about the bills, R became unusually vague, defensive, and requested that the subject be dropped. In May, R asked the researcher to help with a shopping trip to K-mart. R had said, "I have a new credit card I want to break it in." In less than an hour, R had spent between $200 and $300 dollars on clothing, household supplies, and cosmetics; in addition she spent $400 in the electronics department on a fax machine, a radio, several packages of batteries, and other miscellaneous supplies. She had two telephone lines installed in her room, one for a fax and one for a phone. We learned that she had purchased four vacuum cleaners through a mail order catalogue. Early in July, the researcher accompanied R to shop for Nintendo games, and in less than ten minutes, she spent $67. To the researcher's knowledge, no one in her residence (i.e., staff) discussed or supervised these spending sprees. However, in late July, the psychiatrist, during a routine medication check, unaware of the purchases, asked R about her finances:

Psychiatrist: "How are your finances? Are you in debt at all?"
R: "I just have some bills to pay off. Not really in debt."
Psychiatrist: " Do you have a credit card?
R: "Yes, two. When they expire, I'm looking for a new one in the mail."
Psychiatrist: "Do you owe a lot?
R: " I just have to pay some off each month."
Psychiatrist:" How much do you owe?"
R: "I don't want to get into that."
Psychiatrist: "Oh, is that a sensitive subject?"
R: "Yeah, I just don't want to tell you [how much I owe].

At present, R faces a financial crisis and as a result, for the first time, the residential home had to intervene with a bank-rent payment plan. Eviction was avoided.

In short, in both the medication and money life domains, R has had significant network assistance, but the preliminary data show that formal network members shared no practice model. Indeed, when R began failing, a shared model might have helped to organize network members. This kind of disjuncture between network members' awareness of each other's efforts and R's awareness of a need for help has been apparent in our other network studies. At this time, no network member has been trained in Recovery.

The last phase of the network research is aimed at organizing network members and providing group Recovery training; the purpose is to see how a trained network might affect consumer management of life domain tasks.

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MULTISYSTEMIC THERAPY FOR DOMESTICALLY VIOLENT JUVENILE OFFENDERS

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Multisystemic Therapy (MST), provides assessment and intervention targeted at the multiple systems in which juvenile offenders are involved. Because the best predictors of violent behavior among juveniles are involvement with deviant peers, lack of family monitoring and closeness, and lack of involvement in school, MST works primarily with the family, school and peer group to prevent recidivism. By offering services in the home, at school and in the community, MST has been shown to be the most successful intervention for reducing number of re-arrests, number of crimes committed, number of out of home placements of any kind (including commitment, residential placement or foster care) while costing less than other treatment, commitment or placement alternatives (Henggeler, Borduin, Schoenwald, Pickrel, Rowland, & Cunningham, 1998).

MST is similar to other family preservation approaches in its locus of service delivery but different in other respects. MST is theory-driven and research-based. Modifications in the delivery of clinical service have been made because of the results of ongoing research studies. MST is an individualized clinical service for which fidelity has been operationally established. It is therefore possible to know whether someone is delivering MST or not. Positive outcomes are associated with empirically demonstrated fidelity to the treatment model.

Recent reviews of psychotherapy research have concluded that MST is a specifiable intervention with demonstrated effectiveness in clinical trials (Kazdin, 1996). The APA's Task Force (Becker et al., 1995) report on effective treatments targeted at child abuse and neglect sequelae states that MST is one of the few therapeutic interventions shown to be effective in experimental studies. In randomized clinical trials, MST has been shown to decrease violent behavior exhibited by youth toward their families and to decrease aggressive behavior exhibited by mothers toward their adolescents (Henggeler, Rodick, Borduin, Hanson, Watson, & Urey, 1986). By contrast, a variety of court-funded mental health treatment approaches, including individual, family and group treatment, yielded increased violent parent-child interactions in the same study.

Brief Description of Multisystemic Therapy

Service Provision. Multisystemic Therapy (MST) using family preservation has been shown to be effective in addressing the needs of youth and families who come to the attention of the court. Many court-involved youth have co-occurring emotional and behavioral issues. MST is a specifiable intervention based on nine guiding clinical principles and rules that can be taught. MST can also be evaluated for effectiveness at the ongoing, process level.

Assessment. MST begins with a functional assessment of the youth in the context of all life domains. The goal of assessment is to understand the contextual fit of problem behaviors exhibited.

Overarching goals. When the fit of the observed behaviors and the systems in which the youth functions is understood, three or four overarching goals are established. The overarching goals are yardsticks by which to measure treatment progress. When all overarching goals have been met, therapy is

concluded. On average, it takes four to six months to accomplish overarching goals for most juvenile justice involved youth and may take longer for emotionally disturbed youth.

Family preservation. Most MST work is done in the home on family preservation issues. Strengthening parents' ability to monitor unruly youth and increasing family warmth is a primary goal of MST. By working with parents, MST seeks to disrupt the primary predictor of delinquent behavior--association with delinquent peers. When parents are empowered and feel hopeful about their ability to impact a youth's decision about peers and activities, real change can occur.

Case management. Services include meeting peers and helping arrange alternative peer activities as needed; helping parents coordinate school conferences, rehearsing positive conference skills and processing outcomes; serving as a liaison with school, court and other mental health providers, and arranging psychiatric consultation as needed for youth or parents.

History of the Project

In 1996, the Office of Criminal Justice Services (OCJS) funded an evaluation of MST (Multisystemic Therapy) compared with wraparound services for domestically violent juvenile offenders involved with the Cuyahoga County Juvenile Court. The design of the study was originally experimental but was redefined per the Court's process to be a treatment additive design comparing MST with the usual services provided to domestically violent juvenile offenders. Domestically violent juvenile offenders were selected as a target group because they accounted for about half of the referrals to the Detention Center. Detention Center overcrowding had been identified by an outside review panel as a key area of concern for the Cuyahoga County Juvenile Court.

In 1997, ODMH funded a companion study to follow up domestically violent youth six months after the completion of MST services. Also in 1997, the host agency for the OCJS grant defaulted on it.

In an attempt to continue the Court project, an MST program was developed at the Court, addressing, in part, the needs of domestically violent juvenile offenders. The Court declined to continue its participation in the research. Following a change in the Court leadership in 2000, the Court supplied descriptive retrospective information on outcomes of its MST program and the wraparound program that was originally proposed as the comparison group.

The Cuyahoga County Juvenile Court MST Program

The Cuyahoga County Juvenile Court has seen an increase in domestic violence filings in recent years, which contributes to a large census in the detention center. About half of the yearly census of the detention center is attributable to domestic violence offenses. In an effort to intervene effectively as well as to treat youth in the community, the court began MST and other treatment initiatives in July 1999.

A preliminary review of program information during the first year of operation indicates that 69 individuals completed MST. Seven therapists and a supervisor are assigned to the program full-time. Sixty-four percent of youth entering the program completed the program successfully, meaning that they are free from rearrest and living at home at the end of one year of program operation.

Hypotheses

It was hypothesized that youth receiving MST would commit fewer new offenses, have fewer rearrests, and have a higher rate of retention in the community than youth who received usual court program of intense wraparound services.

Research Design

The design of the study is a quasi-experimental trial of treatment modalities for domestically violent juvenile delinquents who come before the Cuyahoga County Juvenile Court. Using the Court's assignment procedure, treatment outcomes are compared for youth who receive MST and those who receive wraparound, an alternative treatment funded by the Court.

Data collected assess the degree to which therapists adhere to the MST treatment principles (which has been shown in federally-funded clinical trials to relate significantly to positive outcome); new filings and arrests for youth involved; family reports, and measures of youth functioning. Preliminary results suggest that adherence is moderate to low.

Methodology

The Court's data personnel pulled a total of 296 cases of youth enrolled in one of two court-funded treatment programs during calendar 2000. Demographic variables, including age, race, and sex of youth served by the MST and wraparound program, as well as court-related variables including current offense level, and prior commitment or placement history were requested. Determinations of success rate (rated subjectively by clinician at discharge) and recidivism (defined as committing a new offense during the study period) were made.

Findings

Demographics for the two groups are shown in Table 1. Termination and recidivism data are presented in Table 2. The breakdown of offenses was comparable with 37 percent of the MST youth and 40 percent of the wraparound youth having committed domestically violent offenses. Distributions of age, race and sex were comparable for the groups. Charges and offenses appeared comparable. Most of the youth had not been committed previously.

Table 1. Demographics for MST and Wraparound Youth

	Sex	Race	Age	Offense Level
MST	103 M 45 F	71 Black 71 White 5 Hispanic 1 Asian	Mode = 15 yrs.	Mode = M1
Wraparound	87 M 61 F	84 Black 57 White 5 Hispanic 2 Asian	Mode = 16 yrs.	Mode = M1

Table 2. Comparison of Court-involved MST and Wraparound Youth

	MST	Wraparound
Successful Termination	57% (75 of 132)	65% (96 of 148)
Recidivism	11% (7 of 93)	6% (4 of 67)

Determination of success was not defined specifically or comparably for the programs. Rate of success for the wraparound program appears to be higher and recidivism lower than for the MST program.

Given the changes in methodology, it is difficult to ascertain whether the findings are interpretable. In all probability, they are not. A consistent approach to data collection over the course of the study was not employed. Therefore, the only comparable findings come from the last run of data supplied by the Court. The bases for subject selection for this data run were not clarified. While the demographic variables are clear enough, the definition of the dependent variables employed in the tally were not agreed upon by the program managers, the Court's data personnel, and the researcher.

Therefore, conclusions drawn about the usefulness of either of the comparison programs are descriptive at best. It is not possible to address the initial hypotheses given the data supplied.

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SERVICE USE AND PREDICTORS OF EMOTIONAL DISTRESS OF PARENTS OF CHILDREN WITH SERIOUS EMOTIONAL DISORDERS

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Psychiatric disorders are estimated to affect approximately 7.5 million children and adolescents in this country (Friesen, 1993; Modrcin & Robison, 1991). Emotional and psychiatric disorders affect not just the identified patient, but the entire family system. Mental illness and serious emotional disorders are often very disruptive to family life. The stress of caring for an ill family member can place a strain on both the emotional and physical health of a caregiver (Biegel, Milligan, Putnam & Song, 1994; Biegel & Song, 1995; Friesen, 1996).

Both the theoretical and empirical literature on raising and parenting children and adolescents with emotional disorders point out that parents struggle with many issues related to caregiving for the child. The illness-related behaviors of the child are a major source of concern for parents. Dealing with these difficult behaviors is a source of stress for many parents.

Another illness characteristic that is a source of frustration for parents relates to the prolonged uncertainty about the child's illness. Families do not initially anticipate a non-normative event, such as the onset of symptoms of severe emotional disorder. Parents may believe that their child will "grow out of it" or that pharmacological treatment, or a change in school or peer group, will take care of the problem. They may experience disappointment and mourning when their child's problems persist into adolescence or become more serious (MacGregor, 1994; Modrcin & Robison, 1991).

Another major source of stress and frustration for parents of children and adolescents with serious emotional disorders is the perceived lack of both informal and formal support. Several studies document this perception (Koroloff & Friesen 1991; Tarico, Low, Trupin & Forsyth-Stephens, 1989).

Diverse aspects of service use and availability also impact a parent's perception of the caregiving situation. For instance, in a survey of close to 1000 parents of emotionally disturbed youth, a majority of parents reported difficulty in locating existing services and concern about a lack of services (Friesen & Huff, 1996). According to Friesen (1993), only half of all children who have mental or emotional disorders receive any services, and fewer receive services that adequately address their needs and those of their parents. Financial problems created by the high cost of care for a child with a serious emotional disorder are also a service-related concern for these parents (Beitchman, Inglis & Schachter, 1992; Friesen, 1996; Modrcin & Robison, 1991; Petr & Barney, 1993). In some states parents must relinquish custody to the local social service agency for their children to be eligible for intensive services that the parents cannot afford (Cohen, Harris, Gottlieb & Best, 1991).

Parents of children and adolescents with emotional disorders also struggle with negative personal feelings such as guilt and stigma (Dreier & Lewis, 1991; Friesen, 1996; Friesen & Huff, 1996; Grotevant,

Mcroy & Jenkins, 1988; Koroloff & Friesen, 1991; Petr & Barney, 1993). Extreme feelings of guilt, stigma, and loss can be indicative of depression (Hamilton, 1982; Klerman & Weissman, 1986), and the caregiving role has been empirically associated with depressive symptomatology (Pearlin, Aneshensel, Mullan & Whitlach, 1995; Song, Biegel, & Milligan, 1997).

Most studies of the service needs and barriers to service use faced by parents of children and adolescents with emotional disorders have utilized samples of parents who are identified within a mental health system (i.e., receiving services on an ongoing basis), or of parents who belong to support groups or advocacy organizations. These samples do not specifically include participants representative of people who do not use mental health services on a consistent basis, or families who may treat their child's "acting out" only through sporadic calls or visits to their local psychiatric emergency service system. These are families that may have "fallen through the cracks". They usually come to the attention of mental health service systems through crisis intervention. It is important to obtain from these families their perception about barriers to adequate and consistent contact with the mental health system.

Additionally, many children with emotional disorders who are involved with the mental health system are also involved with other community systems, such as the juvenile justice, social welfare, and educational systems. In order to best inform service providers about helping these families, it is essential to understand how involvement with other systems impacts the caregiving situation and the perceptions of the parent.

The adult caregiving research has produced and examined predictive models that identify the factors contributing to caregiver burden, and those aspects of caregiving perceived as extraordinarily challenging (Biegel et al., 1994; Biegel et al., 1991; Cook & Pickett, 1988; Lamb, 1982; Leff, 1983). By contrast, little attention has been paid to measuring parental perceptions of caregiving stresses and burdens resulting from child or adolescent psychiatric disorders (Angold, Messer, Stangl, Farmer, Costello, & Burks, 1998). Additionally, the research literature on parents of children with severe emotional disorders does not address differences in behaviors or service use that may be influenced by the gender, race or age of the child.

Finally, it is interesting to note the absence of the child's perspective in the growing literature on service use and the comprehensive mental health needs of families of children and adolescents with serious emotional disorders. In these studies "family" needs and perspectives often translate to those of the parents (Friesen, 1996; Friesen & Huff, 1996; Friesen, Griesbach, Jacobs, Katz-Leavy, & Olson, 1988; Friesen and Koroloff, 1990). Information from children on diverse aspects of service use provides a fuller understanding of the service use experience and barriers to service for these families (Farmer, Angold, Burns, & Costello, 1994).

In sum, therefore, more needs to be known about the different kinds of stressors that impact parent caregivers, and the differential effects that these stressors have upon the family. Barriers to service use must be more accurately identified; in particular, the barriers faced by those families who typically have had limited contact with the mental health system, despite an apparent need for services, must be explored. Finally, the input of the child and adolescent consumer is necessary if truly effective and responsive services focusing on the entire family unit are to be implemented. This study addresses these gaps in the knowledge base.

Conceptual Framework

The model used to guide the selection of variables and the development of research questions for the current study is a modification of a model adapted by Biegel, Sales, and Schulz (1991). The model posits that stressors, such as illness characteristics, impact perceived stress, which is operationalized as whether the caregiving situation is viewed as burdensome. The model also addresses how this perception of stress might be moderated by conditioning variables, such as formal and informal support and various aspects of service use. Finally, the model addresses how the perception of stress impacts a health outcome, caregiver depression, and how the impact on depression might also be moderated by support and service use.

Project Goals and Significance

This study had several goals:

1) to assess the extent and patterns of service use of children who use mental health services and their parents,

2) to assess opinions about services and barriers to service use of children and adolescents who use mental health services and their parents,

3) to assess the nature and extent of formal and informal social support of parents of children and adolescents who use mental health services,

4) to assess the nature and extent of caregiver burden and depressive symptomatology of parents of children and adolescents who use mental health services,

5) to assess predictors of caregiver burden and depressive symptomatology of parents of children and adolescents who use mental health services, and

6) to assess the effects, if any, of service use and social support in moderating the impact of stressors on burden, and burden on depressive symptomatology.

Research Questions

This study addressed the following research questions:

1) What are the illness characteristics of the children and adolescents in the sample?
2) What types and amounts of mental health services are used by child and adolescent consumers and their parents?
3) What opinions do these children and their parents have about the services received?
4) What are the barriers to accessing services for these children and their parents?
5) What is the level of multisystem involvement of these children and their parents?
6) What types of formal and informal support do parents of children and adolescents who use mental health services receive?
7) What is the level of parental satisfaction with the kind and amount of social support they receive?
8) What types and levels of burden are experienced by parents of children and adolescents who use mental health services?

9) What are the levels of depressive symptomatology experienced by parents of children and adolescents who use mental health services?
10) What are the correlates of caregiver burden of parents of children and adolescents who use mental health services?
11) What effects, if any, do service use and parent social supports have in moderating the impact of stressors on parental burden?
12) What are the correlates of caregiver depressive symptomatology?
13) What effects, if any, do service use and parent social supports have in moderating the impact of stressors on parental depressive symptomatology?

Methodology

The research study employed a cross-sectional survey design. The participants were parents of child and adolescent consumers of mental health services and the children themselves. All participants were interviewed individually and in person by trained staff. Child and adolescent consumers eligible for the study were between 8 and 17 years of age; had received a clinical service (e.g., crisis intervention, counseling, case management, etc.), and were not receiving residential treatment services. Parents eligible for the study were those who had legal custody of the child or adolescent meeting the above criteria. Subjects for this study were recruited from three services agencies serving diverse populations of children and adolescents. These three agencies were purposely selected because, together, their clients represent a broad and diverse cross-section of child and adolescent mental health consumers in Cuyahoga County. Two research protocols were developed for this project--one for parents and one for the child or adolescent. The interview protocol was comprised chiefly of extant measures of established reliability and validity. Parent interviews took approximately two hours to administer, with child and adolescent interviews averaging about one hour.

Findings

Description of the Sample. A total of 151 parents (63%) and 132 children (55%) completed usable interviews. Of the interviewed parents, 143 (95%) were female. Most (n = 139) were the biological mother of the child. Parents ranged in age from 26 to 64, with a mean age of 39 and a median of 38. Approximately equal numbers of parents identified themselves as Caucasian and African-American, 48 percent and 46 percent respectively. Most respondents (71%) reported a household income of less than $25,000, with 41 percent having incomes less than $14,000. Approximately two thirds of the parents (69%) had a high school diploma or less. Only seven percent of the parents were college graduates. Married respondents comprised the largest group in the sample (37%), with an additional seven percent reporting that they were living with a partner. For the remainder of the sample: 29 percent were single; 22 percent were divorced or separated; and five percent were widowed. About one fourth of the parents (29%) reported having received treatment in the past for a mental health problem. The most frequently reported reason for treatment was depression. Some parents (11%) reported having received treatment for a substance abuse problem.

Data on child demographic characteristics were obtained from both parent reports and child self-reports. Only the parent report data are cited below, since they include the 19 children who were not interviewed. Parents reported that approximately 60 percent of the children in the sample were male. The mean age of all children in the sample was 13. The sample was relatively evenly split between African-Americans and Caucasians, 47 percent and 44 percent, respectively. The remaining nine percent fell into other racial/ethnic categories. Parents were also asked the age at which their child first received mental health services. The age at first treatment ranged from one to 17, with a mean of nine years.

Research Questions. The study addressed three categories of research questions. First, it provided a description of the illness characteristics of the children and the services they utilized. Both the children themselves and their parents provided their perspectives on these issues. Second, parents described the supports they received, the burdens they experienced, and the depressive symptoms they felt. Finally, the study investigated the relationships among these factors.

A summary of the findings regarding each of the research questions is found below.

What are the illness characteristics of the children and adolescents in the sample?

- Mean scores on the CBCL fell in the clinical range on overall behavior problems (Total Score) and Externalizing symptoms, and in the borderline clinical range on Internalizing symptoms.

- Over three quarters (77%) of the children fell in the clinical range (71%) or the borderline clinical range (6%) on Total Score.

- Girls' T-scores for their self-ratings of Delinquent Behaviors and Externalizing Behaviors were significantly higher than the boys' self-ratings on these measures.

What types and amounts of mental health services are used by child and adolescent consumers and their parents?

- The most frequently utilized lifetime services were outpatient mental health, school services, and non-professional help.

- Services most often utilized in the prior three months were outpatient mental health, non-professional help, and school services.

What opinions do these children and their parents have about the services received?

- Almost all parents (99%) and children (89%) reported that seeking professional help for emotional or behavioral problems was definitely or probably appropriate in general.

- Almost all parents (99%) and children (85%) rated seeking professional help as definitely or probably appropriate in their particular case.

- About 70 percent of the parents and children reported favorable outcomes from outpatient services. About 80 percent would return to this service and recommend the provider to others.

- Favorable outcomes from inpatient services were reported by about half of the parents and 75 percent of the children. About two thirds would return to this service and recommend the provider to others.

- The overall mean on the Service Coordination Scale indicated that parents were "mostly" satisfied with the coordination of services when their child was being served by multiple systems.

What are the barriers to accessing services for these children and their parents?

- Parents most frequently reported lack of information, costs, prior negative experiences, and bureaucratic delays as barriers.

- Children most often reported self-consciousness, fear of out-of-home placement, and distrust of professionals.

What is the level of multisystem involvement of these children and their parents?

- The majority of parents (68%) reported that their child had received service from more than one sector in the prior three months.

What types of formal and informal support do parents of children and adolescents who use mental health services receive? What is the level of parental satisfaction with the kind and amount of social support they receive?

- Parents felt generally supported, having someone they can turn to for advice or help with a personal problem.

- Although formal support from individual professionals and agencies was seen as more helpful than informal support from family and friends, average ratings were only in the "sometimes helpful" to "generally helpful" range.

What types and levels of burden are experienced by parents of children and adolescents who use mental health services?

- Most parents reported worrying (87%), feeling depressed (70%), being tired (60%), and feeling incompetent (54%).

- The burden scores reported by these parents were comparable to those of parents in a previous study of severely emotionally children who were at risk for out of home placement.

What are the levels of depressive symptomatology experienced by parents of children and adolescents who use mental health services?

- The average total score on the CES-D was greater than the score that has been determined to indicate a clinical level of depression.

- One half of the parents scored in the clinical range for depression.

What are the correlates of caregiver burden of parents of children and adolescents who use mental health services?

- Greater levels of the child's externalized behavior problems were associated with higher levels of burden as perceived by parents.

What effects, if any, do service use and parent social supports have in moderating the impact of stressors on parental burden?

- Externalizing Behaviors were related to increased burden to a greater degree in instances of high formal support than in cases where less formal support was available. While it was expected that formal support would decrease the impact of stressors on burden, an alternative explanation could be that the high levels of burden experienced by parents as a result of these behaviors precipitated the high level of formal support.

What are the correlates of caregiver depressive symptomatology?

- Increases in internalized behavior problems were associated with increases in parental depressive symptomatology.
- A significant positive association was found between caregiver depression and caregiver burden.
- Restrictions on caregiver activities were positively associated with depressive symptomatology.
- The negative impact of the child's illness on caregiver well-being was positively associated with depressive symptomatology.

What effects, if any, do service use and parent social supports have in moderating the impact of parental burden on depressive symptomatology?

- Relative to increases in burden, depression increased at a greater rate for parents experiencing higher levels of service coordination than for parents experiencing lower levels of service coordination.
- Increases in the depressive symptoms of parents who were currently with a partner were less affected by the level of burden they experienced when compared to single parents.

Implications and Recommendations

- Continued access to outpatient mental health services for children and their families through a variety of settings that include the community mental health system, schools, and the juvenile justice system, should be a priority.
- The community mental health system should recognize and address the service needs of girls who exhibit "acting out" behaviors.
- The barriers to receipt of services reported by parents should be considered and addressed.
- Services should be designed and delivered in ways that minimize the stigma associated with the receipt of mental health services and which reduce the fears experienced by children.
- Although satisfaction with service coordination among different service sectors was quite high, sharing of case information is an area in need of continued improvement.

- The child mental health system should be more attuned and attentive to the role it plays in providing support to parents.

- The mental health system should provide for the mental health treatment needs of the parents of the children it serves.

- Mental health services for children should, whenever appropriate, address issues that are associated with parental burden.

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Webster, S. E., Biegel, D. E., Singer, M. I., Johnsen, J. A., MacMaster, S. A. (1998, March). *Service use and caregiving outcomes for parents of child consumers*. Poster session presented at the 11th Annual Research Conference of A System of Care for Children's Mental Health, Tampa, FL.

Webster, S. E., Biegel, D. E., Singer, M. I., Johnsen, J. A., MacMaster, S. A. (1997, October). *Service use and caregiving outcomes for parents of child consumers*. Poster session presented at the All-Ohio Institute on Community Psychiatry, Cleveland, OH.

THE MENTAL HEALTH NEEDS OF BIOLOGICAL MOTHERS OF FOSTER CHILDREN

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Biological parents of children in foster care have many problems, in addition to poor parenting skills. These problems include social isolation (Festinger, 1994), domestic violence, homelessness (American Humane Society, 1998), chemical dependency (Besinger, Garland, Litrownik, & Landsverk, 1999; Child Welfare League of America, 1998), and psychiatric difficulties. In addition, the majority of parents are unmarried mothers, who are poor and rely on public assistance (Courtney, 1994).

Empirical investigations, drawn from a variety of literatures, point to the likelihood that biological mothers of foster children have mental health problems. However, we lack direct empirical evidence on this point; we also lack evidence as to the mental health and other services that mothers need. Such knowledge is critical to development and enhancement of mental health and other services for this population. In addition, we lack information regarding the distribution or the impact of a range of psychiatric problems on mothers' employment status. This limitation is particularly important to a study of biological mothers of foster children who may have a wider range of psychiatric problems than the samples of mothers who have been studied.

Current research focuses on the prevalence or impact of selected psychiatric disorders on employment status (or receipt of welfare). This knowledge is important, but it is critical also to examine the impact of psychiatric problems on mothers' abilities to meet their families' needs. This is of particular concern due to the prevailing U. S. social welfare policy (P. L. 104-193) that limits the time families can receive cash assistance and requires work in exchange for such aid. As a result, biological mothers of children in foster care are at high risk of having no income from work and, ultimately, at high risk of losing custody of their children to the state.

Research Questions and Hypotheses

This investigation begins to study these issues. It is part of a larger study of the impact of welfare reform on the child welfare system. The current investigation addresses several questions and hypotheses: the research questions focus on the extent and type of psychiatric symptoms among biological mothers of children in foster care and mothers' use of mental health and other services; the hypotheses focus on the impact of mothers' psychiatric symptoms on mothers' work status and, for those who work, on the adequacy of mothers' income from wages to meet their families needs. The study research questions and hypotheses are as follows.

Psychiatric Symptoms

Question 1: What proportion of mothers fall into the clinical range of symptomatology for each of nine symptom (including depressive) domains?

Question 2: What is the pattern of co-occurrence among nine symptom domains?

Hypothesis 1: After controlling for factors associated with obstacles to employment, global severity of psychiatric symptoms will be associated with a lower probability of work by mothers.

Hypothesis 2: After controlling for factors associated with obstacles to employment, severity of depressive symptoms will be associated with a lower probability of work by mothers

Hypothesis 3: After controlling for factors associated with obstacles to employment, global severity of psychiatric symptoms will be associated negatively with level of income relative to need.

Hypothesis 4: After controlling for factors associated with obstacles to employment, severity of depressive symptoms will be associated negatively with level of income relative to need.

Use of Mental Health and Other Services

Question 3: What mental health and chemical dependency services have mothers used?

Question 4: What problems do mothers report with respect to meeting expectations of service providers (mental health, child welfare, welfare, chemical dependency), while their children are in placement?

Question 5: What reasons do mothers report for not using the mental health and chemical dependency services they desire?

Methodology

Study Design and Sample. Study questions and research hypotheses are being examined using a cross-sectional design. A sample of 178 single biological mothers with at least one child who was placed in foster care for the first time between October 1, 2000 and March 31, 2001 has been interviewed. In order to have been included in the sample, a mother must have been at least 18 years of age and speak English. Foster care was considered to be any placement in family foster care, kinship care, group care or hospital care.

Data Sources and Study Variables. Data for the study come from structured interviews containing a preponderance of closed-ended questions. Subjects were interviewed within five months of the placement of their child(ren) in foster care. Interviews were conducted individually, with each interview lasting approximately one hour.

Wherever possible, constructs were assessed through the use of standardized measures of proven reliability and validity. Many measures were incorporated from other studies of populations sharing many of the characteristics of the current sample, i.e., women on welfare. Constructs measured include: employment, adequacy of employment income and obstacles to employment (psychiatric symptomatology, symptom domains, human capital limitations, substance dependence and physical health limitation); use of services; and socio-demographic factors.

Data Analysis. Research Question 1 will be examined with descriptive statistics. The Brief Symptom Inventory (BSI: Derogatis, 1992) Global Severity Index score will be used to assess severity of psychiatric symptoms and the BSI clinical cut-off score will be used to define cases falling into the clinical range. The BSI Symptom Dimension scores will be used to assess each of the nine domains of psychopathology, including depression. Scores that fall into the 50th percentile (or above) for the inpatient sample will be considered scores falling into the clinical range for that domain. Research question 2 will be examined by plotting a 9 x 9 matrix representing all possible single and binary combinations of symptom dimensions. Only symptom dimension scores in the clinical range will be plotted. The percentages of subjects in each cell will be calculated to determine co-occurrence among the nine symptom domains. Research hypotheses that contain a dichotomous dependent variable (i.e., employed versus unemployed) will be tested with a logistic regression analysis. Research hypotheses that contain a continuous dependent variable (i.e., level of adequacy of employment income) will be tested with a multiple regression analysis. In these analyses, the same eight independent variables as noted above will be employed. A power analysis was conducted using SamplePower® v. 1.02. Using Cohen's conventions for effect size (Cohen, 1992), an R^2 of .13, representing a medium effect size for multiple regression, was selected. For a sample size of 200 cases, with the α value set at .05, and positing an R^2 of .13, power is .99. An R^2 of only .08 would suffice to yield power of .85, well above the standard (.80) for sufficient power. Research Question 3 will be examined by calculating the distribution of types of services mothers have used in the past 12 months and the distribution of types of services mothers are currently using. Research Question 4 will be examined by completion of a content analysis of mothers' responses to an open-ended question regarding problems they have meeting expectations of service providers. Research Question 5 will be examined by reviewing the distribution of reasons mothers report for not using the mental health and chemical dependency services they desire. This question will also be examined through the conduct of a content analysis of mothers' responses to an open-ended question regarding why they have not used the services they desire.

Significance of the Research

This study addresses significant gaps in the knowledge base about a vulnerable population of women: single mothers of children in foster care. As has been shown, these women manifest the vulnerabilities of a number of identifiable populations--i.e., single mothers, women on welfare, individuals with serious mental illness--in a unique configuration, the dynamics of which have yet to be explored. Furthermore, the vulnerabilities of these women may translate directly into increased vulnerability of their children in foster care, including risk of permanent loss of custody of their children through adoption or long-term placement in foster care. Knowledge gained from this study should facilitate a much more comprehensive and coherent assessment of the needs of this population, so that mental health and child welfare policies and services can be structured to better meet those needs.

This study is particularly timely, given the welfare reform policies that have recently been enacted and are likely to affect a sizable proportion of this population. In particular, knowledge gained about the impact of psychiatric symptomatology on the employment status of those mothers expected to transition from welfare to work may have significant policy implications. Should psychiatric symptomatology prove to be a significant predictor of unemployment among this subgroup, a review of welfare policies and services would also be warranted.

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CSP WORKERS AND FAMILY CAREGIVERS: FACILITATORS AND BARRIERS TO SATISFACTORY INTERACTION

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Family caregivers of the severely and persistently mentally ill are in a position to critically affect the outcomes of their ill relatives; in fact, the literature has begun to characterize families as representing the "informal system of care," a valuable partner to the "formal" or professional system of care in place in the community mental health system (Tessler & Gamache, 1999). The weight of caregivers' responsibilities, conceptualized as caregiver burden, has been widely documented in the literature (Biegel, Song, & Milligan, 1995; Hatfield, 1979; Lefley, 1996; Marsh, 1992) and factors contributing to caregiver burden have been investigated (Biegel, Sales, & Schulz, 1991; Song, Biegel, & Milligan, 1997). Because caregiver burden diminishes the capacity of families to support their ill relatives, threatening the viability of consumers' fragile social networks and this informal care system, factors contributing to caregiver well-being and distress must be more fully understood.

Of these factors, the quality of relationships between mental health providers and family caregivers has been identified as salient. Caregiver satisfaction with services and support provided by mental health professionals has been shown to be an important component of family-provider collaboration and caregiver well-being (DeChillo, 1993; Lefley, 1996) and conversely, caregivers' perceptions that mental health providers are not helpful and/or supportive have been shown to be an important predictor of higher levels of caregiver distress (Biegel et al., 1994). Although the collaborative nature of these relationships has shown some improvement over time (Tessler & Gamache, 1999; Marsh, 1992; Tessler, Gamache, & Fisher, 1991), "a significant minority of family caregivers continue to be dissatisfied with their contacts with mental health professionals" (Biegel et al., 1995) and for some caregivers, levels of satisfaction have decreased in recent years. (Tessler & Gamache, 1999).

In previous studies designed to address this dissatisfaction and resultant burden, data have come primarily from family caregivers, with much less input from mental health professionals about their perceptions of relationships with family caregivers. Additionally, although the literature shows that there is some agreement around systemic barriers to interaction, caregivers' and providers' views of obstacles to optimum relationships tend to occupy different domains; some research which has assessed the agreement between family and provider perceptions found a lack of congruence (DeChillo, 1993). Documented discrepancies between caregivers' and providers' perceptions indicate that despite the number of studies pertaining to caregiver-provider relationships, and the shift toward intensified advocacy for collaboration in the literature, many gaps in our knowledge remain.

This study addresses a number of those gaps, namely: 1) although caregivers typically interact with a range of professionals in a variety of settings and at critically different phases of illness, the literature is often unclear about the nature of caregivers' interactions with specific professions and the relevance of their satisfaction/dissatisfaction to these specific relationships; 2) the literature does not indicate the actual

extent to which mental health professionals interact with family members; 3) only very sparse data exist pertaining to professionals' views of their relationships with caregivers; 4) the factors which distinguish each profession's interactions with family caregivers have not been presented as specific to each profession; 5) the prevalence of factors repeatedly cited by caregivers as critical, such as providers' beliefs in family culpability, has not been adequately explored, and 6) the relationship of salient factors to levels of provider-caregiver involvement is not understood.

The first phase of this study examined the interactions between one type of professional--Community Support Program (CSP) workers, formerly known as case managers--and family caregivers, from the point of view of the workers. It was the purpose of this phase of the project to look at CSP workers' type and frequency of interaction with family caregivers, their level of satisfaction with the amount of interaction, their perception of caregivers' satisfaction with the amount of interaction, their attitudes about involvement with family members, their perceptions of barriers and facilitators to satisfactory interaction, and their beliefs about mental illness etiology. A second phase of the study elicited responses from family caregivers around their satisfaction with their level of interaction with CSP workers and their perceptions of barriers to those interactions.

Research Questions and Hypotheses

This study addresses the following research questions and hypotheses:

Research Question #1: What do CSP workers believe to be the causes of mental illness?

Research Question #2: To what extent are CSP workers involved with family caregivers around consumers' treatment planning and management and caregivers' needs?

Research Question #3: How satisfied are CSP workers with their level of involvement with family caregivers around consumers' treatment planning and management and caregivers' needs?

Research Question #4: How satisfied do CSP workers perceive families to be with the level of involvement between CSP workers and family caregivers around consumers' treatment planning and management and caregivers' needs?

Research Question #5: To what extent are family caregivers satisfied with their level of involvement with CSP workers?

Research Question #6: What are CSP workers' attitudes about involvement with family caregivers around consumers' treatment planning and management and around caregivers' needs?

Research Question #7: What are family caregivers' perceptions of CSP workers' attitudes about their involvement with family caregivers?

Research Question #8**:** What factors do CSP workers identify as facilitators and barriers to their involvement with family caregivers?

Research Question #9**:** What factors do family caregivers identify as facilitators and barriers to their interaction with CSP workers?

Research Question #10: What is the relationship of views held by CSP workers about interaction with family caregivers to views held by family caregivers about those interactions?

Research Question #11: What is the relationship of CSP workers' beliefs about the etiology of mental illness to their level of involvement with family caregivers around consumers' treatment planning and management and around caregivers' needs?

> **H[1]** CSP workers who subscribe to a psychogenic theory of mental illness etiology are more likely to report involvement with family caregivers around consumers' treatment planning and management than around issues of caregiver needs.

> **H[2]** CSP workers who subscribe to a psychogenic theory of mental illness etiology will report a lower level of involvement with family caregivers around consumers' treatment planning and management and around caregivers' needs than will those who do not.

Research Question #12: What is the relationship of CSP workers' beliefs about the etiology of mental illness to their attitudes about involvement with family caregivers around consumers' treatment planning and management and around caregivers' needs?

> **H[3]** CSP workers who subscribe to a psychogenic theory of mental illness etiology will report more negative attitudes about involvement with family caregivers around consumers' treatment planning and management and around caregivers' needs than will those who do not.

Research Question #13: What is the relationship of CSP workers' beliefs about the etiology of mental illness to their level of satisfaction with their level of involvement with family caregivers around consumers' treatment planning and management and around caregivers' needs?

> **H[4]** CSP workers who subscribe to a psychogenic theory of mental illness etiology are likely to be satisfied with less involvement with family caregivers around consumer treatment planning and management and around caregivers needs than those CSP workers who do not.

Research Question #14: What is the relationship of CSP workers' beliefs about the etiology of mental illness to their perception of caregivers' satisfaction with the level of involvement between CSP workers and family caregivers around consumers' treatment and management issues and caregivers' needs?

> **H[5]** CSP workers who subscribe to a psychogenic theory of mental illness etiology are more likely to perceive family caregivers as less satisfied with their involvement around consumer treatment planning and management and caregivers' needs than those CSP workers who do not.

Research Question #15: What is the relationship of CSP workers' beliefs about the etiology of mental illness to their perceptions of barriers to their involvement with family caregivers?

> **H[6]** CSP workers who subscribe to a psychogenic theory of mental illness etiology are more likely to identify familial factors as barriers to their involvement with family caregivers than are those who do not.

Methodology

The study incorporated a combination of quantitative and qualitative methods and utilized two distinct samples in two phases:

- In Phase I of the study a cross-sectional design was utilized in which 167 CSP workers serving adults at 14 agencies in the Cuyahoga County community mental health system were surveyed. Subjects responded to questions pertaining to their beliefs about mental illness etiology, the frequency of their interactions with family caregivers, their own and perceived caregiver satisfaction with that level of interaction, perceived facilitators and barriers to interaction with family caregivers, and their job background, including education, training, licensure, and CSP experience. CSP workers were recruited from the total pool of workers serving adults with severe and persistent mental illness in the county system and were interviewed at a pre-arranged time by telephone, using a standardized questionnaire developed by the investigators for the study. Quantitative survey responses were analyzed using a combination of bivariate and multivariate statistical procedures, including least squares multiple regression. Open-ended responses were subjected to a thematic content analysis by two independent readers.

- In Phase II of the study, 18 family caregivers participated in one of two focus group interviews facilitated by the principal investigator. Caregivers were recruited via CSP worker nominations as well as from NAMI support groups in Cuyahoga County. Subjects' views were elicited around selected themes relevant to study research questions, specifically, their satisfaction with their interactions with CSP workers and their perceptions of salient facilitators and barriers to that interaction. Subjects were asked to provide demographic and other background information including the number of years they had spent in the caregiving role, the nature and duration of their family member's illness, and whether or not they were or had been members of support groups for family members of the severely mentally ill. Transcripts of the focus group proceedings were subjected to a thematic content analysis utilizing two independent readers.

Findings

Frequency of CSP Worker/Family Interaction. The study broke new ground in examining the level of interaction across types of contact, e.g., collaborative and supportive, as well as presenting a specific type of practitioner point of view about current experience. The data showed that these CSP workers conceptualized their collaborative and supportive interactions with caregivers as fairly infrequent and spent, on average, only one to two hours per week, total, with all of the family members of all of their clients (the most common caseload size being 50).

CSP Workers' and Caregivers' Satisfaction with Frequency of Interaction. With regard to satisfaction with frequency of interaction from the viewpoints of CSP workers and family caregivers, the findings showed the same lack of congruence identified in previous studies. CSP workers were moderately satisfied with their levels of interaction and perceived the family caregivers to be only slightly less satisfied than they themselves were. Higher levels of frequency of interaction were associated with increases in CSP worker and perceived caregiver satisfaction. Caregivers, on the other hand, were openly dissatisfied with the amount of interaction that they had with CSP workers and although they were loathe to blame their current CSP workers for a perceived lack of attention, they did not hesitate to blame previous workers. In addition, they were likely to find issues outside of the relationship with the current CSP worker, such as heavy caseloads, lack of sufficient housing, and confidentiality regulations, to blame for dissatisfaction with their interactions. Moreover, caregivers were more likely to feel neglected,

excluded, or blamed by other mental health professionals, principally psychiatrists, and, in fact, saw CSP workers as saviors of a sort. An important contribution of this study is its ability to pinpoint the target of caregivers' concerns, rather than generalize these views to mental health practitioners as a group, as had been done in most previous studies.

CSP Workers' Attitudes about Interaction with Family Caregivers. Although previous research had identified a range of attitudes among mental health professionals concerning interaction with families, the overwhelming majority of CSP workers surveyed in the current study held positive attitudes toward collaborating with caregivers around consumer treatment and management issues as well as being supportive of the caregivers' own needs. As a group, they were in agreement about caregivers' right to information and inclusion as collaborative partners, and acknowledged the weight of caregivers' responsibilities and the implications for their own well-being. They most often viewed caregivers as vital sources of support for their ill relatives, and somewhat less often, for the workers, as well.

The juxtaposition of these attitudes with their moderately infrequent interaction and general satisfaction with that interaction is somewhat puzzling, however. The CSP workers' overwhelming agreement with caregivers' entitlement to be included as partners in care as well as the importance of their contribution to their clients' support would suggest that, given the infrequency of their interaction with caregivers, CSP workers would be largely dissatisfied and perceive caregivers to be quite dissatisfied, as well. One explanation is that CSP workers, as a group, perceived their level of interaction to be adequate. If so, this raises the question of whether CSP workers were well informed about the potential benefits to consumers of collaboration with families, the extent of caregivers' burden and needs, and the caregiver perspective, in general.

An alternative hypothesis is that CSP workers perceived that agreement with the positive attitude items was socially desirable, whereas their responses on the frequency and satisfaction with frequency of interaction items were less clearly tied to what they perceived to be the "correct" response. An additional hypothesis is that while family caregivers were viewed as important, CSP workers may not have considered it as within their professional role to either partner with or support family members at any greater level than they were already doing so.

Themes emerging from the study's qualitative data suggest a richer dynamic around these variables than previously discovered. While CSP workers professed a positive orientation toward both collaborating with and supporting family members (attitudes about interaction), their behaviors (frequency of interaction) and conceptualization of those behaviors (satisfaction) suggest that they did not see collaboration and support as salient in the consumer's treatment. Unlike the family caregivers who, as a group, acknowledged that without CSP workers their connection to the mental health system and its services to their relative would be weakened, the CSP workers did not, as a group, acknowledge a pivotal role for family members on which the workers could and would rely.

Perceived Barriers to CSP Workers' Interaction with Family Caregivers. CSP workers' Barrier Scale scores indicated a leaning, on average, toward seeing families as promoting satisfactory relationships. Nevertheless, the majority of the workers pointed to "problem" families when asked to identify, in their own words, what they saw as the biggest barriers to those relationships. Overall, views of families ranged from positive (e.g., involved, knowledgeable, and well functioning) to negative (e.g., detached or controlling, ignorant, and dysfunctional). CSP workers tended to view families with more positive characteristics as important facilitators of satisfactory interaction but two-thirds of the CSP workers characterized families with more negative characteristics as significant barriers.

Again corroborating previous findings, the CSP workers were most likely to see agency issues such as heavy caseloads, scarcity of resources such as housing, and confidentiality laws as impeding their access to and interchange with family members. As in an earlier study (Biegel et al., 1997), CSP workers did not view their own lack of professional knowledge or training as an obstacle to providing service to consumers and families. Further, professional strengths, such as the ability to engage with caregivers and convey empathy, were what the facilitators cited most often when CSP workers were asked to identify what helped them most in their involvement with families.

Not surprisingly, caregivers' responses were somewhat a mirror image of those held by professionals, as they had been in previous studies. As a group, caregivers perceived themselves as the primary, if not indispensable facilitators of interaction with the CSP workers and/or the mental health system and thereby their ill relative's access to services. Only one caregiver participant identified family factors as a barrier to interaction. As has been documented previously, family caregivers and CSP workers did agree in terms of blaming case overload, scarce resources, and confidentiality laws for low levels of interaction, and family caregivers tended to excuse their CSP workers' inaccessibility as related to those factors. This study's caregiver participants expressed gratitude for the efforts of effective CSP workers. They acknowledged professionals' limitations, such as lack of knowledge about families' cultural diversity, as potential barriers, but were quick to suggest that the workers, themselves, could not be blamed for what they had not had the opportunity to learn.

The nature of these findings suggests that, in terms of the views of CSP workers and caregivers about barriers to interaction, while the areas of salience converge, the weighting of their importance is fundamentally different. The current study's inclusion of qualitative methods promoted access to a rich level of detail about both CSP workers' and family caregivers' views that had heretofore been unexplored.

CSP Workers' Etiology Beliefs. The study findings suggest that outdated beliefs about mental illness etiology, specifically, beliefs in psychogenic or family causation, were prevalent among these CSP workers. While the vast majority (88%) were in agreement with statements asserting biological causes, more than 55 percent of the CSP worker sample saw families as the cause of their relative's illness, a remarkable number. Moreover, the findings indicated that a striking 47 percent had overlapping beliefs, having endorsed statements to the effect that mental illness has primarily biological causes as well as statements asserting that family dynamics are the cause of severe mental illness.

The data further showed that differences in level of education, between Bachelor's and Master's degree level, had no effect on whether CSP workers held biological causation or family causation beliefs of mental illness etiology, or both. Similarly, age, years of experience in the mental health system, and type and timing of education had no relationship to beliefs.

Relationship of CSP Workers' Etiology Beliefs to: Frequency of Interaction, Attitudes about Interaction, and Perceived Barriers to Interaction with Family Caregivers. As hypothesized, the data showed that CSP workers holding beliefs in family causation of mental illness were more likely to characterize aspects of families as barriers to satisfactory interaction. Beyond that relationship, however, etiology beliefs did not predict CSP worker attitudes, frequency of collaboration and satisfaction with interaction, or other views of barriers to interaction. Despite the prevalence of outdated beliefs in family causation among the sample, in fact, attitudes toward families, in general, were positive, suggesting that blaming families and seeing them as valuable collaborative resources may not, in the views of CSP workers, be mutually exclusive constructs. And a number of factors, including ubiquitous case overload and scarce community resources might explain the fairly low level of CSP worker interaction, overall, with family caregivers, despite their overwhelmingly positive orientation toward collaborating with and

supporting them. It is also possible that the family causation beliefs are internalized by workers but not expressed in terms of the opinions, attitudes, and behaviors that were measured in this study; the caregiver literature suggests that family blaming by mental health professionals is often covert. On the other hand, the focus group participants denied feeling blamed by their CSP workers, although they reported having experienced blame coming from psychiatrists.

It is premature to conclude from the findings that what CSP workers believe about family and/or biological causation of mental illness is irrelevant to professional attitudes and behaviors. What the study findings do clearly show is that measuring opinions and beliefs about the causes of mental illness and the roles that families should or should not play in their ill relative's treatment taps into complex constructs that demand further investigation.

CSP Worker Training around Working with Families. An important new variable--continuing education training--emerged from the study findings and was shown to be associated with several outcomes. Those CSP workers who had received some kind of family training, via attendance at a conference or participation in a seminar or workshop: 1) had more positive attitudes about collaborating with and supporting caregivers, 2) supported caregivers more frequently; 3) saw caregivers as more satisfied with their collaborative interactions; and 4) were more likely to view their own professional expertise and strengths as facilitating satisfactory interaction with caregivers, than were those workers who had not benefited from such training.

These findings beg the question of why continuing education was more effective than academic coursework. Hypotheses include: 1) attendees at seminars, workshops, etc., have the benefit of being grounded in the workplace and can relate new knowledge in real time to existing clients; 2) participation of family members in continuing education for CSP workers to present their perspective promotes familiarity and thereby comfort between professionals and caregivers; 3) a feeling of competence and confidence fostered by having received hands-on training in working with families prompted some CSP workers to view interactions with families more positively and their own efforts to engage and work with families as more likely to succeed; 4) workers who chose to attend conferences, seminars, or workshops which address interaction with families were already favorably predisposed toward caregivers and were seeking further insight and expertise.

Recommendations for Service Delivery and Policy

1) Mental Health Boards and agencies should ensure that CSP workers are oriented to and receive continuing education regarding working with family caregivers.

2) Curricula for students of social work, psychology, sociology, and nursing, who most often fill CSP positions, should include content on persons with severe and persistent mental illness and their families.

3) Curricula for students of social work, psychology, sociology, and nursing should guard against disseminating outdated theories of mental illness etiology.

4) Mental health authorities should work toward eliminating systemic barriers to effective caregiver-CSP worker collaboration.

5) Mental Health Boards and agencies should ensure that CSP workers are trained to view family caregivers and consumers as partners in treatment and ultimately in the recovery process.

Recommendations for Future Research

1) More effective measures for measuring etiology belief constructs should be developed.

2) The nature of interactions between family caregivers and other mental health practitioners should be investigated.

3) The nature of CSP workers' interactions with the family caregivers of children with serious emotional disorders should be investigated.

4) The effect of gender on the nature of interactions between CSP workers and family caregivers should be further investigated.

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Paper Presentations of the Research to Date

Wieder, B. (2001, October). *CSP workers and family caregivers: Facilitators and barriers to satisfactory interaction*. Paper presented at the Dissemination Briefing of the Cuyahoga County Community Mental Health Board, Cleveland, OH.

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Wieder, B. (2001, October). *CSP workers and family caregivers: Facilitators and barriers to satisfactory interaction*. Paper presented at the American Public Health Association 129th Annual Meeting and Exposition, Atlanta, GA.

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Wieder, B. (2000, February). *CSP workers and family caregivers: Facilitators and barriers to satisfactory interaction.* Preliminary results presented at the Post-Doctoral Research Fellows Seminar at the 10th Annual Conference on State Mental Health Agency Services Research, Program Evaluation and Policy of the National Association of State Mental Health Program Directors' Research Institute, Washington, DC.

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FROM TREATMENT TO PARTNERSHIP: A QUALITATIVE STUDY OF SERVICE PLANNING FOR RECOVERY FROM SEVERE MENTAL ILLNESS

Columbiana Mental Health and Recovery Services Board

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Relatively few qualitative research studies have focused on personal recovery from severe and persistent mental illness (Boone, 1998; Young & Ensing, 1999). Some have explored the experiences of consumers and families (Kondrat, Winbush, & Greene, 1998; Stein, 1998), the functioning of parents with serious mental disorders (Sands, 1995), the perceptions of adult "in-patients" in a psychiatric hospital (Goodwin-Guy, Newnes, & Waltho, 1999), and the delivery of services in three case management programs (Schmidt-Posner & Jerrell, 1998). One study (Powell, Single, & Lloyd, 1996) used focus groups as a qualitative instrument to compare the perceptions of mental health service users with the views of providers in two communities in England.

The current study is exploring and documenting the experiences of consumers and professional service providers in the complex, and difficult, transition from conventional psychiatric "treatment" planning to "consumer-driven" planning for recovery from severe mental illness in a rural community mental health system in Ohio. While consumers in Columbiana County can identify individual practitioners who promote recovery in their own ways, consumers do not feel that they are in control of their treatment, services, or their lives. In their relationships with providers, consumers say that they often feel subordinate, misunderstood, judged, mistreated, and at times victimized:

> Currently, psychiatrists and case managers are the professionals who have the most frequent contact with local consumers. Some consumers have no case manager, as they rely more on a therapist for their professional support. Consumers…agreed that focusing on the service planning relationship with these professionals would be key to influencing many other treatment related activities. Moving service planning toward a "recovery planning" model would be symbolic of the desired shift in relationships of consumers with the "professionals" in our system. It would indicate that consumers have the power and control of their mental health recovery and the course of their lives. (Baumgarner & Chaffee, 1999, p. 7).

The perceptions of professional service providers and adult consumers with a classification as "severely mentally disabled" are being documented and evaluated in order to determine whether or not the current process of "treatment" planning promotes or obstructs a consumer's "recovery" from severe mental illness in any way.

A Qualitative Study

The following research questions represent the boundaries of the qualitative research:

Consumers

1. How does a consumer perceive his or her mental illness?
2. What does a consumer believe about the possibility of recovery from his or her mental illness?
3. How does a consumer perceive his or her relationship with a provider?

4. How does a consumer perceive the process of treatment planning with a provider?
    A. What is the purpose of treatment planning?
    B. How does a consumer participate in treatment planning?
    C. What goals are developed in a treatment plan?
    D. How do consumers use treatment plans?
    E. What are the barriers or problems in treatment planning with a provider?
5. To what extent is a consumer integrated in the community?
    A. How dependent is the consumer in the community?
    B. How independent is the consumer in the community?
    C. How interdependent is the consumer in the community?
6. What does a consumer need in order to recover from his or her mental illness?

Providers

1. How does a provider perceive the mental illness of a consumer?
2. What does a provider believe about the possibility of a consumer's recovery from his or her mental illness?
3. How does a provider perceive his or relationship with a consumer?
4. How does a provider perceive the process of treatment planning with a consumer?
    A. What is the purpose of treatment planning?
    B. How does a provider participate in treatment planning?
    C. What goals are developed in a treatment plan?
    D. How do providers use treatment plans?
    E. What are the barriers or problems in treatment planning with consumers?
5. To what extent is a consumer integrated in the community?
    A. How dependent is a consumer in the community?
    B. How independent is a consumer in the community?
    C. How interdependent is a consumer in the community?
6. What does a consumer need in order to recover from his or her mental illness?

A qualitative research design, triangulated with two quantitative instruments, the Working Alliance Inventory (Horvath, 1981; Horvath & Greenberg, 1987; Ralph & Clary, 1992) and the Making Decisions scale (Rogers, Chamberlin, Ellison, & Crean, 1994), is being used to evaluate the process and to document the outcomes of the Mental Health Recovery Systems Development Grant in Columbiana County. An Initial Study (FY 00-01) is exploring each of the qualitative research questions in order to reveal the perspectives and experiences of consumers and providers in the current "system" of care, support, and service delivery in Columbiana County. Semi-structured qualitative interviews are being completed with a sample of 30-35 consumers, 14 case managers, 10 therapists, two supervisors, and one psychiatrist employed by the Columbiana Counseling Center. A Final Study (FY 01-02) will be initiated during the last year of the Recovery Systems Development Grant, at which time the same sample of consumers and providers will be interviewed in order to measure any qualitative changes that have occurred, over time, as a result of strategic project activities.

Two quantitative instruments are being used to gather additional data in the evaluation of the Recovery Systems Development Grant. The Working Alliance Inventory (Horvath, 1981; Horvath & Greenberg, 1987; Ralph & Cleary, 1992) and the Making Decisions scale (Rogers et al., 1994) are being used on a pre-test (FY 00-01) and post-test (FY 01-02) basis to measure (a) differences and changes in perceptions of the helping relationship, between consumer and provider, and (b) changes in a consumer's

sense of "empowerment," as a result of his or her involvement in the activities of the Recovery Systems Development Grant, as well as participation and experience in the qualitative research.

The sample of consumers is being carefully constructed over time in order to avoid what Miles and Huberman (1984) warn could be a "fieldworker's tendency to rely too much on articulate, insightful, attractive, and intellectually responsive informants," leading to an "overweighting" of data gathered from such subjects. In this respect, the Principal Investigator is interviewing consumers who are easily contacted and willing, if not eager, to participate in the Project, as well as consumers who are relatively socially isolated, distrustful, and disengaged from active or frequent interaction with case managers, therapists, or both. The "voices" of these individuals, however "disengaged" or muted by severe illness, must be heard and balanced against the perceptions of bright, articulate, cooperative consumers, if a representative qualitative sample is to be constructed. Finally, one consumer, at least, who is involved in a helping relationship with each case manager and therapist, has been included in the sample in order to (a) study the nature of the helping relationship between a consumer and each adult service provider and to (b) compare respective perceptions of the consumer's mental illness, his or her progress in "recovery," the nature and process of "treatment" planning, and the extent of a consumer's "integration" in the community.

The Principal Investigator is using a hermeneutic approach to data analysis (Palmer, 1969; Rabinow & Sullivan, 1979, 1987; Shapiro & Sica, 1984; Packer, 1985; Polkinghorne, 1988). The construction of a theme through hermeneutic inquiry is based upon the discovery of a high degree of intersubjective "agreement" among consumers and providers, respectively, with regard to certain aspects or dimensions of their experiences, especially their involvement in the process of treatment and recovery planning. In short, interpretation of audio tape recordings and transcripts of interviews is revealing inter-related as well as conceptually distinct themes, or categories of meaning, that are "embedded" in consumer and provider perceptions.

In summary, qualitative interviews are being conducted to evaluate the conversion of psychiatric "treatment" plans from "professional management tools" to recovery plans that are developed, directed, and controlled by consumers, in collaboration with case managers, therapists, supervisors, psychiatrists and family members. Toward this end, and through triangulation with two quantitative instruments, problems and barriers in service planning for recovery have been identified as practical targets for education, training, or specific changes in practice or policy through the strategic activities of the Recovery Systems Development Grant. A number of preliminary themes have emerged, which are discussed below.

Adaptation

Significant themes are emerging in the qualitative interviews with the sample of consumers, one of which is related to the role and importance of a person's awareness or insight into his or her mental illness, which varies among individuals (Amador et. al., 1993). Indeed, the process of gaining insight into, identifying, and understanding the symptoms, causes, effects of medication, and social consequences of mental illness is neither predictable nor linear. Consumers who evidence a high degree of awareness of their mental illness, however defined and understood, tend to demonstrate the most stability in functioning, independence, and progress toward their personal goals. Those who evidence a low degree of awareness tend to demonstrate more instability in functioning, dependence, and either less progress toward their life goals or satisfaction with their current life circumstances, or both.

Cognitive processes (Davidson & Strauss, 1992) that are believed to be foundational for recovery--self-discovery, taking stock of oneself, initiative, and the capacity to appeal to an essential "core" or sense of self in order to "live with" and survive recurrent or severe symptoms of mental illness--tend to vary among the subjects. Again, "movement" along this "path" is neither predictable nor linear. As Davidson and Strauss (1992) emphasize,

> While these four aspects have been separated for ease of presentation and comprehension, that does not suggest that a person may only be involved in any one issue at a time, or that people move in an orderly progression from the first aspect to the second, and then on to the third and fourth in a clear-cut, linear fashion. These four aspects rather are related and overlapping, and are perhaps interactive in nature as well (p. 134).

Clearly, some consumers can grasp the effect of the illness on their lives. They are able to set goals for themselves and assess their strengths and weaknesses, including the barriers to their goals, and can demonstrate some degree of initiative in working toward those ends, often without the support of a spouse or members of their immediate family. These consumers have become progressively able to "manage" their illness, especially recurrent symptoms, by "separating" the illness from their sense of self and by "finding" a "place" for the illness within the routine conduct of their lives. In short, they appear to be able to "manage" or "live with" their mental illness, despite episodic or recurrent periods of increased, even severe, symptoms, and are relatively independent or interdependent in the community, i.e., have achieved the highest degree of integration in the mainstream of the community.

In this respect, all of the individuals, regardless of the degree of awareness of their mental illness, have given accounts of "stages" that are consistent with Taylor's (1983) theory of cognitive adaptation:

> When an individual has experienced a personally threatening event, the readjustment process focuses around three themes: a search for meaning in the experience, an attempt to regain mastery over the event in particular and over one's life more generally, and an effort to enhance one's self-esteem--to feel good about oneself again despite the personal setback (p. 1161).

A consumer's sudden or life-long experience of mental illness seems to provoke "coping strategies" or adaptations--however inappropriate or "successful"--that are similar, if not identical, to those of cancer patients, and others, who face "life-threatening events." Or, as Hatfield and Lefley (1993) observe,

> Recovery is not a process of gradual and continual improvement over time. Rather,…adaptation and readaptation go on all the time and…things are not always what they seem. What appears to be a setback may turn out to be adaptive in the long run" (pp. 133-134).

Resilience

What is consistent and compelling are spontaneous accounts of how each person coped with, "got through," or survived physical and sexual abuse, unrelenting disappointments, pervasive losses, sometimes interminable anguish, and overwhelming problems--often beginning in childhood--that contributed to, or resulted from, their experience of severe mental illness. Whether or not a person can face, endure, or truly "recover" from the effects and consequences of mental illness, including the secondary effects of experiences "in the system" and in the community, seems to turn on the nature and extent of an individual's psychological resilience. Subjects who appear stable, independent, and able to progress toward their goals seem to demonstrate the capacities, characteristics, and tendencies of children

who "bend," but never "break," in the face of adversities or traumatic life experiences (Garmezy, 1991). Indeed, the majority of the subjects in the qualitative sample had characteristics of these children:

> Functional adequacy (the maintenance of competent functioning despite an interfering emotionality) is a benchmark of resilient behavior under stress. While resilient adults can be identified as adults who once experienced a great deal of despair as children, I am not prepared to mark off the construct of resilience because such people may carry with them a realistic baggage of sadness and unhappiness… Perhaps a portion of resilient behavior is the evaluative awareness of a difficult reality combined with a commitment to struggle, to conquer the obstacle, and to achieve one's goals despite the negative circumstances to which one has been exposed, which were and remain evocative of sadness (Garmezy, 1991, p. 466).

Accordingly, how a person reaches for and achieves relative stability, independence, and progress toward their goals--however fleeting--in the face of severe or cyclical symptoms of mental illness, as well as what was, or continues to be, sustaining of these individuals, is being documented and explored.

Being There

The poverty, isolation, fears, and loneliness of consumers appears to be abated--partially, and sometimes wholly--by a meaningful helping relationship with a case manager, therapist, or both. Unquestionably, the lives of most of these consumers are troubled and obscure, marked by fragility, vulnerability, and marginality, and brightened only by a "home visit" by a case manager or the temporary experience of security and "connection" in a therapy session with a "supportive" counselor. As Ann Weick (2000) has emphasized:

> Social work does its good deeds out of sight. Except for those occasional moments when errors in judgment or questionable practice bring public blame, most social workers go about their daily tasks of tending, mending, gathering, and strengthening without public praise or notice (p. 395).

Those who suffer, and the comparative few who try to help them in Columbiana County, will find a "voice" in, and through, this study. Equally important, what is most meaningful in these relationships or how a consumer is helped in his or her recovery by the quality of his or her "connectedness" (Jordan, 1992) with a case manager, therapist, or both, is being documented and explored.

Treatment Is Not Enough

Formal "treatment planning" is more often than not of little importance and consequence in service provision. Most individuals in the study do not understand "treatment planning" or its purpose. None of the consumers have a copy of their "treatment plan," nor do they ever think about their plan, or refer to it, unless prompted by a case manager or therapist to discuss it--or "do one"--on some unpredictable or periodic basis. Most individuals believe that "treatment planning" is just "paperwork" that must be completed and placed in their case record at the agency. "Treatment plans" are completed by a case manager or therapist--never a psychiatrist--with little or no knowledge, input, or participation by a consumer, other than some seemingly obligatory discussion of various "goals" that an individual should be considering or pursuing--about which both consumer and provider can usually agree.

Some individuals in the study do not know much, if anything, about the role of "treatment plans" in the context of service delivery by a provider or the agency. Many subjects cannot recall their experience in "treatment planning" with a provider. For a few consumers, "treatment plans" are to be

avoided: the development of a "treatment plan" risks the possibility of "getting better," an increase in provider expectations, more personal responsibility, and independence, i.e., the loss of government benefits and the sense of security so derived. For one individual, "treatment planning" is ominous: could it portend a pronouncement by a case manager or therapist that services are "no longer needed" and therefore will be withdrawn?

For a significant number of consumers with the clearest and strongest desire for recovery, "treatment planning" does not provide the guidance, clarity, or "blue-print" of how to proceed and achieve stability, independence, or progress toward their goals. Without exception, these consumers agree with the perception (of others) that services centered on their basic needs are essential, supportive, and often critical in helping them to achieve and maintain stability, independence, and the capacity to live somewhere in the community. However, what these consumers want and need from their providers, in order to recover from mental illness, tends to transcend the structure and content of their "treatment plans," and the planning process itself.

While "treatment planning" may serve to identify, develop, or organize the provision of services by the agency, the planning process itself is perceived as (a) sometimes unrelated to, disassociated with, or "out-of-tune" with the nature and extent of what is actually provided to consumers on a daily basis and/or (b) not inclusive of all providers who are involved in the service delivery or "treatment" process, especially psychiatrists. For this reason, a consumer can be profoundly encouraged and supported in his or her recovery by a case manager or therapist who "says one thing"--sets typical "treatment goals" and completes a standard "treatment plan"--but "does another"--provides emotional support or counseling that is centered on a consumer's perception of what she needs, wants, and is striving to achieve in her recovery.

Partnership

The inadequacies, limitations, and occasional irrelevance of a "treatment plan"--and the planning process, itself--are of little consequence, as long as consumers with a strong desire for recovery have a case manager, therapist, or peer who inspires hope, at best, and shares a person's vision of his or her journey. The ideal seems to be achieved when a consumer perceives and believes that a "treatment plan" reflects this shared vision, as a foundation for goal-setting that is squarely centered on a consumer's needs, desires, strengths, and vulnerabilities in recovery--not just "treatment." Indeed, it is the partnership between consumers and providers, as well as between consumers and one or more peers--what Judith Jordan (1992) has called the "quality" of their "connectedness"--that appears to be more important to recovery from mental illness than the construction of a "treatment plan," however adequate, or the process underpinning it.

Belonging

Consumers who evidence a high degree of awareness of their mental illness, effective "coping strategies," i.e., cognitive adaptation and resilience, tend to be independent or interdependent in the community. They actively participate in community social activities, develop personal relationships with people in community organizations, find and use activities and resources; and, in most instances, "reach-out" and involve themselves with others in need or who are recovering from mental illness. It appears that many of these subjects have achieved independence in the face of severe or recurrent symptoms of mental illness, without any recognition or support of their efforts by spouses and other family members, but with the encouragement, guidance, and support of a case manager, therapist, or peer.

Consumers who evidence a low degree of awareness of their mental illness, ineffective "coping strategies," i.e., poor or limited cognitive adaptation, and marked vulnerability, tend to be dependent in the community. Many of them report feeling alone, isolated, and "separate" from the community, as a whole. Some report anxiety in social situations and distrust of people in the community. As a result, they are reluctant to participate in community social activities and will avoid them, even if they are aware of opportunities and wish to be more involved. However, a significant number of other individuals are unaware of different activities, organizations, and people in the community, including other individuals who have mental illness. They report little or no interest or desire in becoming involved in the community.

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EXAMINING THE VALUE OF THE JOB CHARACTERISTICS MODEL FOR IMPROVING THE EXPERIENCE OF WORK AND WORK–RELATED OUTCOMES FOR ADULTS WITH SEVERE AND PERSISTENT MENTAL ILLNESS

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Most experts agree that current employment rates for adults with severe and persistent mental illness (SPMI) reflect neither the potential nor the desire of these individuals to work. Numerous barriers are recognized as contributing to this situation (e.g., stigma, structure of benefits systems, etc.) and efforts are underway at the federal, state and local levels to reduce these cultural and system-level obstacles.

While mental health system leaders tackle the complex problems of reducing cultural and structural barriers to work for adults with SPMI, other domains must contribute expertise on the many issues related to work for this population. Job design is an extensively studied approach used by Industrial/Organizational (I/O) psychologists to optimize job structure in order to satisfy both individual worker and employer interests. The current research is designed to customize job design knowledge and technology to the population of adults with severe and persistent mental illness.

Research Goals

The major goal of this research is to evaluate the extent to which the Job Characteristics Model (JCM) (Hackman & Oldham, 1976), a motivation-based approach to job design, can be used to understand and improve the experience of work for members or identifiable subgroups of the population of adults with SPMI. The JCM, in a modified form, is expected to be useful for understanding how job design can improve desired work outcomes for adults with SPMI and for their employing organizations.

The Job Characteristics Model

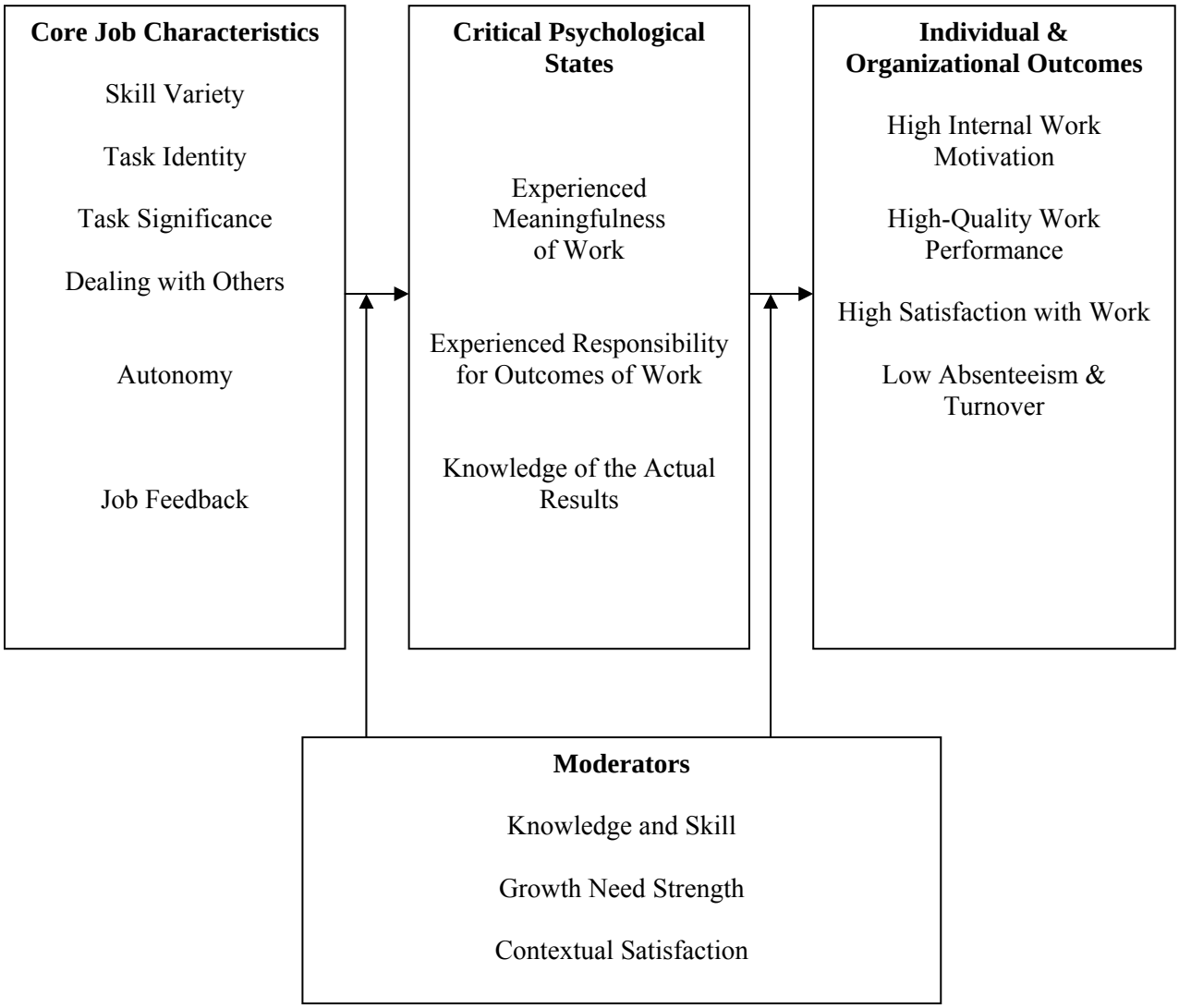
The JCM (see Figure 1) explains how perceived characteristics of jobs (see below) are related to outcomes that are important to individual workers and to their employers. Desired outcomes in the JCM include high levels of internal motivation, quality performance and job satisfaction, and low absenteeism and turnover. Job characteristics include:

- Skill variety: the range of personal competencies required to perform the job.
- Task identity: the degree to which the entire job is done by a single person.
- Task significance: the extent to which the job has an impact on the lives of other persons within or outside the organization.
- Autonomy: the extent to which one has freedom, discretion, and independence in scheduling one's work and determining how to performs the job.
- Job feedback: the extent to which the worker gets information about the quality of his/her performance from the job itself, from coworkers, from customers, etc.

Perceived job characteristics are expected to impact outcomes through their impact on workers' "critical psychological states" including 1) how meaningful the job is, 2) the extent to which the worker feels responsible for the work produced, and 3) how well the worker believes s/he is performing the job.

The JCM also identifies a number of factors that are expected to moderate linkages in the model including: 1) knowledge and skill to perform the job, 2) the extent to which one is motivated to learn, grow or develop on the job (i.e., growth need strength [GNS]; Alderfer, 1985) and the worker's level of satisfaction with contextual factors in the workplace.

Figure 1. The Job Characteristics Model (Hackman & Oldham, 1976).



Empirical Support for the JCM

The JCM has generated a great deal of research. Extensive results suggest that jobs high on the core job characteristics produce higher motivation, satisfaction, and performance outcomes in employees. For example, support for the model's utility can be found in a comprehensive analysis of over 75 research studies that supported many of the proposed relationships among the model's variables (Fried & Ferris, 1986). An additional meta-analysis of research on the Job Descriptive Survey (JDS), the instrument used to test the JCM, (Loher, Noe, Moeller, & Fitzgerald, 1985) found that the best estimate of the correlation

between core job characteristics and job satisfaction is .39 ($p < .05$) and that employees high in GNS have the most positive outcomes when their jobs are perceived to be high on the core job characteristics in the JCM.

However, empirical findings also suggest that the model warrants further investigation. For example, the factor structure of the job dimensions in the JCM has been found to vary, in some cases, by job population and educational level of incumbent. Finally, there is growing recognition that the utility of the model needs to be evaluated with regard to distinct populations of working adults.

Research Hypotheses

This research is guided by a number of overarching hypotheses: 1) The JCM or a modified version of the JCM will generalize to the population of working adults with severe and persistent mental illness, and 2) Variables in the JCM or a modified version of the JCM will suggest intervention and implementation strategies for improving "matches" between jobs and persons who are currently employed. There are numerous specific hypotheses that will be tested within these two broad hypotheses.

Research Sites

The research is being formally conducted in four research sites. Within each site, the research team works primarily with one agency. The research sites include Franklin County (The Center of Vocational Alternatives, COVA); Montgomery County (Eastco, Inc.); Portage County (the Kevin Coleman Center and Community Counseling Services, Inc.); and Lucas County (Network, Inc., a division of the Zepf Center).

Project Phases

The project is occurring in four phases over a five-year period. The major goals and updates detailing progress (Phases I & II) toward these goals are outlined below.

Phase I: Job Taxonomy Development Phase (year 1 and year 2) goals are to identify needed modifications to the JCM, to develop measures and data gathering approaches for testing the JCM, and to develop a preliminary JCM-based taxonomy for members or subgroups of the target population.

The progress in Phase I has been as follows:

- Expansion of the JCM for the SPMI population following extensive qualitative data gathered via interviews and focus groups involving major stakeholder groups (consumers, mental health professionals, and vocational rehabilitation professionals).
- Development of the Job Profile Questionnaire (JPQ), based upon instruments that tap JCM constructs. Items were written to be consistent with a third-grade reading level.
- JPQ versions were developed for consumers currently working (JPQ–Current), and consumers who had recently worked, in which the focal job is the last job held within the past six months (JPQ – Last). A single JPQ version was developed for staff as a companion to the consumer versions for current and last jobs.

Phase II: Pilot-planning Phase (year 2) goals are to continue with the instrument development process and to negotiate with research sites. During this phase, Subject Matter Experts recommended

additional versions of the JPQ to accommodate important populations that were not initially included in the research.

The progress in Phase II has been as follows:

- The psychometric properties of the JPQ were investigated. This included the pilot-testing of the JPQ in the SPMI population. Internal consistency of scales and co-variation of model linkages were examined.
- A validation study was conducted and analyzed, using the JPQ and the JDS. Scale reliabilities and inter-scale correlations between the two instruments were calculated.
- These investigations provided overall support for the psychometric properties of the JPQ and informed revisions to the instrument. Items were added to key scales and some problematic (e.g., reverse-coded) items were reworded.
- The JPQ was also expanded to include numerous constructs identified in the qualitative research as important to the SPMI population. Additions to the model are shown in Table 1.
- The revised JPQ was pilot-tested and re-analyzed for psychometric properties.
- Individual JPQ feedback reports were developed to increase utility and to provide participants with the greatest possible benefits for participating in the study.
- A pilot test was conducted for the Service Provider Version of the JPQ at the National Association of Case Management Conference. This version was created primarily for use in training case management and vocational rehabilitation staff in how to a) administer the JPQ and b) interpret and discuss JPQ results with consumers.
- A JPQ Preview Version was constructed for consumers who have never worked, or have not worked within the past six months. The addition of this version allows data to be collected during the entry phase of the consumer to vocational programming. Items were rewritten to apply to individuals with no or limited work history. The companion Staff Version was also created for the Preview Version.
- Numerous field experts requested variations of the three versions of the JPQ for use with the population of economically disadvantaged adults (e.g., welfare clients). Subject matter experts expect that a noteworthy proportion of this population suffers from an undiagnosed but significant mental illness. All versions of the JPQ were revised for this population by eliminating items that blatantly refer to mental health issues. Two multi-item scales were added including the ODMH Outcomes System's Symptom Distress Scale (ODMH, 2000) and a Coping Scale designed to reflect the Mental Health Confidence Questionnaire.
- Pilot testing of the JPQ Preview v\Version for both the SPMI and economically challenged populations occurred in Lucas County. Preliminary analyses suggest that the majority of scales possess adequate internal consistency. Analyses will continue as additional cases are received.
- Table 2 shows a complete listing of the eleven JPQ versions and forms. Note that on any given form of the JPQ, only those constructs are represented that make sense for that population. If a construct did not make sense for a particular population, that scale was dropped for that version or form.
- An alternative to paper-based JPQ data collection and feedback is in the process of development. Software will enable computer administration of the JPQ. This enhancement increases the feasibility of use of the JPQ by eliminating third-party data entry and by providing immediate feedback to the consumer and mental health or vocational rehabilitation staff.

Phase III: Taxonomy Testing Phase (years 3 & 4) goals are to gather data from the experimental research sites and to test the major research hypotheses. The progress to date in Phase III has been that JPQ software for the Preview version has been installed and training has occurred at two sites and

scheduled for a third. Data are being collected and transferred to a central database.

Phase IV: Dissemination Phase (year 5) goals are to disseminate findings from the formal research study, to describe the nature and potential uses of "products" produced during the course of the research, and to provide continuing education credits for staff education and training seminars.

Table 1. Additions to the Job Characteristics Model for This Research

Additions to the Job Characteristics Model for the Population of Adults with SPMI				
Job Characteristics	**Psychological States**	**Cognitive & Affective Outcomes**	**Behavioral Outcomes**	**Moderators**
Task Significance – Self	Emotional Dissonance	Satisfaction - Relatedness & Existence	Withdrawal Behavior (from hard data): ▪ Lateness ▪ Absenteeism ▪ Intent to Quit	Worker: ▪ Identity as a Worker ▪ Cluster (Synthesis, Inc. framework) ▪ Work Experience ▪ Recovery Level ▪ Empowerment ▪ Symptom Awareness–outside work ▪ Ownership of job choice ▪ Ownership of career choice ▪ Skill & ability match
Feedback from Agents – Coworkers	Symptom Management Effort	Satisfaction with Job Characteristics	Physical Health/Mental Health	Need Strength: ▪ Relatedness ▪ Existence
Emotional Labor	Strain	Commitment to Supervisor	Cost of Rehabilitation (hard data)	Work: ▪ General motivation to work ▪ Cognitive work frame ▪ Affective work frame ▪ Support for working from others ▪ Benefits loss as barrier
		Self Efficacy Career Maturity ▪ About work ▪ About self as worker		Job: ▪ Content Satisfactions • Flexible scheduling • Flexible workload • Coworker support • Advancement • Physical environment • Noise ▪ Symptom awareness on the job ▪ Decision to disclose ▪ Commitment of Supervisor to employee ▪

Table 2. The Eleven Versions of the JPQ

JPQ Version	Mental Health Consumers (M)	Staff Version (M)	Economically Disadvantaged Adults (N)	Staff Version (N)
Preview	Adults with SPMI who have never worked or who have not worked within last six months	Staff Preview Form (M)	Economically challenged adults who have never worked or who have not worked within last six months.	Staff Preview Form (N)
Current	Adults with SPMI who are currently working or involved in a community-based assessment	Staff Current/Last Form (M)	Economically challenged adults who are currently working or involved in a community-based assessment.	Staff Current/Last Form (N)
Last	Adults with SPMI who are not currently working, but have worked within the past six months.	Staff Current/Last Form (M)	Economically challenged adults who are not currently working, but have worked within the past six months.	Staff Current/Last Form (N)
Service Provider Version	N/A	N/A	N/A	N/A

Expected Value of the Research

In the design or structuring of jobs, experts recognize that there are distinct populations of workers for whom special consideration needs to be given. Over two decades ago, McCormick (1979) identified those with disabilities of varying types and the elderly (p. 301) as two broad groups that need to be considered with regard to job design.

Today, experts in the field of psychosocial rehabilitation recognize that job restructuring may be needed in order to reduce the barriers to work for members of the population of adults with SPMI (e.g., Mancuso, 1990). The JCM is a widely used and studied approach to job design which addresses the relationships between the perceived structure of jobs and important workplace outcomes. Even so, literature reviews confirmed by a recent communication with Richard Hackman (October, 1998 e-mail), co-developer of the JCM, revealed that no direct tests have been conducted on the JCM as it relates to the

population of working adults with SPMI. There are numerous reasons for conducting such an investigation. First, I/O psychologists clearly see the relevance of job design for dealing with work-related issues of distinct populations. Second, anecdotal evidence suggests that dimensions of jobs and other factors noted in the JCM and similar frameworks may be relevant to the population of adults with SPMI. Third, investigations of work barriers that exist for persons with psychiatric disabilities suggest a link to job design. Finally, legislation strongly supports consideration of job accommodations, including job re-structuring, as a means for making reasonable workplace modifications for persons with varying disabling conditions.

A variation of the Job Characteristics Model (JCM) is expected to have utility for effectively "matching" adults with SPMI to jobs. Information related to perceived job characteristics and other variables in the JCM is expected to be useful to a) CSP workers and others engaged in communicating with consumers about work-related issues and goals, b) job developers in assisting members of this population seek out jobs, c) employers interested in modifying jobs to suit the needs of persons with SPMI, and, d) consumers and their families attempting to understand job-related factors that might influence success at work.

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ACTUALIZATION OF BEST PRACTICES MODEL SYSTEM-WIDE: KNOX-LICKING COUNTY PROJECT

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Recovery is defined as "a personal process of overcoming the negative impact of a psychiatric disability despite its continued presence," according to the Ohio Department of Mental Health (ODMH) (Townsend, Boyd, Griffin, Hicks, & Hogan, 1999, p. 3). The Office of Consumer Services, ODMH developed a Recovery Process Model and Emerging Best Practices to encourage quality mental health services. In Knox and Licking Counties we are trying to actualize the Best Practices Model throughout our mental health system because past research has linked self-help to empowerment (e.g., Zimmerman & Rappaport, 1988; Maton, 1988) and found that increased lay support increases empowerment (Thompson, 1989, Murnen & Smolak, 1998).

It was hypothesized that involvement in a Recovery system of care should result in increased perceptions among consumers that services are Recovery-oriented, which will be related to increased empowerment and better quality of life. In terms of clinical outcomes, it is proposed that provider systems will facilitate and support recovery by integrating the Best Practices Recovery Model into the treatment planning and service delivery processes. It is expected that staff members working in partnership with consumers and experiencing training in the Recovery Model will show increased support for the Recovery Model and stronger endorsement of beliefs that consumers are capable of recovery compared to staff members who are not involved in the Recovery Model. In terms of more general systems outcomes, community supports that enhance recovery will be developed and supported.

Consumer Outcomes Assessment

Participants. We have administered pre-test measures to three groups of individuals. The experimental group (n = 56) is a group that is participating in services with a clinician and/or case manager who is trained in the Recovery Process Model and is using Recovery-oriented services (they were selected by the clinicians); the "matched" control group is a group that is participating in services with a clinician and/or case manager who is trained in the Recovery Model but who is NOT using Recovery-oriented services but instead more traditional services (n = 98), and the third group is an unmatched control group which is a group that is participating in services with a clinician and case manager who are NOT trained in the Recovery Model, thus consumers are experiencing more traditional services (n = 87). Additional experimental group members are currently being tested. Consumers signed a consent form indicating that they knew that any information they provided would be kept confidential and that they could discontinue participation at any time and still receive $30 in return for their participation. In some cases consumers were interviewed for the study, but if they preferred to fill out the questionnaire on their own, that was facilitated.

Materials and Procedure. First, participants indicated how often they had been encouraged to participate in various activities by their clinician and/or case manager. The activities listed are those that would likely be encouraged if one was working from a Recovery-oriented perspective (see Table 1). Participants rated the frequency with which they had been encouraged to do each activity in treatment on a five-point scale (Assessment of Services - Consumers). On the next page these same issues are listed, but participants rate their capability of engaging in each activity on a five-point scale (Capabilities -

Consumer Ratings). The same items are then listed again and participants are asked to rate the extent to which they are interested in pursuing each issue in their treatment on a five-point likert scale (Consumer Interests). (Consumers were also asked a number of open-ended questions concerning Recovery which will be available for future reports.)

Table 1. Issues Addressed in Consumer and Staff Member Measures

Find meaningful employment
Be career-minded
Resist others' decision making when appropriate
Feel a sense of self-determination
Accept mental illness
Work cooperatively with case manager
Advocate for those with mental illness
Develop supportive relationships with peers
Participate in self-help organizations
Work in partnership with service providers
Challenge the ideas of service providers when appropriate
Be involved in the larger community (e.g., sit on boards of organizations)
Educate oneself about one's psychiatric medications
Develop supportive relationships with family members
Take responsibility for managing one's illness
Working with service providers to develop own treatment plan
Seek out educational resources

Note. Consumers are asked to rate these issues in terms of how much they have been encouraged to do each, how capable they feel of pursuing each, how interested they are in pursuing each; staff members are asked to rate clients' capabilities of pursuing each, and the extent to which they are encouraging each issue.

The ODMH Consumer Outcomes System Adult Consumer Form A was also administered which has subscales of Quality of Life, Physical Health, Symptom Distress, and Empowerment (Ohio Department of Mental Health, 2000). Another measure used was Lehman's Quality of Life Scale (Lehman, 1983) to measure subjective evaluations of quality of life in the areas of housing, leisure, family, social relations and finances.

Clinical Outcomes

Participants. Sixty-one staff members have filled out confidential measures to assess their perceptions of clients' capabilities and their current practices in treatment, both from a Recovery-oriented perspective.

Materials and procedure. The same 17 issues identified for consumers are listed for staff members who are asked to indicate how capable they feel consumers (in general) are of being involved in each activity on a five-point rating of capability (Client Capabilities - Staff Perspective). Staff members were then asked to indicate the extent to which they are encouraging each of the 17 issues with clients using a five-point scale (Recovery Practices - Staff Members). Staff members were also asked the same open-ended questions about recovery that consumers were asked which will be available for future reports.

Data were available for 61 individuals at the pre-test. Approximately half of these staff members subsequently participated in training on the Recovery Model by the ODMH Office of Consumer Services. We have not yet divided the data set into "trained" and "untrained" staff members but will do so for future reports.

Systems Outcomes

Participation of consumers and family members in activities related to the grant will be monitored throughout the grant. Additionally, attendance at Consumer Recovery Centers of both consumers and service providers will be monitored.

Results and Discussion

Consumer Outcomes -- Pretest Data. The design of the complete study is a three-group (Experimental, Matched Control, Unmatched Control) by two-time (pre-test to post-test) mixed-design factorial with the multiple dependent variables of satisfaction with services and recovery outcomes. For the present study we have pre-test data only. In a multivariate one-way between-subjects ANOVA, the three groups were compared in terms of their average score on each of the following measures: 1) Assessment of Services, 2) Consumer Capabilities, and 3) Consumer Interests. There was no significant multivariate effect of group (Pillais' statistic, $p > .05$). Similarly, there was no effect for group on the ODMH Outcomes System measure or the Lehman Quality of Life subscales (Lehman, 1983) as determined by multivariate ANOVAS (p's > .05).

Across all three groups of consumers, the differences between assessment of services, capabilities, and interests across the 17 were examined in a series of one-way repeated-measures ANOVAS using a Bonferoni correction to control Type I error ($p < .001$). Table 2 portrays these data. For ten of the 17 domains listed, there are significant differences across the three types of questions (p's < .001). Generally the pattern of results is such that the interest ratings were the highest.

Clinical Outcomes--Pretest Data. The design of the complete study is a two group (trained vs. untrained staff) X two-time (pre-test vs. post-test) mixed-design factorial ANOVA on adoption of the Recovery Model in practice and ratings of the capabilities of consumers. Ratings of staff members' practices were compared to staff members' ratings of consumers' capabilities across all 17 domains listed in Table 1. These scores were compared through a series of correlated groups t-tests using a Bonferoni correction ($p < .001$). Table 3 portrays these data. For 15 of the 17 issues, staff members rated their encouragement of the activity higher than the corresponding rating of the clients' capabilities.

Consumers' Ratings vs. Staff Members' Ratings. Finally, consumers reported on how capable they felt they were of each of the activities, and staff members also indicated their perception of the capability of consumers. A series of independent groups t-tests compared consumers' ratings to those of staff members using a Bonferoni correction ($p < .001$). These tests indicate whether consumers feel they are more capable than staff members perceive them to be in each domain (or vice-versa). Table 4 contains these data. Only a couple of the effects were statistically significant.

Similarly, consumers reported on how much they perceived that they were encouraged to engage in each of the 17 activities in their treatment, and staff members indicated their perception of how much they encouraged each issue in treatment. These perceptions were compared in a series of independent group t-tests also controlling for Type I error using the Bonferoni correction ($p < .001$). For twelve of the 17 domains there was a significant difference between the ratings of consumers and staff members with

the consistent pattern that staff members gave higher ratings of the perception that they had encouraged the activity than consumers rated it as part of their treatment. Thus, staff members perceived that they encouraged a variety of activities more often than consumers perceived that the staff encouraged the activities. These discrepancies could be misperceptions on someone's part or self-serving perceptions on someone's part, but the fact that there is a difference might be worthy of discussion and future research.

Systems Outcomes. A Recovery Collaborative Team has been meeting and one of the first tasks of the group was to hire Glenn Hopkins as the organizer. He has been working to help integrate the various constituencies involved in the process of trying to adopt the Recovery Model system-wide.

One event that has come out of the training of staff and the meetings of the collaborative group is that a "Recovery Management Plan" (RMP) has been developed to use with clients who are receiving Recovery-oriented services. The RMP is replacing the Individual Service Plan (ISP) for members of the experimental group. The RMP is a process in which consumers and staff members work together to determine progress and goals within each of the nine areas involved in the Recovery Model. After the RMP is used for six months, an assessment will be made of perceptions of the RMP in the experimental group, and these will be compared to perceptions of the ISP among those in the control group.

Table 2. Consumer Responses to Recovery-Oriented Issues ($N = 234$)

	Encouraged	Capability	Interest
Employment	2.74 (1.43)	2.76 (1.38)	3.16 (1.51)*
Career-minded	2.68 (1.38)	2.74 (1.32)	3.13 (1.41)*
Resist others	3.17 (1.39)	3.12 (1.24)	3.24 (1.26)
Self-determination	3.68 (1.19)	3.12 (1.24)	3.68 (1.26)*
Accept illness	3.60 (1.42)	3.66 (1.19)	3.81 (1.24)
Work cooperatively	3.78 (1.40)	3.94 (1.13)	3.90 (1.16)
Advocate	3.04 (1.52)	3.31 (1.33)	3.47 (1.32)*
Relationships peers	3.57 (1.26)	3.36 (1.2)	3.66 (1.17)*
Self-help organize	3.19 (1.33)	3.13 (1.34)	3.19 (1.34)
Partnership providers	3.48 (1.32)	3.41 (1.16)	3.19 (1.34)
Challenge providers	3.02 (1.4)	3.16 (1.25)	3.28 (1.22)
Larger community	2.32 (1.38)	2.45 (1.43)	2.55 (1.47)
Educate - medicate	3.28 (1.39)	3.54 (1.31)	3.65 (1.30)*
Family relationships	3.50 (1.46)	3.31 (1.33)	3.65 (1.37)*
Managing illness	3.94 (1.13)	3.59 (1.11)	3.92 (1.16)*
Work with	3.52 (1.30)	3.55 (1.19)	3.82 (1.19)*
Educational resource	3.01 (1.42)	3.24 (1.32)	3.48 (1.33)*

Note. Consumers are asked to rate these issues in terms of how much they have been encouraged to do each, how capable they feel of pursuing each, how interested they are in pursuing each; staff members are asked to rate clients' capabilities of pursuing each, and the extent to which they are encouraging each issue.
*$p < .001$

Table 3. Staff Members Responses to Perceptions of Consumers' Capabilities, and Encouragement of Recovery-Oriented Practices ($N = 61$)

	Capability	Encouraged
Employment	3.08 (.84)	4.21 (.61)*
Career-minded	2.48 (.81)	3.30 (.98)*
Resist others	3.02 (.83)	4.18 (.83)*
Self-determination	3.16 (.90)	4.30 (.79)*
Accept illness	3.30 (.94)	4.13 (.75)*
Work cooperatively	3.68 (.68)	4.68 (.56)*
Advocate	2.92 (1.07)	3.43 (1.12)
Relationships peers	3.25(.92)	4.49 (.54)*
Self-help organize	3.30 (.88)	4.06 (.83)*
Partnership providers	3.42 (.70)	4.55 (.59)*
Challenge providers	2.86 (.79)	3.80 (.89)*
Larger community	2.43 (.97)	2.79 (1.14)
Educate - medicate	2.99 (.87)	4.10 (.83)*
Family relationships	3.15 (.80)	4.39 (.61)*
Managing illness	3.03 (.93)	4.57 (.50)*
Work with	2.52 (.79)	3.57 (.88)*
Educational resource	3.20 (.81)	3.64 (.85)*

*$p < .001$

Table 4. Comparison of Consumers and Staff Members' Responses to Ratings of Consumer Capability and Encouragement of Issues in Treatment

	Capabilities		Encouraged	
	Consumers	Staff	Consumers	Staff
Employment	2.76 (1.38)	3.08 (.84)	2.74 (1.43)	4.21 (.61)*
Career-minded	2.74 (1.32)	2.48 (.81)	2.68 (1.38)	3.30 (.98)
Resist others	3.12 (1.24)	3.02 (.83)	3.17 (1.39)	4.18 (.83)*
Self-determination	3.12 (1.24)	3.16 (.90)	3.68 (1.19)	4.30 (.79)*
Accept illness	3.66 (1.19)	3.30 (.94)	3.60 (1.42)	4.13 (.75)
Work cooperatively	3.94 (1.13)	3.68 (.68)	3.78 (1.40)	4.68 (.56)*
Advocate	3.31 (1.33)	2.92 (1.07)	3.04 (1.52)	3.43 (1.12)
Relationships peers	3.36 (1.20)	3.25(.92)	3.57 (1.26)	4.49 (.54)*
Self-help organize	3.13 (1.34)	3.30 (.88)	3.19 (1.33)	4.06 (.83)*
Partnership providers	3.41 (1.16)	3.42 (.70)	3.48 (1.32)	4.55 (.59)*
Challenge providers	3.16 (1.25)	2.86 (.79)	3.02 (1.40)	3.80 (.89)*
Larger community	2.45 (1.43)	2.43 (.97)	2.32 (1.38)	2.79 (1.14)
Educate - medicate	3.54 (1.31)	2.99 (.87)	3.28 (1.39)	4.10 (.83)*
Family relationships	3.31 (1.33)	3.15 (.80)	3.50 (1.46)	4.39 (.61)*
Managing illness	3.59 (1.11)	3.03 (.93)*	3.94 (1.13)	4.57 (.50)*
Work with	3.55 (1.19)	2.52 (.79)*	3.52 (1.30)	3.57 (.88)
Educational resource	3.24 (1.32)	3.20 (.81)	3.01 (1.42)	3.64 (.85)*

Note. Higher scores mean higher perception of capability or greater encouragement.
* $p < .001$

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"BRIDGING THE GAPS" IN THE MENTAL HEALTH SYSTEM: AN EXAMINATION OF PROCESSES AND OUTCOMES OF THE LICKING-KNOX COUNTY HOUSING SUPPORT PROJECT

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The Community and Mental Health and Recovery Board (CMHRB) of Licking and Knox Counties was awarded a grant from the Ohio Low-and-Moderate Income Housing Trust Fund for a project that provides rental assistance and supportive services necessary to help clients with a serious and persistent mental illness maintain safe, decent, and affordable housing. Their project will "bridge the gaps" that currently exist within the mental health system by linking housing and supportive services. The Board believes that this project will move clients along in the recovery process, going from dependency on the mental health care delivery system and unawareness of issues associated with their illness, to functioning without assistance and being actively involved in the community. The foundation for this project was based, in part, on both the Best Practices Model of Recovery outlined by the Ohio Department of Mental Health (Townsend, Boyd, Griffin, Hicks & Hogan, 1999) and the Community Support Program (CSP) operated by the local consumer drop-in centers in Licking and Knox Counties.

In the present study we are comparing a group of consumers who receive housing-related supportive services to a control group of consumers who do not receive services. Previous research has found that encouraging a self-help orientation helps progress in recovery (Segal, Silverman, & Temkin, 1995, Zimmerman & Rappaport 1988; Maton 1988; Thompson, 1989). We expect that consumers who receive the services will progress in their recovery as indicated by greater personal competence, group-orientation, self-efficacy, and agreement with attitudes indicative of one in recovery which will in turn be related to greater self-sufficiency.

Participants

We have collected year-one data on 59 individuals in the experimental group (those receiving the housing-related services) and 76 participants in a control group (those who have a serious mental illness but are not receiving the housing-related services). The control group participants were identified by producing a list of those individuals who are certified to have a serious mental illness ("508 certified") and selecting every fourth name on the list to generate an appropriate sample size. (If the fourth name was someone in the experimental group the next name was chosen). We also have year-two data from 50 of the individuals in the experimental group and 64 in the control group.

Measures

Various scales were used to measure attitudes relevant to the recovery process. Bolton and Brookings' (1998) measure of intrapersonal empowerment measures personal competence (belief in one's ability to affect outcomes), group orientation (one's ability to work cooperatively with others), self-determination (ability to stand up for one's rights), and positive sense of identity as a person with a disability (we changed items to represent a person with a mental illness). The authors reported internal consistency coefficients from .80 to .89 and found evidence for the construct validity and appropriate discriminant validity of their scale.

We also included Scherer and colleagues' measure of self-efficacy (Scherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982) which is the belief that one can successfully perform a particular behavior. The scale contains the factors of general and social self-efficacy, determined through factor analysis. The Cronbach's alphas for the two subscales were reported as .86 and .71, respectively. Similarly, Rosenberg's (1965) self-esteem scale was used.

Thompson's (1989) measure of social support was used to measure size and amount of support consumers are experiencing from both a lay and professional network. In a previous study we found that the amount of support from the lay network was positively related to empowerment measures (Murnen & Smolak, 1998).

Because these three scales do not capture all of the relevant domains of recovery as outlined in the Ohio Department of Mental Health (ODMH) recovery model, we developed a scale for purposes of this study--the Recovery Orientation Scale. On this scale there are questions about perceptions of relationships with service providers, perceptions of knowledge of available resources, and attitudes about stigma that are not measured by other scales used. An initial factor analysis of this scale indicated that many of the items were loading on one factor related to personal competence. Because it was believed that personal competence and group orientation were being measured appropriately by Bolton and Brookings' (1998) measure, a second factor analysis was conducted using only items that related to relationships with service providers, awareness of stigma, and financial issues. This second factor analysis resulted in a nine-factor solution with one factor accounting for most of the variability. The factor contained almost all of the items originally designed to measure relationships with service providers. This construct is not being measured by any other scale in the data set, so this scale called "Clinical Partnerships" was used in the present analysis (see Table 1). Responses to the items show an internal consistency, alpha coefficient of .85.

In terms of outcomes, self-sufficiency was measured by the number of unmet needs people are experiencing, based on a measure used by Perese (1997). Housing status was determined by a question from the IAPSRS toolkit residential domain, which asks people to represent on a dimension the amount of independence they experience from 1 indicating incarceration, to 7 indicating independent living. We also developed a measure of the amount of different kinds of local services people are currently receiving which asks whether people are receiving any of 11 different services (and how many times per month they receive them) including counseling, case management, various medical services, housing assistance, and vocational services. This measure was developed in consultation with the housing support specialists and two case managers.

Procedure

Consumer housing support specialists were in charge of organizing the interviewing process. They hired other consumers to conduct the interviews. People were contacted by phone or in person at either a consumer center or a mental health agency and asked if they wanted to participate in an anonymous study concerning "attitudes among consumers of mental health services." They were told they would receive $30 in return for their participation which could take up to two hours. If people agreed to participate, they were interviewed (or filled out the scale on their own) at either a consumer center, mental health center, their home, or some other convenient location. Participants filled out a consent form informing them of their rights as a research participant.

Table 1. Items on the "Clinical Partnerships" scale

I know when I need to see my counselor/case manager.
I have discussed my medication with my doctor or nurse.
If I thought my medication or therapy needed to change, I would tell the professionals I work with.
I feel that I have some control over the course of treatment of my symptoms of my mental illness.
I am learning as much as possible about my mental illness.
I have told my case manager/counselor/doctor which of my behaviors I would like to change.
If I am dissatisfied with my case manager/counselor/doctor, I know what steps to take to make a change.
I keep track of my progress in treatment.
If I needed some information about my mental illness, I would find a way to get it.
I am a very active participant in the process of recovery from my mental illness.

Note. Participants indicate the extent to which they disagree or agree with each statement on a 5-point Likert scale.

Research Design and Data Analysis

In the full project, measures of "mediating constructs" and outcomes will be collected from individuals at three different time periods. At each time frame, correlational analyses will be conducted to determine how scores on the mediating constructs relate to scores on the outcome measures. Multiple regression analyses will be used to assess the best combination of predictors (mediational constructs) of the outcome criterion variables. Data will also be examined by conducting multivariate mixed-design factorial analyses of variance to see if there are changes in mediational variables and outcome variables across time (3 time periods) and by group (experimental vs. control).

For the present data set at time 2, mixed-design factorial ANOVAs were conducted to examine the influence of time (time 1 vs. time 2) and group (experimental and control group) on the measures. There were few significant effects of group, time, or the interaction of group and time. It was found that, as expected, there was a significant effect of group on housing status F (1,112) = 3.77, p = .05, and on needs F (1,112) = 5.73, p < .05 with the experimental group reporting less independent living and more needs across the two time periods. There was one significant effect of time on amount of lay support such that both groups experienced more lay support across time F (1,112) = 4.25, p < .05. There was an interaction between time and group that was marginally significant for housing status, F (1,112) = 3.46, p = .06 which showed that while the experimental group's housing score increased (indicating more independent living), the control group's score did not change significantly. On the seven-point housing

scale where 7 indicates the most independent living, the experimental group's score changed from 5.77 at time 1 to 6.40 at time 2; while the control group's scores were 6.49 and 6.44, at time 1 and 2, respectively.

We also examined the correlation coefficients between mediating variables and outcome variables at time 2. These data are displayed in Table 2. Number of services received is significantly positively related to amount of professional support the person is receiving as well as the extent to which they agree that they are in a strong partnership with service providers. Number of unmet needs was significantly negatively related to self-esteem, general self-efficacy, social self-esteem, personal competence, positive sense of disability, and clinical partnerships.

Table 2. Correlations between Predictor and Outcome Variables, Time 2 (N = 114)

	# Services	# Unmet Needs	Housing Status
Self-Esteem	-.03	-.22**	.12
General Self-Efficacy	.05	-.23**	.06
Social Self-Efficacy	.02	-.17*	-.02
Personal Competence	.02	-.19*	.02
Self-Determination	-.08	-.11	-.01
Group Orientation	.09	-.08	-.04
Positive Disability	-.11	-.24**	.01
Clinical Partnership	.21*	-.16*	.02
Amount Lay Support	.15	.06	.11
Amount Professional Supp	.21*	.12	-.04

*$p < .05$, **$p < .01$.

Discussion

There were few changes in either the experimental or the control group across the one-year time period except that both groups reported an increase in lay support, and the marginally significant interaction between group and time on housing indicated that the experimental group's housing became more independent. Correlations conducted on time 2 data indicated that a number of variables were related to unmet needs, and that the more services consumers were experiencing, the more professional support they reported, and the more positive their partnership with service providers. It seems that the recovery-oriented contact with staff members has led to positive evaluations on the part of consumers.

A third interview will take place starting in June, 2001. It is possible that significant change will be detected at this time which represents two years after the first interview. By having data from three time periods we will be able to assess change across time. It is expected that the participants who receive housing linked with supportive services will show progress in their recovery that will be related to the outcome of greater self-sufficiency.

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EXPOSURE TO VIOLENCE AND AGGRESSIVE BEHAVIOR IN YOUTH WITH PSYCHIATRIC DISTURBANCES

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Youth today report alarmingly high rates of witnessing, perpetrating, and otherwise experiencing violence (Moffitt, 1993; Pastore, Fisher, & Friedman, 1996; Singer, Anglin, Song, & Lunghofer, 1995). Violent crime peaks in late adolescence, at approximately 17 years of age (Moffitt, 1993). In particular, aggression in youth with psychiatric disturbance appears to be an increasing public health problem. Results of a recent study (Knox, King, Hanna, Logan, & Ghaziuddin, 2000) indicated that treatment-seeking adolescents with depression engage in markedly high levels of aggression. Substance abuse and dependence may also influence the development of aggression; the effects of alcohol and drug use on neurophysiological and cognitive processes have been implicated in the etiology of severe aggressive behavior (e.g., Bushman, 1997).

Exposure to violence is another factor that appears to be associated with the increased risk for aggression. American youth report witnessing violence at extremely high rates (Singer et al., 1995), and recent research indicates significant associations between witnessing violence and victimization and the development of aggressive behavior in youth (e.g., Gorman-Smith & Tolan, 1998). Further, the interaction between psychiatric or neurological vulnerabilities and a history of abuse or family violence has been shown to be the best predictor of violence in adults (Otnow Lewis, Lovely, Yeager, & Della Femina, 1989). Thus, for youth, it may be the cumulative effects of psychiatric disturbance and exposure to violence that places them at highest risk for future violence.

The primary goal of the present study is to examine prospectively whether aggressive behavior is significantly heightened in youth with preexisting depressive and substance use disorders who are also exposed to high levels of violence.

The following hypotheses are examined in the present study:

1. Exposure to violence variables will contribute significantly to the prediction of aggressive behavior in a clinical sample of youth above and beyond that predicted by age, gender, and socioeconomic status.
2. Attitudes toward violence will contribute to the prediction of aggressive behavior above and beyond the prediction by exposure to violence variables, age, gender, and socioeconomic status.
3. Youth with higher levels of aggressive behavior will be characterized by higher levels of exposure to violence and presence of depressive disorder and substance dependence.
4. Gender will correlate significantly with level of violence exposure and attitudes toward violence. If this hypothesis is supported, further analyses will be conducted separately by gender, as follows:
   - 4a. The prediction of aggressive behavior will differ for females and males. Specifically, exposure to violence will contribute more strongly to the prediction of aggressive behavior for females than for males.
   - 4b. The following question will be addressed: do attitudes toward violence contribute more strongly to the prediction of aggressive behavior in psychiatrically disturbed males than females? No studies have addressed this question. Therefore, no specific prediction is made.

Methodology

Participants. Participants were 120 thirteen to seventeen year old inpatients who were referred for treatment in the Medical College of Ohio Kobacker Center. Individuals who were unable to complete study measures due to intellectual limitations (e.g., moderate to profound mental retardation) or psychosis were excluded from the study. The mean age of the sample was 14.66 years (*SD* = 1.38). Of the total sample, 45.8 percent were male, and 54.2 percent were female. The sample was primarily (87.5%) White/Caucasian, with 5.8 percent Black/African-American, 1.7 percent Hispanic/Latino/Latina, 0.80 percent Native American/American Indian, and 4.2 percent Biracial.

Procedure. At their initial appointments or admissions at the Kobacker Center, participants and their caregivers were provided informed consent forms and asked to provide consent for their participation in the study. Adolescent participants completed the Diagnostic Interview for Children and Adolescents-Fourth Edition (DICA-IV), Screen for Adolescent Violence Exposure (SAVE), Buss-Durkee Hostility Inventory (BDHI), Adolescent Aggressive Incidents Interview (AAII; Child Version), Personal Experience Screening Questionnaire (PESQ) and the Attitudes Towards Violence Scale (ATVS). The BDHI and the AAII evaluate level of aggressive behavior. The PESQ evaluates substance use, and the ATVS addresses attitudes toward the use of violence. The SAVE evaluates level, type, and context of violence exposure over the past year. Adolescents' primary caregivers were interviewed separately and asked to complete the Adolescent Aggressive Incidents Interview (Parent Version), Child Behavior Checklist-Parent Form, and a brief demographic questionnaire. Each adolescent participant received $10 for completion of the study measures. Caregivers who completed study measures also received $10 for completion of the measures.

Participants and their caretakers are currently being recontacted for participation in the second phase of the project, one year after Phase 1 of the study. For Phase 2, adolescent participants are asked to complete the SAVE, BDHI, ATVS, PESQ and AAII. They are also asked to report about mental health treatment received in the interim. Adolescents' primary caregivers are asked to report type and level of participation in treatment over the past year addressing aggressive behavior. They also complete the AAII, the Child Behavior Checklist-Parent Form, and a brief demographic questionnaire. Each adolescent participant will receive $10 for completion of the phase two study measures. Caregivers who complete study measures will also receive $10 for completion of the phase two parent measures. To date, all Phase 1 data have been gathered, and the collection of Phase 2 (one year follow-up) data is currently underway.

Results

Mean scores and standard deviations on aggression measures and exposure to violence measures for the total Phase 1 sample are listed in Table 1. Mean exposure to violence scores on the SAVE are below the cutoff scores classifying high exposure to violence groups (Hastings & Kelley, 1997). The sample's mean score on the Child Behavior Checklist – Aggression Scale falls in the clinically elevated range. Mean scores on the BDHI are below the mean for a comparison group of adolescents institutionalized for aggression, but above those for a group of nonaggressive, noninstitutionalized adolescents (Boone & Flint, 1988).

Table 1. Means and Standard Deviations of Scores on Aggression, Attitudes toward Violence, and Exposure to Violence Measures

Variable	Mean	Standard Deviation
Aggression Measures		
BDHI	48.32	39.02
CBCL	73.13	12.48
AAII-C	10.83	6.55
AAII-P	0.60	7.16
Attitudes Toward Violence Scale		
ATVC	14.19	4.72
ATVR	21.71	6.72
ATVT	38.67	10.64
Screen for Adolescent Violence Exposure		
SAVEH	12.71	12.39
SAVES	17.36	17.31
SAVEN	16.84	13.25

Note. BDHI = Buss-Durkee Hostility Inventory; CBCL = Child Behavior Checklist Aggression Scale; AAII-C = Adolescent Aggressive Incidents Interview - Child Version; AAII-P = Adolescent Aggressive Incidents Interview - Parent Version; ATVC = Attitudes Toward Violence Cultural subscale; ATVR = Attitudes Toward Violence Reactive subscale; ATVT = Attitudes Toward Violence Total Score; SAVEH = Screen for Adolescent Violence Exposure - Home; SAVES = Screen for Adolescent Violence Exposure - School; SAVEN = Screen for Adolescent Violence Exposure - Neighborhood.

Hierarchical multiple regression analyses were used to address hypotheses #1 and #2. In the analysis, age, gender, and socioeconomic status (SES) were entered in the first block. Mother's occupation was used to identify SES because this variable was available for the largest portion of the sample. These variables accounted for five percent of the variance in aggressive behavior scores on the AAII-Child Version (R = .23; R^2 = .05). In the second block, exposure to violence (SAVE) scores were entered. This model (demographic variables and exposure to violence scores) accounted for 34 percent of the variance in aggressive behavior scores (R = .58; R^2 =.34). The change in R^2 was statistically significant (R^2 Change = .29; F = 36.39; p < .001). In the next block, attitudes toward violence (ATVS) scores were entered. This resulted in an insignificant change in R^2 (.01; R = .59; R^2 = .35). Table 2 depicts results of the hierarchical regression analysis.

Table 2. Summary of Hierarchical Regression Analysis for Variables Predicting Aggressive Behavior

Variable	R^2	B	*SE* B	β
Step 1	.05			
Gender		.46	1.42	.04
Age		-.46	.52	-.10
SES		-.07	.04	-.19
Step 2	.34			
Gender		.59	1.19	.05
Age		-.29	.43	
SES		-.05	.03	-.15
Exposure to Violence		.09	.02	.54*
Step 3	.35			
Gender		.50	1.19	.04
Age		-.34	.44	-.07
SES		-.05	.03	-.14
Exposure to Violence		.08	.02	.49*
Attitudes Toward Violence		.06	.06	.10

* $p < .0001$

Multivariate analysis of variance was used to address Hypothesis #3, that youth with higher levels of aggressive behavior will be characterized by higher levels of exposure to violence and presence of depressive disorder and substance dependence. A MANOVA was completed with adolescent-reported aggression scores (scores on the AAII and BDHI) as the dependent variables. Because very few ($n = 3$) participants acknowledged enough symptoms to qualify for a diagnosis of substance dependence, scores on the PESQ (presence or absence of use of illicit drugs or use of alcohol and at least one illicit drug) were not included in this analysis. A significant main effect of exposure to violence was evident ($F = 13.51$; $p < .001$). Main effects of depression and substance abuse were not statistically significant. Gender was not significantly correlated with exposure to violence, attitudes toward violence, or aggression scores.

Discussion

The primary goal of the present study is to examine prospectively whether aggressive behavior is significantly heightened in youth with preexisting depressive and substance use disorders who are also exposed to high levels of violence. All Phase 1 data have been gathered, and the collection of Phase 2 (one year follow-up) data is currently underway. This sample reports moderate to high levels of aggressive behavior. Results indicate that violence exposure contributes to the prediction of aggression above and beyond that made by age, gender, and SES. These results indicate that exposure to violence, that is, witnessing, hearing about, or otherwise experiencing violence in the home, school, and community, is associated with heightened levels of aggression in inpatient adolescents. The amount of violence to which an adolescent is exposed is a highly prognostic indicator of whether that adolescent will demonstrate higher levels of aggressive behavior; this variable tells us more about the risk for aggression than do gender, SES and age. Multivariate analyses also indicated that youth with high levels of aggression are characterized primarily by high levels of violence exposure. However, it should be noted

that these data are cross-sectional. When Phase 2 data are collected, these questions will be addressed prospectively. The question of whether violence exposure predicts future aggression will be more precisely resolved when Phase 2 data analyses are complete. In addition, further analyses will be conducted examining which type, level, and context (e.g., school, home, neighborhood) of violence exposure is most closely associated with the development of aggression.

These Phase 1 data indicate that the most auspicious variable (of those measured) in the attempt to identify youth at risk for aggression is exposure to violence. This finding concurs with the latest literature which now suggests that violence exposure is a grave stressor on youth, and leads to serious emotional and behavioral problems in America's young people. Exposure to violence has been shown to be as or more distressing to youth than actually experiencing violent acts. This appears to be particularly true for witnessing violence within the home.

Information gained from the study may be used in prevention and treatment efforts aimed at decreasing aggressive behavior in clinically-referred youth. It is anticipated that information gained in the study will be particularly useful to practitioners working with seriously mentally ill youth who pose a risk for severe aggressive behavior. The identification of predictors of aggressive behavior will also benefit those involved in program and policy development addressing the prevention of youth aggression, and may help determine where to target limited resources designated for violence prevention. Phase 2 data have yet to be collected and analyzed. However, these Phase 1 results suggest that preventing or reducing youths' exposure to violence will be an indispensable step in reducing youth aggression and the significant emotional, financial, and physical burdens created by youth violence.

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Other Publications of the Research

Knox, M. S., Carey, M. P., & Kim, W. J. (in review). *Depression and aggression in inpatient adolescents*: *Gender differences*.

Paper Presentations of the Research to Date

Knox, M. S., Carey, M. P., Kim, W. J., & Niedermeier, D. (2000, August). *Relationships among violence exposure, depression and aggressive behavior in youth*. Poster presented the American Psychological Association Convention, Washington, DC.

Knox, M. S., Carey, M. P., & Kim, W. J. (2001, April). *Relationships between depression and aggression in hospitalized adolescents: Gender differences*. Poster presented at the Biennial Meeting of the Society for Research in Child Development, Minneapolis, MN.

FACTORS PREDICTING REVICTIMIZATION AND RESILIENCE IN CHILD SEXUAL ABUSE SURVIVORS

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Over 800,000 children were victims of abuse or neglect in the United States in 1999 (USDHHS, 2001). Of these, about 11 percent suffered sexual abuse. Eighty percent of sexual abuse victims were female, while the majority of the perpetrators were male, compared to about even splits between male and female victims and perpetrators of other types of child maltreatment.

In a comprehensive review of the literature in this area, Kendall-Tackett and colleagues (1993) report that children display a wide range of symptoms in response to sexual abuse--including none at all. Abused children display different symptoms, with varying severity, over time. Some children's symptoms will improve over time, while other children's symptomology will get worse. The types of symptoms displayed by children range across the entire spectrum of emotional disturbance (Kendall-Tackett, Williams, & Finkelhor 1993).

There are significant long-term effects of child sexual abuse (CSA) on the survivors. Adult survivors of CSA display the same range of symptoms displayed by children in the immediate aftermath of abuse: depression, dissociation, low self-esteem, PTSD, etc. (Briere & Runtz, 1987; Kinzl & Biebl, 1992). In addition, adult CSA survivors are more likely than adults without abuse histories to develop sexual dysfunctions, eating disorders, Dissociative Identity Disorder, and Borderline Personality Disorder, and to become involved in prostitution (Briere & Runtz, 1987; Kinzl & Biebl, 1992). Finally, an increasingly large number of studies have made one fact clear: girls who are sexually abused in childhood are vulnerable to victimization in adulthood at approximately three to four times the rate of girls who were not abused in childhood; this phenomenon is called revictimization (Messman & Long, 1996). This paper and study focused exclusively on female victims. This is not meant to deny the existence of sexual abuse of boys. However, while boys are also the victims of child sexual abuse, studies have shown that boys are as likely to become perpetrators as be revictimized in adulthood, while girls are more likely to be revictimized (Stevenson & Gajarksy, 1991). The explanation for these two phenomena are likely to be quite different and based heavily in differential socialization of females and males in our society (see, for example, Levant, 1995; Thorne, 1990). In order to have a better understanding of revictimization, the study focused exclusively on women.

In their review of studies of child sexual abuse survivors, Messman & Long (1996) found strong support for the phenomenon of revictimization. Very few studies did not find statistical significance for higher rates of rape or battery in adulthood of child abuse victims than nonvictims. The studies they reviewed found revictimization rates ranging from 16 percent to 72 percent and found that women who were revictimized had higher levels of symptomology and psychological distress than other women. Furthermore, CSA survivors experienced a wide range of types of abuse in adulthood regardless of type of abuse they experienced in childhood.

The research to date has not provided a clear picture of the causes of revictimization. The evidence is fairly consistent in showing that revictimized women engage in more risky sexual behavior and experience higher levels of dissociation. However, the rest of the evidence is less clear. Research on coping strategies and attributions of abuse survivors shows inconsistent and conflicting results. Similarly,

there is inconsistent evidence for the role of self-esteem, self-blame, depression, and submissive behaviors in revictimization. This study presented and tested a model which attempts to account for the (inconsistent) results of previous studies.

A large percentage of child sexual abuse survivors are resilient; that is, they function well personally and professionally and do not continue to experience abuse in adulthood. Resilience has been defined as "successful adaptation or development during or following adverse conditions that challenge or threaten adaptive functioning or healthy development" (Masten & Wright, 1998, p. 10). By studying resilience, we hope to discover the mechanisms through which adulthood victimization can be avoided. Researchers have found both intrapersonal (such as intelligence) and interpersonal (such as supportive relationships) factors as important in fostering resilience (Masten & Wright, 1998). Some factors which have been found to foster resilience in traumatized children include: having a close relationship with a parent or an adult outside the family, being in a good school or having a good teacher, having a supportive social network, having high self-esteem, having non-self-blaming attributions for the abuse, and having maternal support after disclosure of abuse (Kaufman & Zigler, 1989; Masten & Wright, 1998).

The interpersonal theory of Harry Stack Sullivan (1953) focuses on the psychological development of human beings through crucial interpersonal relationships. Sullivan explains how dysfunctional relationships can have long-term and far-reaching effects on both interpersonal and intrapsychic factors for children. This model can be extremely useful in understanding the processes through which CSA victims are shaped by their abuse. [For a more detailed description of this interpersonal model of CSA, see Frenkel & Wright (2001).]

Interpersonal theory suggests that the presence of traumatic or “uncanny” emotions (such as shame and guilt) leads to the use dissociative defense mechanisms, which "protect" the individual by blocking from memory the disturbing experiences which rouse the emotions, as well as blocking the experiencing of the emotions themselves. The presence of dissociative symptoms and disorders among abuse survivors has been well-documented and is thought to be crucial in their later experiences. Sullivan's (1953) concept of uncanny emotions fits well with Finkelhor and Browne’s (1985) widely accepted model of the trauma-related beliefs associated with CSA, which are: self-blame/stigmatization, betrayal, powerlessness, and traumatic sexualization. In both of these models, traumatizing experiences lead to emotional states so distressing that they inhibit the formation of healthy patterns of behavior and leave the person more vulnerable to further victimization.

Thus, CSA can have pervasive effects on the victim's ability to interact appropriately with others. One of the central themes of interpersonal theories is that people develop patterns of interacting which tend to elicit reciprocal behavior (Benjamin, 1993). Victims of incest have learned to engage in unhealthy behaviors (which they are not able to recognize as reciprocal to abusive behavior) and they have learned distorted patterns of communication. This does not mean they cannot learn to interact and communicate in healthy ways, but that they need to have certain types of corrective experiences through supportive relationships in order to do so. The closer the relative who is the perpetrator and the longer the abuse, the more likely the child will be to learn dangerous patterns of behavior and the more difficult it will be to correct those patterns. Children who are not abused for long periods of time or by close relatives are less likely to develop dangerous patterns, especially if they have close and supportive relationships with their parents.

Interpersonal theory provides an explanation that is more compatible with feminist understandings of victimization experiences than earlier explanations such as “repetition compulsion” or

"mastering the abuse experience" which have drawn significant fire from critics. From this perspective, the CSA survivor is not thought to want, enjoy, or derive anything positive from the victimization experience or to seek it out. Rather, the survivor is understood as having dysfunctional patterns of interpreting her own experience and interacting with and interpreting the behavior of others. If the survivor were capable of recognizing the dangerousness of others' behavior, she would not elect to stay in the situation. The problem is that, due to self-perceptions shaped by trauma, dissociative defense mechanisms, and lack of healthy interpersonal patterns, the survivors who are most at risk for revictimization are not capable of recognizing the potentially dangerousness situations and therefore acting to remove themselves from those situations.

The purpose of this study is to test an interpersonal model of revictimization and resilience in childhood sexual abuse survivors. In particular, this study will examine four aspects of the interpersonal model: 1) the presence of anxiety and uncanny emotions in victims and nonvictims, 2) the role of dissociation in revictimization, 3) the importance of pattern formation in revictimization, with patterns thought of as developing over time, through closer relationships, and with more frequent, severe, and violent occurrences, and 4) the ability of social support to moderate the effects of CSA and prevent adulthood abuse.

In addition to the above hypotheses, the validity of the model will be checked by examining the following hypotheses: 1) if women who were abused only in childhood are truly resilient, they should be indistinguishable from a no-abuse control group on measures of symptomology, and 2) if the revictimized women are suffering from the effects of their multiple victimizations, rather than solely from their most recent abuse, they should be distinguishable from the adulthood-only victimization group on measures of symptomology and uncanny emotions. Additionally, these effects should be mediated by time elapsed from the most recent victimization experience.

Methods

Participants were 278 women, age 18 or over, who were recruited by three different methods: through a psychology department subject pool, through upper-level undergraduate and graduate courses in fields with high percentages of women students, and through recruitment flyers posted at eight different public and private universities and colleges. All participants were paid $10 for their participation. They were also entered in a raffle for a $200 prize.

Participants ranged in age from 18 to 53, with a mean age of 23, a modal age of 19, and with 27 percent of the sample between 23 and 53 years of age. The majority of the sample was Caucasian (86%), Christian (81%), single (83%), and heterosexual (90%) undergraduate students (80%). Participants were divided into four categories: never abused (NA, 30%), abused in childhood only (CSA, 20%), abused in late adolescence or adulthood only (AA, 19%), and abused in both childhood and late adolescence/adulthood (RV, 31%). Childhood abuse was defined as sexual abuse only, while adult abuse will refer to both sexual or physical violence. (The majority of the participants in the study were never abused. A control group was constructed to be equivalent to the abuse groups in age, race, and recruitment method. Data from 114 never abused women was not used.)

Participants were administered (subject pool) or mailed a questionnaire that asked about the following areas: demographics and background information (Finkelhor, 1979), child sexual and physical abuse history (Finkelhor, 1979; Trickett, Reiffman, Horowitz, & Putnam,1997), adult sexual and physical abuse history (Sexual Experiences Survey [SES], Koss & Oros, 1982; Index of Spouse Abuse [ISA], Hudson & McIntosh, 1981), trauma-related beliefs (TRBQ, Hazzard, 1993), feelings of shame and guilt

(Harder & Zalma, 1990), current symptomology (Trauma Symptom Checklist–40 [TSC-40], Elliot & Briere, 1992), perceptions of social support in childhood and adulthood (Procidano & Heller, 1983), and self-esteem (Rosenberg, 1979).

Previous studies have varied widely in their cutoffs for establishing abuse as occurring during childhood, without sufficient explanation of the reasoning behind these decisions. For the purpose of this study, a child will be defined as a person of under 16 years of age. This age was decided upon because of qualitative differences in the type of abuse experiences reported by the participants before and after age 16. CSA is being defined as sexual contact between a child and another person when that contact was unwanted and/or gained against the will or wishes of the child. The abuse may have occurred through force, coercion, threats, and/or intimidation. Child physical abuse (CPA) will be defined as "hitting, kicking, punching, shoving, stabbing, throwing someone down, etc." (Finkelhor, 1979). Adult sexual abuse (ASA) will be defined as attempted or completed rape, as measured by the SES (Koss & Oros, 1982). Although sexual coercion and forced sexual contact are also traumatic, they are so prevalent in college samples that they are now considered normative for that population (Koss & Gidycz, 1985). Adult physical abuse (APA) will be measured by the ISA (Hudson & McIntosh, 1981). This study uses the suggested cutoff of 10 points or more on the physical abuse subscale to determine physical abuse.

For the purposes of this study, revictimization and resilience are being treated as mutually exclusive outcomes. Revictimization is being defined as occurrence of ASA or APA to a CSA survivor (as defined above). Resilience is being defined as avoidance of abuse by a CSA survivor. While there may be women in this group who will be revictimized at a later time, their current functioning and their avoidance of adulthood victimization to date will hopefully provide useful information. The assumption of a resilience model is that there is successful adaptation (i.e., that the survivors are mentally healthy and functioning fully in their various roles).

Results

CSA Characteristics. 83 participants reported CSA. Of these, 43 reported incest (52%) and 48 reported nonfamilial CSA (58%); eight participants reported both incest and nonfamilial CSA (10%). Later analyses revealed that relationship to perpetrator was not a significant predictor of outcome, therefore, abuse characteristics are being reported for the entire CSA group. Average age of onset was 8.96 years (SD = 3.54, mode = 7) with an average duration of 16.48 months (SD = 25.84, mode = less than 2 weeks) and an average number of 129.47 abuse incidents (range = 1–2737, SD = 397.23, mode = 1). The perpetrators were 90 percent male, with an average age of 22.70 years (range = 6–70 years, SD = 13.7 years, mode = 13 years). CSA survivors had an average of 1.82 perpetrators (SD = 1.44, mode = 1). Participants reported the following breakdown of their most invasive abuse experiences: kissing/fondling (12%), genital contact (28%), oral sex (10%), digital penetration (19%), vaginal intercourse (27%), and anal intercourse (5%).

ANOVAs. One-way and two-way ANOVAs were run to examine the relationship between abuse and current symptomology, uncanny emotions, trauma-related beliefs, and perceptions of social support (see Table 1). One-way ANOVAs revealed differences between the NA and the abuse groups on current symptomology for dissociation (NA vs. AA, RV; F (3, 78) = 5.753, $p < 0.001$), anxiety (NA vs. RV; F (3, 78) = 4.751, $p < 0.01$), depression (NA vs. CSA, AA, RV; F (3, 78) = 6.976, $p < 0.001$), sexual abuse trauma index (NA vs. CSA, AA, RV; F (3, 78) = 9.513, $p < 0.001$), sleep disturbance (NA vs. CSA, AA, RV; F (3, 78) = 8.252, $p < 0.001$), sexual problems (NA vs. CSA, AA, RV; F (3, 78) = 10.647, $p < 0.001$), and total symptomology (NA vs. CSA, AA, RV; F (3, 78) = 9.275, $p < 0.001$). There were also significant differences between the groups on feelings of guilt (NA vs. RV; F (3, 78) = 2.894, $p < 0.05$)

and perceptions of social support from friends in childhood (NA vs. CSA, RV; F (3, 78) = 7.271, p < 0.001), from family in childhood (NA vs. CSA, RV; F (3, 78) = 4.642, p < 0.01), and from family in adulthood (NA vs. RV; F (3, 78) = 3.486, p < 0.001). Participants with no abuse history reported less symptomology, less guilt, and more perceived social support than revictimized participants.

There were no significant differences between the three abuse groups. This effect was not modified by controlling for the amount of time since the most recent abuse incident. However, an examination of the means and standard deviations shows that on most of the variables examined, the NA group has the score showing the least distress, followed by CSA, AA, then RV. On several items, particularly on guilt and trauma-related beliefs, the CSA group is closer to the NA group than the AA and RV groups. Please contact the first author for more information.

Two-way ANOVAs revealed main effects for CSA and AA on current symptomology: dissociation (F (1, 80) = 5.753, p = 0.001), anxiety (F (1, 80) = 4.751, p = 0.003), depression (F (1, 80) = 6.976, p = 0.000), sexual abuse trauma (F (1, 80) = 9.513, p = 0.000), sleep disturbance (F (1, 80) = 8.252, p = 0.000), sexual problems (F (1, 80) = 10.647, p = 0.000), and total symptomology (F (1, 80) = 9.275, p = 0.000). There were main effects for CSA on perception of social support in childhood from friends (F (1, 80) = 7.271, p = 0.000) and family (F (1, 80) = 4.642, p = 0.004). There were main effects for AA on feelings of guilt (F (1, 80) = 2.894, p = 0.037), trauma-related beliefs of stigmatization (F (1, 80) = 3.158, p = 0.028), trauma-related beliefs of powerlessness (F (1, 80) = 2.732, p = 0.048), total trauma-related beliefs (F (1, 80) = 3.019, p = 0.033), and perceived social support in adulthood from family (F (1, 80) = 3.486, p = 0.017). Participants with abuse reported higher levels of guilt, symptomology, and trauma-related beliefs and lower levels of perceived support than participants without abuse. There were no interactions (see Table 2).

Factor Analyses. Variables were factor analyzed to increase predictive power. The following sets of variables were analyzed: family of origin dysfunction, uncanny emotions, risky sexual behavior, perceptions of social support, severity of CSA, support related to CSA. Eleven factors were discovered: family of origin dysfunction, uncanny emotions, risky choices in sexual partners, young age of sexual consent/number of abortions, perceived friend support, lack of social support, family affection, amount of socializing, CSA severity, emotional support related to CSA, and institutional support related to CSA. (See Tables 3 & 4 for variables and factor loadings).

Discriminant Analyses. Discriminant analysis was used to determine which variables best-predicted revictimization of CSA survivors (see Table 5). CPA was the best single predictor of revictimization (Λ = 0.915, p = 0.007), correctly classifying 66.3% of the participants as either revictimized or resilient. Other significant predictors included CSA severity (Λ = 0.929, p = 0.015, 59%), poverty (Λ = 0.923, p = 0.018, 61.1%), stigmatization (Λ = 0.924, p = 0.015, 64.1%), powerlessness (Λ = 0.946, p = 0.041, 59%), total trauma-related beliefs (Λ = 0.922, p = 0.013, 62.8%), number of sexual partners (Λ = 0.935, p = 0.024, 62%), and number of pregnancies (Λ = 0.888, p = 0.003, 61%).

Interestingly, three of the factors (childhood family dysfunction, emotional support related to CSA, risky partner choices) were less predictive than the individual variables of which they consisted. Also, some variables that had only a trend toward significance were able to classify participants as well as, if not better than, other variables with higher significance (internalized dysphoria, Λ = 0.963, p = 0.085, 59.3%; support related to CSA, Λ = 0.920, p = 0.090, 62.2%; traumatic sexualization, Λ = 0.953, p = 0.056, 65.4%; engaging in sexual activities with strangers, Λ = 0.969, p = 0.116, 61.7%). Overall, the best model for prediction correctly classified 80.7 percent of the cases and contained five variables:

severity of CSA, CPA, total trauma-related beliefs, uncanny emotions, and number of times participant engaged in sexual activity with strangers.

Mediational Analyses. Mediational analyses were run to test a model of the relationship between predictors and to determine if any of the predictors mediated the effects of the other predictors. There was significant support to the model from these analyses. Please contact the first author for more information.

Discussion

This study was able to support several of its main hypotheses and give empirical support to the interpersonal model of effects of CSA. As predicted, severity of CSA was a predictor of which CSA survivors would be revictimized in adulthood. Survivors with more severe CSA were more likely to report adulthood victimization. Additionally, CSA-related emotional support was also predictive: survivors who told someone and were supported and not blamed were less likely to report adulthood abuse. There was support for the effects of uncanny emotions and trauma-related beliefs on the long-term well-being of CSA survivors. The individual dynamics of stigmatization, powerlessness, and traumatic sexualization, a total measure of trauma-related beliefs, and a measure of uncanny emotions were all able to significantly predict revictimization. Survivors with lower reported levels of trauma-related beliefs and uncanny emotions were less likely to be revictimized. The best model for predicting revictimization included many elements found to be significant in earlier studies: CSA severity, CPA, total trauma-related beliefs, uncanny emotions, and number of times participant engaged in sexual activity with strangers.

Unexpectedly, there was very little support for most of the measures of social support. There are several possible explanations for this. This was a college sample and that is a time in life when people tend to be surrounded by others. In general, the participants in this study reported high levels of current friendship-based social support; therefore, even those with poor family support had offsetting experiences and relationships. In early analyses of yet unpublished data, Wright found that among a community population of unwed mothers with CSA, social support accounted for 65 percent of the variance in depression. It is expected that a community sample would have more variability in social support and that social support would be more predictive in that group. Additionally, there were few participants with any institutional CSA-related experiences and only half the CSA survivors had told anyone or had the abuse discovered, leaving little power in those analyses.

Other hypotheses which were not supported were the role of dissociation and the symptomology of the CSA-only group. While the CSA group was closer to the NA group on certain key measures (trauma-related beliefs, guilt), it was not distinguishable from the AA and RV groups and was distinguishable from the NA group on most measures of symptomology. However, all four groups displayed floor effects on most of the symptomology variables, indicating that all groups were relatively symptom-free and pointing out the need for a more complex definition of resilience. While the RV group had experienced additional victimization, they also were functioning with few symptoms, had satisfying relationships, and were attending college. Clearly all of these factors need to be considered in any comprehensive understanding of their functioning and their potential for and/or actualized resilience. This study did find differing levels of dissociation between the control group and the AA and RV groups, but dissociation did not play a significant role in distinguishing between abuse groups or predicting RV. This may be an artifact of doing a retrospective study and using a high-functioning sample; however, it is still contradictory to other research in the field.

There are two major benefits to the field from this study: 1) it provides empirical support for Finkelhor & Browne's (1985) widely accepted theory and 2) it puts several widely accepted theories for recovery from CSA within a broader developmental model of healthy and dysfunctional human development. Future directions for this research include testing other aspects of the interpersonal model and duplicating these finding among other populations.

Table 1. Analyses of Outcome Variables by Abuse Type, One-way ANOVA

Dependent Variable	ANOVA *F*	Contrast (*t* statistic)					
		NA vs. CSA	NA vs. AA	NA vs. RV	CSA vs. AA	CSA vs. RV	AA vs. RV
Shame	1.568	-1.4292	-2.1146	-2.7684	-0.6854	-1.3392	-0.6538
Guilt	2.894*	-0.3750	-1.8438	-4.6078*	-1.4688	-4.2328	-2.7641
Poor Self-Esteem	0.974	0.2423	0.3045	1.7987	0.06250	1.5564	1.4939
Dissociation (TSC)	5.753***	-2.3958	-3.0521**	-3.3208***	-0.6563	-0.9250	-0.2687
Anxiety (TSC)	4.751**	-2.1875	-2.1562	-3.3958***	0.03125	-1.2083	-1.2396
Depression (TSC)	6.976***	-3.5000*	-3.3750*	-5.0375***	0.1250	-1.5375	-1.6625
Sexual Abuse Trauma Index (TSC)	9.513***	-3.1955**	-2.6149*	-4.7883***	0.5806	-1.5927	-2.1734
Sleep Disturbance (TSC)	8.252***	-2.5385*	-2.6837*	-4.0660***	-0.1452	-1.5275	-1.3824
Sexual Problems (TSC)	10.647***	-3.4184*	-4.0797**	-5.7143***	-0.6613	-2.2959	-1.6346
TSC—40 Total	9.275***	-13.6122*	-14.5185**	-22.1024***	-0.9063	-8.4902	-7.5839
Stigmatization (TRBQ)	3.158*	-0.096328	-0.3654	-0.4464	-0.2690	-0.3501	-0.081017
Betrayal (TRBQ)	0.736	0.0020856	-0.1450	-0.2022	-0.1478	-0.2051	-0.057250
Powerlessness (TRBQ)	2.732*	-0.2143	-0.3347	-0.5457	-0.1203	-0.3314	-0.2110
Traumatic Sexualization (TRBQ)	1.534	0.04948	-0.3465	-0.3237	-0.3960	-0.3731	0.02289
TRBQ Total	3.019*	-0.077775	-0.3220	-0.4042	-0.2442	-0.3265	-0.082248
Perceived Social Support from Friends – Childhood	7.271***	4.9552***	1.6639	4.3127***	-3.2913	-0.6426	2.6488
Perceived Social Support from Friends – Adulthood	1.272	0.03763	-0.4311	1.3998	-0.4688	1.3621	1.8309
Perceived Social Support from Family – Childhood	4.642**	3.9503*	2.4337	4.6347**	-1.5167	0.6843	2.2010
Perceived Social Support from Family – Adulthood	3.486*	1.3878	2.3878	3.8780**	1.0000	2.4902	1.4902

NA = Never Abused, CSA = Child Sexual Abuse, AA = Late Adolescent/Adulthood Abuse, RV = Revictimization

* $p < = 0.05$ ** $p <= 0.01$ *** $p < =0.001$

Table 2. Analysis of Outcome Variables by Abuse Type

Dependent Variable	ANOVA (CSA x AA)			
	Model	CSA	AA	CSA*AA
Shame	F = 1.568 p = .199	F = 0.964 p = 0.328	F = 2.650 p = 0.106	F = 0.134 p = 0.715
Guilt	F = 2.894 p = 0.037	F = 1.335 p = 0.250	F = 5.003 p = 0.027	F = 0.773 p = .0381
Poor Self-Esteem	F = 0.974 p = 0.406	F = 0.885 p = 0.348	F = 1.017 p = 0.315	F = 0.460 p = 0.499
Dissociation (TSC)	F = 5.753 p = 0.001	F = 3.729 p = 0.055	F = 8.307 p = 0.004	F = 2.376 p = 0.125
Anxiety (TSC)	F = 4.751 p = 0.003	F = 5.631 p = 0.019	F = 5.427 p = 0.021	F = 0.431 p = 0.513
Depression (TSC)	F = 6.976 p = 0.000	F = 8.294 p = 0.005	F = 7.510 p = 0.007	F = 1.051 p = 0.307
Sexual Abuse Trauma Index (TSC)	F = 9.513 p = 0.000	F = 13.599 p = 0.000	F = 8.352 p = 0.004	F = 0.493 p = 0.484
Sleep Disturbance (TSC)	F = 8.252 p = 0.000	F = 8.656 p = 0.004	F = 90985 p = 0.002	F = 0.753 p = 0.387
Sexual Problems (TSC)	F = 10.647 p = 0.000	F = 9.158 p = 0.003	F = 14.579 p = 0.000	F = 1.141 p = 0.287
TSC-40 Total	F = 9.275 p = 0.000	F = 9.736 p = 0.002	F = 11.472 p = 0.001	F = 0.787 p = 0.376
Stigmatization (TRBQ)	F = 3.158 p = 0.028	F = 0.452 p = 0.503	F = 7.364 p = 0.008	F = 0.003 p = 0.954
Betrayal (TRBQ)	F = 0.736 p = 0.533	F = 0.035 p = 0.852	F = 1.454 p = 0.231	F = 0.043 p = 0.836
Powerlessness (TRBQ)	F = 2.732 p = 0.048	F = 1.997 p = 0.161	F = 4.898 p = 0.029	F = 0.000 p = 0.991
Traumatic Sexualization (TRBQ)	F = 1.534 p = 0.210	F = 2.610 p = 0.063	F = 3.533 p = 0.063	F = 0.005 p = 0.945
TRBQ Total	F = 3.019 p = 0.033	F = 0.418 p = 0.520	F = 6.856 p = 0.010	F = 0.000 p = 0.986
Perceived Social Support from Friends – Childhood	F = 7.271 p = 0.000	F = 17.905 p = 0.000	F = 0.323 p = 0.571	F = 1.647 p = 0.201
Perceived Social Support from Friends – Adulthood	F = 1.272 p = 0.86	F = 1.532 p = 0.218	F = 0.380 p = 0.538	F = 1.411 p = 0.237
Perceived Social Support from Family – Childhood	F = 4.642 p = 0.004	F = 8.436 p = 0.004	F = 2.167 p = 0.143	F = 0.682 p = 0.410
Perceived Social Support from Family – Adulthood	F = 3.486 p = 0.017	F = 2.136 p = 0.146	F = 6.135 p = 0.014	F = 0.003 p = 0.959

Note. NA = Never Abused, CSA = Child Sexual Abuse, AA = Late Adolescent/Adulthood Abuse, RV = Revictimization.

Table 3. Childhood Abuse and Resilience-Related Factors

Factor	Variable	Loading
CSA severity (54%)	Number of perpetrators	.836
	Length of abuse (in months)	.814
	Presence of any violence (yes/no)	.747
	Presence of any threats (yes/no)	.717
	Total number of abuse incidents	.686
	Use of force during abuse (yes/no)	.681
	Invasiveness of abuse (9-pt scale)	.638
	Closeness of relationship to perpetrator	*
CSA-related support – Emotional (55%)	Receiving support after disclosure (3-pt scale)	.837
	Being believed about abuse (3-pt scale)	.725
	Not being blamed for abuse (3-pt scale)	.645
CSA-related support – Institutional (65%)	Was the offender prosecuted (yes/no)	.855
	Was the abuse reported to the police (yes/no)	.816
	Did the child receive medical treatment (yes/no)	.815
	Did the child receive therapy (yes/no)	.733
Family of origin dysfunction (44%)	Number of relatives who abused drugs	.767
	Number of relatives who abused alcohol	.757
	Family income (9-pt scale reversed to indicate poverty)	.652
	Childhood physical abuse (continuous variable)	.634
	Parental divorce (yes/no)	.480
Uncanny emotions (65%)	Shame (continuous variable)	.859
	Poor Self-esteem (continuous variable)	-.794
	Guilt (continuous variable)	.770
Risky partner choices	# of sexual experiences with strangers	.793
	# of times left a public place with a stranger	.792
	# of times accepted a date with a stranger	.587
	# of sexual partners	.446
	Age of consent	*
	# of abortions	*
	% of times birth control is used during sex	*
Young consent/Abortions	# of sexual experiences with strangers	-.756
	# of times left a public place with a stranger	.673
	# of times accepted a date with a stranger	.232
	# of sexual partners	*
	Age of consent	*
	# of abortions	*
	% of times birth control is used during sex	*

* Loading < 0.1

Table 4. Perceptions of Social Support: Factors and Loadings

Variable	Perceived Friend Support (36%)	Lack of Social Support (8%)	Family Affection (6%)	Amount of Socializing (5%)
Number of close friends – present (4-pt scale)	.772	-.231	.282	.404
Number of close friends – past (4-pt scale)	.708	-.415	.295	.461
Perceptions of Social Support Scale – Friends, Adulthood	.643	-.390	.243	.299
Perceptions of Social Support Scale – Family, Childhood	.453	-.932	.506	.398
Perceptions of Social Support Scale – Family, Adulthood	.361	-.839	.473	.352
Perceptions of Social Support Scale – Friends, Childhood	.578	-.603	.211	.439
Affection shown by mother (scaled score)	.270	-.423	.910	.355
Affection shown by father (scaled score)	.407	-.349	.698	.325
Amount of socializing family did during childhood (6-pt scale)	.331	-.255	.319	.803
Amount of socializing done currently (6-pt scale)	.290	-.247	.162	.491
Presence of supportive adults in childhood (yes/no)	.388	-.442	.185	.453
Presence of mentor in childhood (4-pt scale)	.345	-.130	.226	.381

Table 5. Discriminant Analyses Predicting Revictimization of CSA Group

Predictor	Wilk's Lambda	Canonical Correlation	Significance	% Correctly Classified
Severity	0.929	0.266	0.015	59.0%
Relationship to Perpetrator	0.986	0.119	0.292	
Uncanny Emotions	0.963	0.193	0.085	59.3%
Childhood Family Dysfunction	0.981	0.138	0.248	
Poverty	0.923	0.278	0.018	61.1%
Physical abuse	0.915	0.292	0.007	66.3%
Familial drug abuse	0.015	0.014	0.902	
Familial alcohol abuse	0.025	0.018	0.875	
Parental divorce				
Emotional Support	0.967	0.182	0.100	55.4%
Support	0.920	0.282	0.090	62.2%
Believe	0.991	0.097	0.551	
Blame (Lack of)	0.932	0.260	0.115	57.9%
Institutional Support	1.000	0.014	0.899	
Perceived Friend Support	0.999	0.029	0.797	
Lack of Support	0.995	0.071	0.524	
Family Affection	0.980	0.140	0.208	
Amount of Socialization	0.998	0.042	0.708	
Supportive Couple Relationship	0.991	0.097	0.517	
Stigmatization	0.924	0.275	0.015	64.1%
Betrayal	0.976	0.156	0.172	
Powerlessness	0.946	0.232	0.041	59.0%
Traumatic Sexualization	0.953	0.217	0.056	65.4%
TRBQ Total	0.922	0.279	0.013	62.8%
Dissociation	0.990	0.101	0.364	
TSC Total	0.970	0.174	0.116	57.8%
Risky partner choices	0.992	0.088	0.530	
Nunmber of sexual partners	0.935	0.255	0.024	62.0%
Sex with strangers	0.969	0.176	0.116	61.7%
Leave with strangers	0.979	0.094	0.201	
Dates with strangers	0.999	0.026	0.815	
Abortion/Consent	0.991	0.094	0.504	
Nunmber of Pregnancies	0.888	0.334	0.003	61%

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IMPLICATIONS OF CULTURALLY BASED UNDERSTANDINGS OF THE SELF FOR THE PSYCHOLOGICAL HEALTH OF CAUCASIAN AND ASIAN AMERICAN WOMEN

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In recent years clinical psychologists have been called upon to improve their "cultural competence" in order to better serve the needs of an increasingly diverse population. If they are to effectively address the psychological needs of such a diverse population, psychologists and other mental health workers must both learn about other cultures and think critically about their own dominant culture's definitions about what is "adaptive, healthy or 'normal'" (McGoldrick, 1998). Theories of the self, or the models used by therapists to understand how an "adaptive, healthy or 'normal,'" self behaves, thinks, and expresses emotions, often guide mental health professionals' work with their clients. Two widely discussed theories of the self have recently been translated into quantifiable constructs, which are designed to describe the development of psychopathology versus healthy functioning in adults. However, these constructs, differentiation of self (Bowen, 1978; Skowron & Friedlander, 1998), and silencing the self (Jack, 1991; Jack & Dill, 1992), have been empirically tested primarily with Caucasian American samples. Both of these theories deal with apparently Western ideas about what a "healthy" self looks like in relationships with others, and questions have been raised regarding the universality of these constructs as they apply to women and/or other ethnic groups. This project thus sought to explore the ability of differentiation of self and silencing the self to predict psychological distress and well-being in a community sample of Caucasian and Asian American adult women.

A related area of interest concerns the many fundamental differences in self-construals seen among individuals from Western cultures versus those from Eastern cultures. For people from any given culture, cultural definitions of the self constitute "unconscious assumptions" that individuals take for granted "as the way things are" and as "what everybody knows" (Landrine, 1992). In Western cultures (i.e., American and Western European cultures), the self is assumed to be independent, autonomous, and self-contained. The self is understood to possess a unique assortment of traits, motives, values, and abilities, and these internal attributes are assumed to direct the behavior of the self. Other selves and entities are assumed to exist and function independently of the self (Landrine, 1992; Markus & Kitayama, 1991). However, an alternative conception of the self has been thought to be predominant in Eastern cultures and even within minority groups in Western cultures (i.e., Black Americans, Asian Americans, and Caucasian American women) (Cross & Madson, 1997; Landrine, 1992; Markus & Kitayama, 1994). This type of self-construal, referred to as the interdependent self, is understood to exist within social interactions and contexts. Internal attributes exist, but are much less reliable and important. Personal characteristics and opinions must be controlled rather than expressed, and the voluntary control of these attributes is the mark of maturity in cultures valuing a more interdependent self (Markus & Kitayama, 1991). A number of studies have suggested that most individuals are not simply independent or interdependent, but rather that most people incorporate both independent and interdependent aspects within a sense of self (Kagitcibasi, 1994; Matsumoto, 1999; Singelis, 1994). This study thus further explored the nature of self-construals and their relationships to both cultural background and mental health.

Other variables relevant to Caucasian and Asian American adult female populations, such as level of acculturation and experiences of racial and gender discrimination, were also examined as predictors of distress and well-being. A comprehensive understanding of the interrelationships between all of the

above variables will not only advance the theoretical knowledge in this area, but should also provide mental health professionals with a more complete, integrative picture of the mental health of women from diverse ethnic and cultural backgrounds. This should result in mental health workers being able to establish interventions and treatment goals that are both culturally sensitive and appropriate to their increasingly diverse female clientele.

Participants

The participants in this study consisted of a total of 194 adult women over the age of 21, including 104 Caucasian women and 90 women who identified as Asian American or Bi-Multi-Racial with Asian American heritage. Participants were recruited from a variety of settings and using a variety of approaches. For example, some women heard about the study and requested questionnaires after hearing the investigator describe the research at a group meeting, while others were approached about the study through e-mail or directly through acquaintances. Approximately half of the sample was recruited from southwestern Ohio, with the remainder of the sample recruited nationally. A total of 413 questionnaires were distributed to potential participants and 206 were returned, resulting in a response rate of 49.88 percent. Twelve women were dropped from the current analyses due to incomplete data, being an outlier in terms of age, or because they were not Caucasian or Asian American.

The 104 Caucasian women participating in this study ranged in age from 23 to 62 years of age, with a mean of 39.75 years (*SD* = 10.23). Over 70 percent of the Caucasian women had completed at least a college degree, and close to 60 percent were working full-time outside the home. Fifty-five percent reported a household income of $80,001 or greater. Almost eighty-one percent of the Caucasian women were married, one percent was living with a partner, 10 percent were single, four percent were separated or divorced, and three percent were widowed. Finally, 72 percent of the Caucasian women had one or more children.

The 90 Asian American women who participated in this study ranged in age from 23 to 66, with a mean of 35.20 years (*SD* = 9.70). They represented a variety of Asian ethnicities, with 34 of these women identifying as Indian and 21 identifying as Chinese. Eleven of the women were Korean and twelve were Filipino. There were also three Japanese women, and one Thai and one Vietnamese woman in the Asian American group. Five of the 90 women identified themselves as Bi-Multi-Racial, including: two Korean American women, two Japanese American women, and one woman who described herself as Filipino/Chinese/Caucasian. An additional two women did not specify a particular Asian ethnicity. The majority of these women were foreign-born, with 78 percent listing their place of birth as outside the United States. Among the foreign-born Asian American women, the average age of entry into the U.S. was 17.72 years (*SD* = 10.75), and they had then lived in the U.S. for an average of 18.65 years (*SD* = 9.46). Among the U.S.-born women, 90 percent described themselves as second generation, five percent as third generation, and five percent as fourth generation. English was the first or native language of 41 percent of the Asian American sample.

In terms of marital status, almost 60 percent of the Asian American women were married, seven percent were living with a partner, 31 percent were single, three percent were divorced, and one percent was widowed. Fifty-one percent of the Asian American women had one or more children, and 47 percent reported a household income of $80,001 or greater. In terms of education, over 93 percent had completed at least a college degree, and 71 percent were working full-time outside the home.

As may be apparent from the above descriptive statistics, there were some significant demographic differences between the Caucasian and Asian American samples. For example, the Asian

American women in this sample were significantly younger, t (192) = -3.16, $p < .01$, more educated, t (192) = 4.15, $p < .001$, and less likely to be married than the Caucasian women, t (192) = -3.68, $p < .001$. Asian American women were also more likely to be working full-time, t (153) = 2.97, $p < .01$, and less likely to have children than the Caucasian women, t (192) = 3.07, $p < .01$. There were no significant differences in household income between the two groups, however.

Measures

Differentiation of Self Inventory (DSI; Skowron & Friedlander, 1998). The DSI is a 43-item, six-point scale which assesses Bowen's (1978) differentiation of self construct. There are four subscales of the DSI, including: Emotional Reactivity (the tendency to respond to situations with hypersensitivity, emotional flooding, and emotional lability); I Position (the ability to adhere to one's convictions and maintain a well-defined sense of self); Emotional Cutoff (the tendency to separate thoughts from feelings and to fear intimacy and engulfment in personal relationships); and Fusion with Others (the tendency to be overinvolved with and to overidentify with others, including one's parents). Validity for the scale has been established by demonstrating that low differentiation scores predict chronic anxiety, lower marital satisfaction, and greater overall psychological distress (Skowron & Friedlander, 1998).

Silencing the Self Scale (STSS; Jack, 1991; Jack & Dill, 1992). The STSS is a 31-item, five-point scale designed to assess the beliefs and thoughts that guide women's behavior and self-evaluation in intimate relationships. It has been particularly associated with depression in women. The scale contains four subscales, namely: Externalized Self-Perception (the extent to which a woman judges herself by standards set by her partner or the culture at large); Care as Self-Sacrifice (the extent to which a woman secures relationships by placing others' needs before her own); Silencing the Self (avoiding conflict and potential loss of the relationship by inhibiting self-expression); and Divided Self (the tendency for a woman to present herself as compliant so that she lives up to feminine role standards even if she feels angry and hostile inside).

Self-Construal Scale (SCS; Singelis, 1994). The Self-Construal Scale is a 24-item scale designed to measure two dimensions of self-image: the Independent self (emphasizing the internal attributes of a separate and unique self) and the Interdependent self (emphasizing social context, connectedness, and relationships). Four items on the scale used in the present study underwent a slight change in wording so that the items better applied to an adult, rather than a college student, sample.

Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn, Rickard-Figueroa, Lew, & Vigil, 1987). The SL-ASIA is a 26-item, multiple choice scale intended to reflect an orthogonal, multidimensional perspective on acculturation. It has been found to be significantly associated with place of upbringing, generational level, and self-ratings (Suinn et al., 1987). Five factors on the SL-ASIA have been identified, including: reading/writing/cultural preference; ethnic interaction; affinity for ethnic identity and pride; generational identity; and food preference (Suinn, Ahuna, & Khoo, 1992). SL-ASIA scores range from 1.00 (low acculturation/high Asian identity) to 5.00 (high acculturation/high Western identity). Scores of 3.00 may be interpreted to represent the "bicultural" participant. Five supplemental items provide more explicitly orthogonal measures of acculturation, allowing respondents to be classified according to their Asian or Western values, behavioral competencies, and self-identity.

Racial and Gender Discrimination (Krieger, 1990). Four items assessing racial and gender discrimination were used in the present study. Two of these closed-ended questions, written by Krieger (1990), asked about specific situations in which the respondent may have experienced either race or gender discrimination (e.g., at work or while getting medical care). Each "yes" response received a score

of "one," with maximum scores for the race and gender discrimination items being six and five, respectively. The other two questions assessed whether participants tend to internalize or externalize their responses to gender- or race-biased treatment. For example, one question asked whether respondents "accept it as a fact of life" or "try to do something about it" if they feel they have been treated unfairly. A second question asked if respondents "talk to other people about it" or "keep it to [themselves]" if treated unfairly.

Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). The CES-D is a 20-item, four-point scale designed to assess the frequency of depressive symptoms that respondents may have experienced during the past week.

Social Avoidance and Distress Scale (SAD; Watson & Friend, 1969). The SAD scale is a measure of respondents' tendencies to avoid social situations and to feel anxious while in them. It contains 28 items, with fourteen items assessing social avoidance and fourteen measuring social anxiety. The total SAD score has most often been used in research (Leary, 1991), and a five-point Likert format was used in the present study.

Fear of Negative Evaluation Scale (FNE; Watson & Friend, 1969). The FNE contains 30 true-false items designed to assess the degree of apprehension people experience at the prospect of being negatively evaluated by others. Leary (1983) has developed a brief, 12-item version which correlates .96 with the original FNE scale, and this brief version was used in the present study.

Psychological Well-Being Scale (Ryff, 1989). The Psychological Well-Being Scale was developed as a theoretically driven measure which assesses six dimensions of well-being, including: Autonomy, Environmental Mastery, Personal Growth, Positive Relations with Others, Purpose in Life, and Self-Acceptance. Ryff (1989) describes an individual who is high on Autonomy as someone who is independent and “self-determining,” evaluates himself or herself by personal standards, and is able “to resist social pressures to think and act in certain ways.” High levels of Environmental Mastery are indicative of competence in managing and controlling a “complex array of external activities,” the ability to choose or make a context suitable to personal values and needs, and the ability to make effective use of opportunities. An individual who is high on Personal Growth views him or herself as continuing to develop and grow, while seeing improvement over time. Such a person is open to experiences and changes in ways that “reflect more self-knowledge and effectiveness.” As the name of the scale suggests, an individual high on Positive Relations with Others has “warm, satisfying, trusting relationships,” is empathic, affectionate, and capable of intimacy. Such an individual is also concerned about others and understands the “give and take” process of relationships. Those high in Purpose in Life possess goals and a sense of directedness in life. They feel a sense of meaning attached to both their present and past life and have beliefs that provide them with a sense of purpose in life. Finally, an individual high in Self-Acceptance has a positive attitude about the self, can both acknowledge and accept the good, bad, and multiple aspects of the self, and feels positively about his or her past life. Each dimension was operationalized using a 20-item, six-point scale; however, several shortened versions of the scales have also been developed.

The present study used a brief Psychological Well-Being Scale which contains nine scale items per dimension for a total of fifty-four items. Reliability and validity information is not yet available on this particular version of the Psychological Well-Being Scale. However, shorter three item per dimension scales have been shown to correlate from .70 to .89 with the full-length scales (Ryff & Keyes, 1995). Cronbach’s alphas obtained in the present sample of Caucasian women were as follows: .82 for Autonomy, .85 for Environmental Mastery, .81 for Personal Growth, .83 for Positive Relations with

Others, .80 for Purpose in Life, and .89 for Self-Acceptance. Cronbach's alphas for each scale within the Asian American sample included .80 for Autonomy, .77 for Environmental Mastery, .76 for Personal Growth, .78 for Positive Relations with Others, .68 for Purpose in Life, and .84 for Self-Acceptance.

Demographic Questionnaire. The demographic questionnaire was used to obtain information regarding participant's age, ethnicity, native language, age at entry to the U.S., education, income, marital status, religious orientation, work status, and number of children.

Procedure. Each participant received a questionnaire packet that included a cover letter, two questionnaires, a postcard, and a stamped, addressed envelope to be used in returning the questionnaires to the investigator. The cover letter described the purpose of the study and the procedures which participants should follow, and also provided information about how to contact the investigators with any questions or concerns about the study. The first questionnaire consisted of the demographic questionnaire, the DSI, the STSS, the SCS, racial and gender discrimination items, the CES-D, the FNE, the SAD, and the Psychological Well-Being scales. The second questionnaire consisted of the SL-ASIA, which participants were instructed to complete if they identified as Asian/Pacific Islander, Bi-Multi-Racial with Asian/Pacific Islander heritage, or as Other with Asian/Pacific Islander heritage. Return of the completed questionnaire indicated participants' informed consent and participants were informed that all responses to the questionnaires would remain anonymous. The postcard included in each packet was used for compensation purposes, as participants were offered $10 gift certificates or organizational donations for completing and returning study questionnaires.

Results

Differences Between Caucasian and Asian American Women. *T*-tests revealed no significant differences between Caucasian and Asian American women in their levels of depression, anxiety, or overall psychological well-being, although there was a trend for Asian American women to be more self-accepting than Caucasian women, t (192) = 1.93, $p < .10$. On the self-related measures, Asian American women were significantly more interdependent, t (191) = 3.73, $p < .001$, engaged in significantly more STSS Care as Self-Sacrifice, t (190) = 3.00, $p < .01$, and tended to report more DSI Fusion with Others than Caucasian women, t (189) = -1.91, $p < .10$.

Differences Between Asian Ethnic Groups. Although most analyses were conducted on the entire Asian American group, there were sufficient numbers of Chinese American (n = 21) and Indian American women (n = 34) in the sample to allow examination of these groups separately. The remaining Asian American women were combined into an "other Asian American group" (e.g., Korean, Japanese, Filipino, Vietnamese, and Thai American) (n = 33), so that general patterns concerning these three groups could be studied. Analysis of variance revealed no major demographic differences between the various Asian ethnic groups, although there were trends for the Indian American women to be older, F (2, 87) = 2.83, $p < .10$, and have higher household incomes than the Chinese American women, F (2, 84) = 2.41, $p < .10$. Indian American women were also more likely to have children, F (2, 87) = 4.23, $p < .05$. Analysis of covariance controlling for age and income showed that Indian American women were significantly less Western acculturated than women from the remaining Asian ethnic groups, F (4, 81) = 10.01, $p < .001$, and they reported more Asian values, F (4, 81) = 3.89, $p = .01$. In terms of the self-related variables, Indian American women reported more interdependence, F (4, 81) = 2.56, $p < .05$, and also more DSI Fusion with Others, F (4, 83) = 3.67, $p < .01$. Finally, both Indian American and Chinese American women reported more STSS Care as Self-Sacrifice, F (4, 81) = 3.99, $p < .01$, and STSS Silencing the Self than Other Asian American women, F (4, 81) = 3.65, $p < .01$.

Differentiation of Self Inventory. Hierarchical regression analyses showed that greater differentiation predicted lower CES-D scores, $\beta = -0.58$, $p < .001$, lower SAD scores, $\beta = -0.32$, $p < .01$, lower FNE scores, $\beta = -0.68$, $p < .001$, and increased well-being across all six dimensions for Caucasian women (i.e., Autonomy, $\beta = 0.54$, $p < .001$, Environmental Mastery, $\beta = 0.71$, $p < .001$, Personal Growth, $\beta = 0.46$, $p < .001$, Positive Relations with Others, $\beta = 0.38$, $p < .01$, Purpose in Life, $\beta = 0.45$, $p < .001$, and Self-Acceptance, $\beta = 0.51$, $p < .001$). I Position, Emotional Cutoff, and Emotional Reactivity were the subscales that emerged as the most important predictors of distress and well being for Caucasian women. For Asian American women, greater differentiation predicted lower CES-D scores, $\beta = -0.44$, $p < .001$, lower FNE, $\beta = -0.43$, $p < .001$, and SAD scores, $\beta = -0.23$, $p < .05$, and increased well-being on four of the six dimensions (i.e., Autonomy, $\beta = 0.38$, $p < .001$, Environmental Mastery, $\beta = 0.46$, $p < 001$, Positive Relations with Others, $\beta = 0.28$, $p < .05$, and Self-Acceptance, $\beta = 0.40$, $p < .001$). I Position and Emotional Cutoff were the strongest subscale predictors of distress and well being for the Asian American women.

Silencing the Self Scale. Hierarchical regression analyses revealed that greater levels of silencing the self predicted higher SAD scores, $\beta = 0.25$, $p < .05$, and was included in the final models which predicted lower levels of four types of well-being for Caucasian women (i.e., Autonomy, $\beta = -0.20$, $p < .05$, Positive Relations with Others, $\beta = -0.31$, $p < .05$, Purpose in Life, $\beta = -0.29$, *ns*, and Self-Acceptance, $\beta = -0.33$, $p < .001$). Higher STSS scores also predicted increased depression, $\beta = 0.25$, $p < .05$, and lower levels of all six dimensions of well-being for Asian American women (i.e., Autonomy, $\beta = -0.32$, $p < .001$, Environmental Mastery, $\beta = -0.43$, $p < .001$, Personal Growth, $\beta = -0.25$, $p < .05$, Positive Relations with Others, $\beta = -0.36$, $p < .01$, Purpose in Life, $\beta = -0.47$, $p < .001$, and Self-Acceptance, $\beta = -0.22$, $p < .05$). Regression analyses involving STSS subscales indicated that Externalized Self-Perception was the most important subscale for predicting distress and well being for both groups, and that Divided Self was also important in predicting well being. It was also found that Care as Self-Sacrifice scores were higher for Asian American women than Caucasian women, but that these scores were not correlated with depression for the Asian American group.

Self-Construal. Results supported a coexistence model, where reported levels of independence and interdependence were uncorrelated within both groups of women. Caucasian and Asian American women reported similar levels of independence, while Asian American women reported more interdependence than Caucasian women, $t\ (191) = 3.73$, $p < .001$. Hierarchical regression analyses indicated that independence and interdependence tended to predict to different outcomes, but both were important to psychological health, regardless of ethnicity.

Acculturation. On average, the Asian American sample scored in the "bicultural" range on the SL-ASIA. Asian American women also reported that they generally felt they "fit" equally well when with other Asians and with non-Asian Westerners. Hierarchical regression analyses showed that being less Western acculturated contributed to the final model predicting greater social avoidance and distress. In contrast, high levels of Western acculturation were included in the final models predicting increased well being on two dimensions (i.e., Personal Growth, $\beta = 0.16$, *ns*, and Purpose in Life, $\beta = 0.18$, $p < .05$).

Discrimination. Although Caucasian and Asian American women reported similar levels of gender discrimination, Asian American women reported significantly more racial discrimination experiences compared to Caucasian women, $t\ (191) = 8.01$, $p < .001$. For example, 40 percent of Asian American women felt they had been discriminated against at work, 33 percent felt they had been discriminated against in school, and 17 percent felt they had been discriminated against by the police or courts. Interestingly, gender discrimination did not predict psychological distress or well being for

Caucasian or Asian American women. However, hierarchical regression analyses showed that racial discrimination was included in the final models which predicted reduced levels of three types of psychological well-being (i.e., Environmental Mastery, $\beta = -0.10$, *ns*, Positive Relations with Others, $\beta = -0.21$, $p < .05$, and Self-Acceptance, $\beta = -0.13$, *ns*) for Asian American women. Type of response to racial discrimination was uncorrelated with outcome for Asian American women.

Discussion

Many of the findings in this study have important implications for both future research and clinical practice with Caucasian and Asian American women. While past studies have found that Asian Americans, and particularly foreign-born Asian Americans, tend to have poorer mental health than Caucasians, this was not the case in the present study. The Caucasian and Asian American women generally reported equivalent levels of depression, social anxiety, and psychological well-being. This finding could be attributed to a number of factors; however, it may simply reflect the rather educated, financially secure, professional, and bi-cultural nature of the Asian American women who participated in this study. This sample may thus be quite different from the samples found in many other studies, which have focused on college students or more recent urban immigrant communities. Although the results may not be generalizable to the entire Asian American population, they may provide insight into a segment of the population that has not been as well represented in the psychological literature.

The Asian American women in this study also resembled the Caucasian women on many of the self-related variables. They had similar levels of overall differentiation of the self and silencing the self, although the underlying features or composition of these indicators of self-functioning differed according to ethnicity. These findings thus support the cross-cultural relevance of these two constructs, but simultaneously point to areas in which clinicians should be sensitive to cultural differences. For example, Asian American women had higher STSS Care as Self-Sacrifice scores than Caucasian women, even though their STSS total scores were equivalent. While Care as Self-Sacrifice was strongly positively correlated with depression for Caucasian women, it was not at all related to depression for Asian American women. An area of culturally related self-functioning that would thus be important to address for a Caucasian women would not be helpful to an Asian American woman in alleviating depression. The fact that differences between the various Asian ethnic groups were found on self-related variables also suggests that therapists should not assume particular values or self-construals based on a client's general status as an Asian American. Indian American women in particular emerged as different from the other Asian American women in terms of self-construal, acculturation, values, and other areas of self-functioning, though they were also more likely to have entered the U.S. as adults compared to women of other Asian ethnicities. Overall, however, it appears that more research addressing predictors of a healthy versus a distressed self within this group is thus needed if clinicians are to work with Indian American women in a culturally sensitive manner.

Regarding culturally based self-construals, the present study found that Asian American women reported similar levels of independence and higher levels of interdependence than Caucasian women. Increased ability to take the "I position," less self-silencing, and less emotional cutoff, in addition to higher levels of both types of self-construal, all contributed in turn to the prediction of reduced distress and increased well-being for Asian American women. These findings demonstrate the need for clinicians to appropriately balance support of an Asian American woman's needs and goals in therapy with the needs and goals of her family and community. Encouraging an Asian American woman to pursue her own dreams without regard to the desires or needs of those around her risks cutting her off from the very connections that are essential to her well-being and basic self-construal.

This study also has implications for therapy with Caucasian women. Increased differentiation of the self was the best predictor of both reduced distress and increased well-being for these women. It seems particularly important for Caucasian women to have a clearly defined sense of self that enables them to be able to adhere to their own convictions and feel calm under stress. Helping a client develop skills such as stress-management, resisting social pressure, and being able to say "no" to others may therefore have the biggest impact on reducing depression and anxiety symptoms and creating lasting changes in psychological well-being. It also seemed important for Caucasian women to feel less emotional and sensitive in their dealing with others and to more willingly approach close relationships and the sharing of feelings with important others.

Engaging in less self-silencing should also improve mental health for Caucasian women. Having an externalized self-perception seemed to be the aspect of self-silencing that was most detrimental to these women (and also to Asian American women). This aspect of self-silencing reflects women's tendency to put other's thoughts and feelings before their own and to judge themselves by how others and society at large must see them. Thus, many women felt they did not live up to the standards they set for themselves in the following areas: "getting enough done;" spending enough time with husbands and children; being confident/independent/strong; professional accomplishment; income; housekeeping; and weight/nutrition/exercise/self-care. Since most women listed concerns in several of the above areas, therapists could improve women's mental health by helping them to move away from society's expectations for what they "should" be able to do towards more prioritized and reasonable internal standards.

This study also indicated that the two types of self-construal were important for promoting different aspects of well-being for both Caucasian and Asian American women. In most cases, having higher levels of both independent and interdependent self-construal was associated with better mental health. However, regardless of the level of self-construal, therapists who are aware of their client's self-construals could use discussion of these basic values as a starting point for increasing self-awareness and change. For example, increased ability to take the "I position" seems to promote better mental health for women of both ethnicities. A therapist working to improve a client's abilities in this area, though, might want to be aware of how this fits with the client's self-construal. That is, the very independently-oriented client may be working to assert herself and become less sensitive to criticism in a context where she is willing to end relationships that do not support her in this effort. In contrast, a client who is also very interdependent may need to develop these skills in a context where only minimal relational disruptions can be tolerated.

This study also raised concerns about the structure and/or validity of some of the measures. For example, the DSI subscale Fusion with Others obtained low Cronbach's alpha coefficients within both the Caucasian and Asian American samples (.43 and .49, respectively). While predicted and meaningful differences were found between ethnic groups on Fusion with Others (e.g., Asian American women were more fused with others than Caucasian women), the subscale tended to otherwise operate such that increased differentiation on this dimension actually predicted increased distress or reduced well-being. These findings are not consistent with the intended meaning of the subscale, and seem to suggest, as Tuason and Friedlander (2000) noted, that the subscale may be measuring "normal self-in-relation experiences rather than the unhealthy overinvolvement with others that characterizes poor differentiation." Future research should further explore this possibility.

Overall, this study indicates that some of our clinical theories of the self may indeed successfully predict the psychological distress and well-being of women from both Eastern and Western cultures. Nevertheless, there are subtle but important differences in the composition of these self-related constructs

for Caucasian and Asian American women. Future research should further explore these self-related constructs and their implications for relational functioning and a wider range of clinical outcomes as they apply to both women and men from a variety of cultural backgrounds. A more complete understanding of the ways in which culturally based self understandings influence everyday thoughts, behaviors, and emotions will help mental health professionals provide assessments and interventions that are more sensitive to both the gender and ethnicity of their increasingly diverse clientele.

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CONSUMER STAFF IN MENTAL HEALTH AGENCIES: COPING WITH THE DUAL ROLES OF RECIPIENT AND PROVIDER

Neighboring: Mental Health Services

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During the past twenty years there has been a major change in the structuring of helping relationships in the mental health field as consumers have increased their influence in the provision and planning of service. Consumers have advanced into provider positions once occupied solely by professionals, and provide support, skill development and clinical care (Moxley & Mowbray, 1997).

Many different types of mental health programs have utilized mental health consumers as service providers (Felton et al., 1995). Consumers have provided case management services (Felton, et al., 1995; Manning & Suire, 1996; Paulson et al., 1999; Sherman & Porter, 1991; Simon, Morse, Speier & Osofsky, 1993; Solomon, 1988), assistance in supported housing programs (Besio & Mahler, 1993), assistance as peer counselors on inpatient psychiatric units (McGill & Patterson, 1990) and in vocational programs (Evans & Livneh, 1982), and other types of staffing in mental health programs.

Research about consumer providers is at a developmental phase. Most research (Mowbray, Chamberlain, Jennings & Reed, 1988; Sherman & Porter, 1991) has focused on description of the consumer provider positions. Some recent research, however, has focused on the consumer provider role (Mowbray et al., 1996), the characteristics and effectiveness of the consumer provider in comparison with non-consumer providers (Dixon, Hackman & Lehman, 1997; Paulson et al., 1999; Solomon & Draine, 1994, 1995 & 1996), and the attitudes of non-consumer staff towards consumer providers (Cook, Jonikas & Razzano, 1995: Dixon et al., 1997).

Some research has more closely examined the working environment of consumer providers. In their study, Manning and Suire (1996) conducted a qualitative research project with 16 consumer case management aides to identify factors that had impacted on their employment. Two of the factors that were described were the quality of the orientation to the job, and support in the work situation, including support from other consumer providers and the scheduling of regular supervision time. Other factors were clear expectation about job role, the empowerment that resulted from the job, the situation of experiencing the stigmatizing behavior by colleagues who did not have mental illness, and the agency policies regarding salary, benefits and job security.

There has been some research with consumers employed outside the mental health field that has focused on coping strategies. Alverson and colleagues (1995) conducted an ethnographic study with 13 consumers as they entered a competitive employment situation. The coping strategies that the participants reported were applied to both the challenge of coping with their work and the challenge of coping with their mental illness. Six strategies were identified. These were keeping a positive outlook, avoiding substance abuse, using a diverse support network, using medications strategically, avoiding relapse of illness and overcoming illness and stigma on the job. One of the important coping strategies for consumers was to act as independent decision-makers regarding their treatment and rehabilitation, for example by self-regulation of medication. These coping strategies were utilized rigorously to maintain employment, as no participant in the study reported that the workplace gave them any special consideration (Alverson et al., 1995).

Unlike consumers who do not work in the mental health field, consumer providers in mental health are in the unique employment situation of being both a recipient of mental health service and a provider of mental health service. This led to the research question for this study of "What coping strategies do consumer providers utilize to manage their dual roles of provider and recipient in the mental health system?" The researcher was interested in both the external factors (formal and informal networks of support) some of which had been identified by Manning and Suire (1996), and the personal factors (attitudes, cognitions, behaviors, practices) similar to the focus in the study by Alverson and colleagues (1996).

Since it has been already identified that consumer providers often have to cope with obstacles as they try to manage their job positions (Mowbray et al., 1996) a second research question was "What supports, including supports in the mental health system, could enhance the coping strategies of consumer providers?"

Overview of Methodology

This research project has the objective of adding to the knowledge and theory about the personal coping strategies and the environmental supports that assist consumer providers in their employment in the mental health field. A qualitative research methodology was utilized in order to focus on the subjective experiences of the consumer providers. It was expected that personal interviews would allow for an in-depth exploratory investigation of their strengths and coping strategies, so that specific coping skills could be teased out of the information that was collected and identified. This data could then be used to construct questionnaires for future studies.

Three mental health agencies in Lake and Cuyahoga Counties agreed to support this research by allowing access to their staff members through a letter that each staff member received, requesting volunteers for the study. One agency was a consumer-run organization and the other two were traditional agencies with some consumer-run programming. Fourteen prospective volunteers contacted this researcher; one of these was unable to follow through, and one of the volunteers was not a consumer provider. The criteria to participate in the research were that the person had to have a major mental illness, had to currently be or in the past have been receiving mental health services, had to be a provider or administrator of mental health services, and had to be willing to be interviewed two times. Prospective volunteers were also requested to attend an optional focus group.

The twelve participants ranged in age from 30 to 71 years of age with eight out of twelve participants being in their middle age adult years, from 35 to 54 years of age. Nine of the participants were female and three were male; ten were Caucasian, one was African-American, and one was other (fifth generation American). Educational achievement ranged from high school/GED to graduate school with two having a master's degree and two a bachelor's degree. Four others had completed some college course work and two had associate's degrees. Nine of the twelve participants were either single or divorced, and three were married. Only one of the twelve participants did not live in their own home or apartment.

Most of the participants reported that their diagnosis was related to the affective disorders such as bi-polar II, major depression, or anxiety disorders. The other diagnoses reported were schizophrenia, post traumatic stress disorder (PTSD), and dissociative identity disorder (DID). One participant was in the midst of a change in diagnosis. Five of the 12 participants reported multiple diagnoses such as depression and anxiety combined with PTSD or bi-polar disorder. Ten of the 12 participants had been hospitalized with four of the 10 reporting multiple hospitalizations.

In regard to their job positions, four of the participants were supervisors, program directors or coordinators of peer support, housing or vocational programs. Four of the other participants held staff positions in vocational rehabilitation; three had positions in peer support or community support programs, and one had a position as administrative support staff. This group of providers has shown stability in their employment situation. The participants had been in their job positions from four months to 11 years, with one-half of the participants in their positions for four years or longer. Two of the 12 had been in their positions long term--10 years or longer.

There was a wide variety of job duties that were performed by the various respondents. In the area of vocational rehabilitation, the various duties included job development, job placement, job coaching, supervision, and administration, in addition to volunteer and employment support and training, and involvement in a consumer business. In relation to peer support, respondents facilitated or co-facilitated support groups, activity/interest/socialization groups, education groups, and treatment groups. They also provided peer education, taught daily living skills, and provided telephone support or housing support. In addition, some of the respondents conducted intakes and assessments and provided information and referral, counseling, supervision, and community education. A few of the respondents were also involved in public relations, program certification, accounting and other administrative functions. All of the respondents had responsibility for various kinds of documentation.

The researcher met with each of the twelve participants for a semi-structured interview that lasted from 45 minutes to one and one-half hours. Ten of the 12 also were interviewed for a second time, from 10 months to 15 months after the first interview. Two of the participants had left their positions in the mental health agencies at the time of the second contact; one was working in another field and the other one was looking for another position.

Each of the 12 consumer providers was interviewed in the setting of their choice--the researcher's office, the participant's work or home setting, or the public library. The semi-structured interview was guided by an interview guide that was based upon previous research, and a literature review. All of the interviews were audiotaped to be transcribed, coded and analyzed.

The questions in the interview guide centered on the dual aspect of the consumer provider role by asking the participant to define the dual roles of recipient and provider and the experiences of these dual roles. Other questions asked the participant about the nature of the support or the lack of support that was received from various personal or professional contacts and how the participant coped with any area of lack of support. The participants were also asked about any accommodations that were made by their employers and how these impacted on their coping with their dual roles.

Two focus groups were also conducted, one in Lake County and one in Cuyahoga County. One group had four participants and the other focus group had three participants. One group was conducted at a library and the other one was held at the researcher's office. The purpose of the focus group was to obtain a broader perspective of the consumer provider role, specifically in relation to the mental health system.

Individual interviews were also held with the Executive Director or Chief Executive Officer of each of the supporting agencies to obtain information about the agency, and staffing at the agency.

Findings and Discussion

The coping skills that were mainly used by the consumer providers to cope with the present job position included the attitude of having confidence in one's ability to do the work, and the practice of utilizing one's strengths and resources, including social support. Being prepared by anticipating situations was a cognitive coping skill that was used by some consumer providers to succeed in their job positions. Moreover, informing oneself and asking questions were also stated by a few consumer staff to be helpful to them. Being realistic and pragmatic, keeping situations in perspective and learning how to observe and listen were other methods utilized by some of the respondents to cope with new situations in work. Focusing on one's accomplishments and one's service to others were also methods that were utilized by consumer providers to manage in their positions. The behavior of advocating for oneself was another coping skill that was cited.

Several of the consumer providers stated that when they were in a situation that caused stress, they measured their reaction, and tried not to overreact. Sometimes they would think through the situation and problem-solve, or put the situation in perspective. Another method that was helpful to cope with stress was to utilize holistic or self-help strategies. A few of the respondents used methods of relaxation such as meditation, visualization, yoga, soothing music or simply taking a deep breath.

The respondents mentioned a variety of other methods to cope with stress in their personal lives or at work. Some of the strategies included focusing on something pleasant, or the satisfaction of the work with clients. These coping methods also included avoidance of stressful situations, withdrawal from situations, using rehearsal or anticipation, setting boundaries, and advocating for oneself. A few of the respondents had had an increase in symptoms from their illness during the previous year and went through medication adjustment to stabilize the illness and help their stress level. Some respondents were able to maintain their work schedule, as one consumer staff stated, "... I really am very proud to say that during that period, I didn't have to take off work. I could have, but I really thought and what I did was I told people at work upfront..."

The role of provider has had a great impact on how this group of consumer providers educates themselves and makes decisions about their own treatment for mental illness. A few of the respondents stated that they became more active and assertive regarding their own treatment. One consumer provider stated: "I think working in mental health has... I've always been active in my own treatment. It's made me even more so that I developed my own treatment plan. And it's made me more aware of myself and what my red flags are. It helped me learn to take care of myself."

The coping strategies that were described by the consumer providers in this research were grouped together into categories of personal factors (attitudes, cognition, behavior and practices) and the external factors (formal and informal supports) that were useful in helping them to cope with their dual roles of recipients of mental health service and providers of mental health service. Table 1 presents the attitudes, cognitions, behaviors and external supports that were identified by the respondents.

The coping strategies that were identified by the consumer providers in this study include five of the six coping strategies that were identified by Alverson et al. (1995). The factors that were noted in both studies are keeping a positive outlook, using a diverse support network, using medications strategically, overcoming stigma, and self-monitoring to avoid relapse. The one factor that was not listed in this study was avoiding substance abuse, and that was because most of the respondents in the present study denied any problem with substance abuse. However, the one subject who said that she was in recovery from alcoholism stated that being in recovery helped her maintain her provider position.

The challenges to consumer providers that were raised in the study by Carlson et al. (2001), which were dual relationships, role conflict, and confidentiality were also mentioned in this present study. Some of the ways that consumer providers said that they coped with issues of dual relationships and confidentiality were maintaining professionalism, avoiding compromising situations, and maintaining confidentiality. A few of the respondents said that they coped with role conflict by working at maintaining a balance between their two roles. This was a difficult situation, as one respondent said it was "like walking a tight rope." The challenge was made more difficult when a few consumer providers entered positions that were unstructured with unclear job descriptions. They rose to the challenge to define limits for themselves, using their initiative and freedom to create their positions.

Table 1. Coping Methods of Consumer Providers

Attitudes	**External Supports**
• self-image as a role model • sense of purpose • sense of altruism • confidence and pride in oneself • willingness to learn • willingness to engage in personal growth • optimistic attitude • motivation • self-identification as part of staff • spirituality • maintenance of balance • sense of professionalism	• accessing supervisor • using time flexibility • attending educational workshops, conferences • seeking support from peers, friends, family • accessing administrator • accessing psychiatrist/therapist • using self-help groups • following treatment plan • advocating in the system • attending orientation, training, in-service
Cognition	**Behaviors**
• problem-solving methods • prioritization of problems • partialization of problems • acceptance of one's own limits/boundaries • acceptance of others' limitations • positive thinking • maintenance of perspective on situations • focus on one's purpose • rationalization • depersonalization • discretion in self-disclosure • anticipation/preparation/rehearsal • thinking that is realistic, pragmatic • focus on one's accomplishments	• maintaining balance • setting limits in interactions with others • pacing oneself • setting boundaries regarding one's roles • respecting confidentiality • practicing self-care/self-help • educating/informing oneself • engaging in interests • seeking support from others • using observation or listening skills • accepting praise • complimenting oneself • sharing experiences to help others • using humor • being assertive about one's needs • advocating for oneself • giving self break or quiet time • using avoidance • using withdrawal • being active in care of one's illness

Some of the consumer providers had the benefit of a comprehensive orientation to their job, whereas others had no orientation. A few of the respondents had attended an orientation specific to the needs of consumer providers which they found helpful, whereas another respondent said that the BRIDGES training was useful for his job.

In the report by Mancuso (1997) there is a discussion of the importance of the supervisory relationship for the success of consumer providers. The respondents in this study also stressed how critical it was to have a supervisor who was available, accessible, flexible, understanding, and encouraging. Some of the respondents wanted guidance and goal setting from the supervisor, whereas others appreciated being given freedom, and responsibility.

The other important coping strategy for consumer providers was to have time flexibility in their jobs, whether this meant reduced work hours, a midweek day off, or a break during the day, or time to attend to doctors' appointments. In the study by Alverson and colleagues (1995) the study subjects reported that they received no special accommodations. However, the respondents in the present study expected some accommodation in the mental health agencies in which they worked. In the study by Mowbray and colleagues (1996) of consumer providers, the peer support specialists (PPS) also stated that they needed to take a respite. Moreover, like the present study subjects, PSS's said that they also needed to know their limits, and recognize when they could not perform a job.

Previous research that has examined the perception of family caregivers about the work that was performed by consumer providers reported that family members were satisfied with the service delivery (Solomon & Draine, 1996). In the present study, respondents also reported that family caregivers were generally appreciative of their efforts on behalf of the ill family members.

In regard to the attitudes of non-consumer providers towards consumer providers, previous research has indicated that this varies (Dixon et al., 1997; Mowbray et al., 1997). In the present study the consumer staff also reported varying attitudes toward them by the non-consumer staff, from being accepted as an equal part of the staff to being seen as a token.

There does not seem to be much attention given in the previous research on consumer providers to the importance of family and friends as supports for consumer staff to maintain themselves in their jobs. However, most of the respondents in this study had strong support from their families, which many saw as their major source of support. The support from friends was also fairly strong for most of the sample. Moreover, it was the support from friends that was one of the ways that respondents used to maintain a necessary balance in their lives. Some of the consumer providers had not self-disclosed to their friends about their illness, and, thus, their time with their friends was a break from being overwhelmed with the issues of mental health in their personal and professional roles. Other consumers sought support from support groups.

In regard to their relationship with consumers, almost all of the respondents said that it was this factor that was the major motivation for being in a provider position in mental health. They saw themselves as role models and were richly rewarded when they saw the progress of consumers. For this group of consumer providers, the provider role had a major impact on their lives. As one consumer said, "it changed my life." They grew personally, and professionally, and were able to have an impact on the lives of others.

During the focus groups, when the consumer providers were asked about the supports and accommodations that they would like to see available to them in the mental health system to assist them

in their dual roles, there were several themes that were articulated. Consumer staff wanted to see more opportunities being made available to them concerning job positions and more support for furthering their education so that they could advance within the mental health system. They wanted to see a recognition of the value of their life experiences, and that people without degrees could be role models. They also said they would like to see job positions that paid a living wage.

The focus groups had a lot of discussion about the stigma that still exists in the community regarding mental illness, and participants said that there is much stigma within the mental health system itself. They recommended increased education about mental illness and the consumer provider perspective to increase the understanding and empathy amongst their co-workers; in her report Mancuso (1997) presents an outline of an orientation for employees to mental health issues and the role of consumer providers. Another suggestion was to promote books written by consumers about their experiences to increase understanding. The respondents in the research also wanted to see more involvement of consumers in evaluation of service delivery systems in mental health.

To support consumer providers in the system it was suggested that more self-help groups needed to be available and accessible in more areas. Another suggestion was that agencies should coordinate their resources and perhaps create a mentoring or buddy system for consumer providers.

Since this is an ethnographic study, one cannot generalize the results. However, it is hoped that in the future researchers can use some of the variables to design questionnaires concerning coping strategies for consumer providers. Meanwhile, the results may be helpful to consumer providers, their supervisors and employers in providing examples of coping strategies that have been helpful to a group of consumer staff.

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EFFECTIVENESS OF DEPRESSION SCREENING, REFERRAL, AND TREATMENT FOR INDIGENT CLINIC OUTPATIENTS

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A screening instrument for depression can be accurate and practical and appears to be required in a primary care setting, because of under-recognition of depression especially among patients with lower socio-economic status (Broadhead et al., 1995; Ford, 1994; Goldberg & Bridges, 1986; Linn & Yeager,1980; Magruder-Habib, Zung & Feussner, 1990; Regier et al., 1993; Rosenthal et al., 1987; Sliman et al., 1992; Spitzer et al., 1994; VonKorff, Katon & Lin 1990). The high prevalence of patients with behavioral health problems in the primary care setting, these patients' lower quality of life (than even patients with severe physical health problems), the current ability to relieve their suffering, their greater use health care services (both inpatient and outpatient), and their tendency to obtain care for such problems in a primary care setting rather than in a behavioral care setting make clear the value of testing improved methods of primary care management for these problems (Broadhead, Blazer, George & Tse, 1990; Blazer, Kessler, McGonagle & Swartz., 1994; Blazer et al., 1995; Lehman, 1983; Linn & Yeager, 1980; Lipsey & Wilson, 1993; Manning & Wells, 1992; Regier et al., 1993; Spitzer et al., 1994; Spitzer et al., 1995; Wells et al., 1989).

We adopted the PRIME-MD (Spitzer et al., 1994) depression screen because of its ease of use in our internal medicine (IM) residency-training clinic. It involves two questions on depression in the first stage (depressed, loss of interest). A positive response to either of these warrants nine further questions directly corresponding to the nine DSM-IV criteria for a major depressive episode (American Psychiatric Association, 1994). The PRIME-MD's Sensitivity = 57, and its Specificity = 98, which yields a high positive predictive value in an IM clinic with high depression prevalence. Accurate screening, however, has been found to be insufficient to ensure follow-up treatment in a primary care setting (Linn & Yeager, 1980; Magruder-Habib et al., 1990). Some simple and flexible referral/treatment protocol after screening diagnosis seems needed.

This randomized trial examined how the combination of simple screening and referral/treatment for major depressive disorder affects indigent clinic patients' relief of depression symptoms, quality of life, and health care costs. Because of the nature of IM clinics, the protocol we adopted was simple; it followed standard guidelines, and required a few minutes of the resident physician's time, on average, at the initial visit. Our intent was not to validate the effectiveness of the screen to identify depression nor to prove that behavioral/medical treatment for depression is superior to no treatment. Instead, it was to test the full protocol of screening with referral/treatment against a resident physician's usual care in an indigent population.

Investigators have called for randomized trials like this one to resolve unanswered questions (Beck, Ward, Mendelson, Mock & Erbaugh, 1961; Eisenberg, 1992; Schulberg & Pajer, 1994). For example, trials on the efficacy of treatment have primarily been based on patients seeking treatment for their depression. We needed evidence that indigent depressed patients, who were not seeking treatment, would benefit from standard treatment. Three reasons led us to expect that the benefits of screening and referral/treatment would be even more pronounced than in a general primary care setting. First, the high prevalence of major depression in our clinic meant that not only would the screening be efficient, but also our residents would quickly become experienced in treating these patients. Second, the lack of continuity of care in such clinics, because of changing residents, suggests that usual care patients have a lower tendency to discuss emotional and behavioral issues with the residents than in a general primary care setting. Third, the planned increased coordination of care between our indigent clinics and the county's public mental health service agency meant that indigent patients should receive more efficient, timely, and continuous care than when these services are sought independently.

Design and Methods

Clinic patients were consecutively eligible for the study if they were over 18 years old and indigent (no current private health insurance and low income or currently on Medicaid). Patients were randomized to the two groups if they: 1) screened positive for a major depressive episode according to the PRIME-MD depression screen, 2) were not receiving treatment for any mental health problem or were not seeking help for depression at the screen, 3) could read and respond to symptom questions, and 4) gave informed consent. Patients were excluded from randomization if they responded "yes" to the suicide ideation question (all suicide ideation patients were treated immediately by their physician). Approvals were obtained from Northeastern Ohio Universities College of Medicine's, Canton Hospitals', and Nova Behavioral Health, Inc.'s IRBs (institutional review boards).

The referral/treatment protocol consisted of the screening nurse advising the physician about the positive screen results, a reminder to follow the protocol for that result, and assistance for the patient to obtain a behavioral care appointment. In the usual care (control) group, physicians were not informed by the screening nurse about the results of the screen, but the patients were told by the screening nurse that they may have a problem with depression, that current care is effective in treating these problems, and that they can refer themselves for treatment. Resident physicians were aware of the design, so that they continued with their usual approach to identifying and treating or referring depression problems in all their patients. Residents were trained to follow the AHCPR guidelines (Depression Guideline Panel, 1993) for treating depression in a primary care setting and received presentations and summary readings on major depression as well as results of recent research on the use of antidepressants. Residents were also to attempt to educate the treatment group patients about their depression symptoms to convince them of the benefits of behavioral health care and to make an appointment for such care with the nurse.

At six months and at one year, all patients were contacted over the telephone by one of the investigators. At these two time points, all patients were administered the Beck Depression Inventory-II (BDI) and a quality of life measure (SF-36) (Beck et al., 1961; Ware & Gandek, 1994). At the one-year telephone interview, if usual care patients continued to screen positive for depression they were asked to come back to the clinic for the referral/treatment protocol. Internal medicine clinic records, hospital billing records, and behavioral health care billing records were surveyed for each of the study patients. Abstracted information from these records pertained to patterns of use of medical and behavioral care services, costs for all services as a function of time, and whether the patient was enrolled in Medicaid at the time of each recorded service. Patients were also interviewed about the behavioral care they received

and their hospital admissions to verify results found in databases. Patients' behavioral care specialists were also surveyed about coordination of services.

At the end of positive screening for depression, the BDI was administered in order to index the severity of the depression. We also administered the SF-36 at baseline. For all patients the screening nurse abstracted from the clinic charts: diagnoses, comorbidities, demographics, and Medicaid enrollment or not. Patients who obtained behavioral care during the follow-up period were identified through two databases and through the telephone interviews. From this information, we identified their behavioral care specialist and mailed them a survey to obtain information about the patient's treatment.

Statistical Analyses. The depression symptoms, quality of life and quarterly health care costs of the intervention group were compared to the usual care group using repeated measures mixed model analyses with a double-sided test at $\alpha = .05$. For depression symptoms we used a mean summary measure across the six and 12-month measures to estimate the intervention effect. For QOL a slope effect was estimated assuming the QOL would continue to improve over the year. For costs, we compared zero to six month and six to 12 month costs separately. To handle missing values and to explore variance components and model fit, we used SAS's Proc Mixed. To add precision to this analysis, we used baseline covariates, such as screen results, BDI and SF-36 scores, gender, primary medical diagnoses, number of comorbidities, Medicaid enrollment or not, and prior health care costs.

Enrollment. After one year of enrollment, 61 patients were randomized (33 intervention 28 usual care). This number provided 80 percent power to detect a .75 standard deviation difference between the two randomized groups on the main outcomes of BDI scores. This is a smaller number than we expected from one year of enrollment. We mainly attribute this to greater recognition and treatment of depression by our residents (thereby leaving much fewer untreated eligible patients) than we found in a pilot.

Results

Of the 1,095 patients screened, 497 (45%) screened positive for a major depressive episode. Of these, 396 (80%) were already being treated for depression at the time of the screen. (During a pilot in 1996 less than 50% of positive screens were being treated.) The other exclusions were accounted for by 24 with suicide ideation who were not being treated at the screen, and 16 who refused to participate (mainly because of reluctance to be treated for depression) leaving 61 patients for randomization.

Early on there were difficulties in completing follow-up telephone interviews. Many patients were difficult to contact by telephone even with the use of the second telephone number we had obtained at the screen. For those not successfully contacted, we were successful at obtaining their responses to the SF-36 and the BDI by mailing forms with a small payment ($2) in the envelope and a promise of eight more dollars upon return. (A similar approach in which we promised a $10 payment upon return failed.) We also followed up a few patients by contacting them at return visits to the clinic. We only had six (10%) patients lost to follow-up.

Table 1 shows the baseline characteristics of the two randomized groups. No significant differences were found between groups at baseline, although the intervention group appeared to be slightly more depressed than the usual care group. As noted, baseline differences like this were used to adjust the maximum likelihood estimates (MLEs) of the intervention effect. According to the BDI scores at baseline, 76 percent of the intervention group and 57 percent of the usual care group were moderately to severely depressed.

Table 1. Patient Characteristics at Enrollment by Group

	Usual Care (n = 28)	Intervention (n = 33)
Age (0)	46 (1.5)	45 (1.9)
(range)	28 - 67	24 - 63
Gender (% Female)	61 (.09)	76 (.08)
Heart Disease (%)	22 (.08)	13 (.06)
Diabetes (%)	22 (.08)	25 (.07)
Baseline BDI-II	23 (2.1)	28 (2.1)

Note. Numbers in parentheses adjacent to statistics are their standard errors.

Table 2. Intervention Effect Estimates (MLEs) for BDI and the Secondary Outcomes of QOL and Costs

	Intervention Effect [a]	SE	p-value	Effect Size [a]
BDI	-4.9	2.49	.05	-.41
QOL (Total SF36 with slope model)	3.6	3.2	.27	.34
Health Care Costs in Dollars				
Total Costs				
0-6 mos.	322	741	.26[b]	.08
6-12 mos.	-617	741	.93[b]	-.16
Outpatient Costs				
0-6 mos.	39	210	.87[b]	.04
6-12 mos.	-128	210	.28[b]	-.12

Note. MLEs = Maximum likelihood estimates; BDI = Beck Depression Inventory; QOL = Quality of life.
[a]Estimates obtained using linear mixed models that take into account baseline levels. Intervention effect estimates represent the difference between intervention and control group responses. The effect size is the intervention effect divided by baseline SD.
[b]Non parametric test based on ranks.

Table 2 provides the intervention effect on depression symptoms (BDI scores) over the six and 12-month follow-ups. As expected, the intervention reduced depression symptoms relative to controls. The effect of -4.9 points was significant (p = .05) and represents a moderate effect size of -.41 standard

deviations. Table 2 also provides estimates of the intervention effect on QOL and costs. The intervention showed a positive (superior) effect on the overall QOL (3.6 points better over a year), but this was not significant. For the Physical and Mental subscales of the SF-36, the results were similar. As expected, costs in the first six months were slightly higher, but were lower from six to 12 months. These differences were not significant.

In the intervention group, 14 (44%) were prescribed antidepressants at the initial visit. During the course of the follow-up year, seven (22%) additional patients were subsequently prescribed antidepressants. Eight of the intervention patients had at least one visit to the behavioral care agency. In the usual care group only four (15%) patients were prescribed antidepressants any time during the study period. No depression care was identified for 67 percent of the usual care patients.

We found no interaction between baseline depression severity and treatment benefit. Patients with Medicaid did not appear to benefit more or less than those without. There was some weak evidence that patients treated immediately benefited more than others. Adjusting for gender, age, and Medicaid**,** in addition to baseline BDI, did not affect the estimate of the intervention effect.

Discussion

This randomized trial showed that indigent IM clinic outpatients who screened positive for depression benefited from treatment by resident physicians who were trained with AHCPR depression guidelines. Intervention group patients' depression symptoms were significantly lower than controls over the six month and one year assessments. Although we did not find significant differences between the two groups on QOL or health care costs, results were in the expected direction.

Our attempts to increase communication between our IM clinic and the local public health clinic were not successful. Of the 33 patients in the intervention group, only eight made at least one visit to the agency. For these eight, their average compliance rating given by a provider at the agency was poor. Beyond our referral to the agency, we identified no further communication between the IM clinic and the agency.

Depressed indigent IM clinic patients have many physical health problems (e.g., 14% heart disease, 24% diabetes), resulting in an unusually high hospitalization rate of 23 percent over the follow-up year. Recall that of the IM clinic patients screened, 45 percent screened positive. In our IM clinic 80 percent were already being treated for depression, but it may not be that high in other clinics. Our attempt to train the residents in ACHPR guidelines may have made the percentage higher than what we found in our pilot study (50% of positives were being treated). The high prevalence, the disease burden of these patients, and our successful trial clearly justifies screening and treatment of indigent IM clinic patients.

Our experience suggests that residents could use more extensive training in depression treatment and that behavioral therapy might be better integrated into the IM clinic care. We are currently planning another depression treatment trial with these adaptations.

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THE INNOVATION DIFFUSION AND ADOPTION RESEARCH PROJECT (IDARP): MOVING FROM THE DIFFUSION OF RESEARCH RESULTS TO PROMOTING THE ADOPTION OF EVIDENCE-BASED INNOVATIONS IN THE OHIO MENTAL HEALTH SYSTEM

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In the process of implementing its quality agenda, the Ohio Department of Mental Health is taking action in three arenas: consumer Outcomes, quality improvement, and evidence-based practices (EBPs). This project is focused on the EBP component of the implementation process.

The ODMH hopes to improve quality of care by facilitating the adoption and assimilation of EBPs by service providers in Ohio. Coordinating Centers of Excellence (CCOE) have been established as structural mechanisms to accomplish this goal. Each CCOE is seen as the statewide technical expert with regard to the implementation of a specific one of these innovative practices. The major functions of CCOEs are to disseminate information about EBPs to provider organizations, to promote the adoption of EBPs, and to provide the technical assistance, training, and consultation required for the successful implementation of a specific EBP by service providers.

Within the health care domain, evidence-based practices (EBPs) are interventions for which there is consistent scientific evidence that they improve client outcomes (Drake et al., in press). In order for an EBP to be considered an innovation, the EBP must be *perceived* as new by adopting organizations. Given that EBPs tend to represent state-of-the-art practices, it is expected that EBPs will be seen as technical and/or administrative innovations to adopting organizations in this research. However, in contrast to the definition of an EBP, innovations, by definition, do not require consistent scientific evidence that they improve outcomes. For ease of reference and given the assumption that an EBP will be perceived as innovative, the terms EBP and innovation will be used interchangeably in this document.

This research specifically focuses on four CCOEs and therefore, four EBPs which include:

1. The Ohio Medication Algorithm Project (OMAP). The OMAP CCOE disseminates medication algorithms developed through the Texas Medication Algorithm Project. These algorithms promote the use of atypical anti-psychotic medications, new generation antidepressant medications, and mono-therapy as a first line of treatment.

2. Cluster-Based Planning Alliance. This innovation involves the use of a research-based consumer classification scheme to guide staff training, consumer outcomes management, and treatment and service planning within mental health organizations.

3. The Center for Innovative Practices in Youth and Family Mental Health (CIP). CIP provides technical assistance, training and fidelity assessment to agencies adopting the Multi-Systemic

Therapy model developed by Scott Henggeler (1999). This approach involves the use of treatment teams to provide intensive home-based treatment to youth that cuts across key settings and systems, including family, peers, school and neighborhood.

4. Ohio Substance Abuse and Mental Illness (SAMI) CCOE. The Ohio SAMI CCOE provides training, consultation, technical support and fidelity assessments to agencies adopting the New Hampshire-Dartmouth SAMI model, an integrated and comprehensive treatment model for individuals with mental illness and substance abuse.

Research Questions

The project focuses on two broad questions: 1) What factors and processes influence the adoption of innovations by behavioral healthcare provider organizations? 2) What factors and processes contribute to the longer-term assimilation of innovations by adopting organizations? Factors and processes expected to explain variability in the decision to adopt/not adopt and, for adopting organizations, the subsequent assimilation of the innovation, relate to the innovation itself, aspects of the adoption decision process, features of the provider organization, and characteristics of the relationship between the CCOE and the provider organization.

Theoretical and Empirical Framework

Relevant literatures. Numerous literatures contributed to the development of study hypotheses, design, and methods. The organizational change and development literature provided an important foundation because the adoption of innovative practices is seen as a special case of organizational change. In addition, because EBPs are conceptualized as innovative practices, the literature related to the diffusion, adoption and assimilation of innovations (e.g., Rogers, 1995, 1962) contributed in significant ways to the conceptualization of this project. Of particular interest was the research dealing with "user-based" as opposed to "source-based" models of innovation. This is because we are interested in understanding the adoption and implementation of externally developed innovations rather than the process by which innovations are conceived, developed, and disseminated (e.g., Klein & Sorre, 1996). In addition, we focused on studies dealing with the organization rather than the individual as the adopting entity (e.g., Meyer & Goes, 1988; Van de Ven, Angle, & Poole, 2000) because we are primarily interested in adoption and implementation at the organizational level of analyses (by service providers).

Additional important literatures that were reviewed include: 1) the healthcare planning and implementation literature (e.g., Hickson et al., 1986; Nutt, 1992) because the innovations of interest are being diffused in the behavioral healthcare arena, 2) the decision making literature (e.g., Daft & Weick, 1984), particularly the literature related to decision making under conditions of risk (e.g., Kahneman & Tversky, 1979; MacCrimmon & Wehrung, 1986; Staw, Sandelands, & Dutton, 1981; Sitkin and Weingart, 1995) because the adoption of EBPs is seen as involving both benefits and costs for organizations, 3) the knowledge creation and utilization literature (e.g., Abrahamson, 1991; Denis et al., 2001; Fitzgerald et al., 2001) because it acknowledges that the extent to which "evidence" is seen as convincing is likely to vary with the beholder, 5) the literature related to the development and growth of inter-organizational relationships (e.g., Ring & Van de Ven, 1994) because it identifies factors that are expected to explain the quality of the working relationship between CCOEs and adopting organizations, and 6) the work related to levels issues in the conduct of organizational research (e.g., Klein, Dansereau, & Hall, 1994; Kumar, Stern & Anderson, 1993; Rousseau, 1985) because our underlying research models are multi-level in nature (i.e., involve predictor variables which span at least four levels of analyses from the innovation itself to the CCOE-adopting organization dyad.)

Guiding assumptions. Reviews of these literatures resulted in the identification of several central assumptions which guide the research. First, organization-level models of the adoption, implementation and assimilation of innovations are more complex than individual models (Rogers, 1995; Klein & Sorre, 1996; Van de Ven, Angle & Poole, 2000; Meyer & Goes, 1988). Second, scientific evidence in support of the effectiveness of an innovation may be helpful but it is neither necessary nor sufficient for the adoption of innovative practices by organizations (Abrahamson, 1991; Denis et al., 2001). Third, effective approaches for arriving at adoption decisions and implementing new practices are commonly known by managers but are uncommonly practiced (Nutt, 1999). Fourth, variables that explain significant and meaningful variability in the decision to adopt innovations and the success of implementation efforts 1) span multiple levels from the innovation itself to the environment in which adopting organizations conduct business, and 2) include process, perceptual, and attitudinal variables (Damanpour, 1991; Fishbein & Azjen, 1975 ; Meyer & Goes, 1988; Rogers, 1995; Van de Ven, Angle, & Poole, 2000). Fifth, systematic study of the factors and processes impacting adoption decisions and implementation efforts is critical to maximizing functional learning (e.g., self-correcting processes) and minimizing superstitious learning (e.g., proliferation of self-serving explanations of successful and unsuccessful implementation efforts) (Argyris, 1989; Senge, 1990). Finally, the innovation literature suggested that it is important to examine two key phases of user-based innovation processes: the adoption decision-making phase and the implementation phase.

Research models. Study hypotheses are linked to two fundamental models, which in turn, are directly related to the two key phases of user-based models of the innovation process (i.e., the adoption decision phase; the implementation phase.) The phase one model, which focuses on the adoption decision, conceptualizes the decision to adopt as a decision made under conditions of risk. The phase two model, which applies only to organizations that decide to adopt an innovation, regresses the success of the innovation implementation effort on variables which span several levels of analyses. As a result, the phase two model is conceptualized as a hierarchical linear model.

The adoption decision is seen as a decision under risk because adopting an innovation involves both costs (e.g., substantial start-up costs) and benefits (e.g., reduced inpatient or other service costs) to organizations and stakeholders (e.g., employees, consumers). In addition, perceptions of costs and benefits typically vary by stakeholder group (see Table 1 for hypothetical example) (Denis et al., 2001).

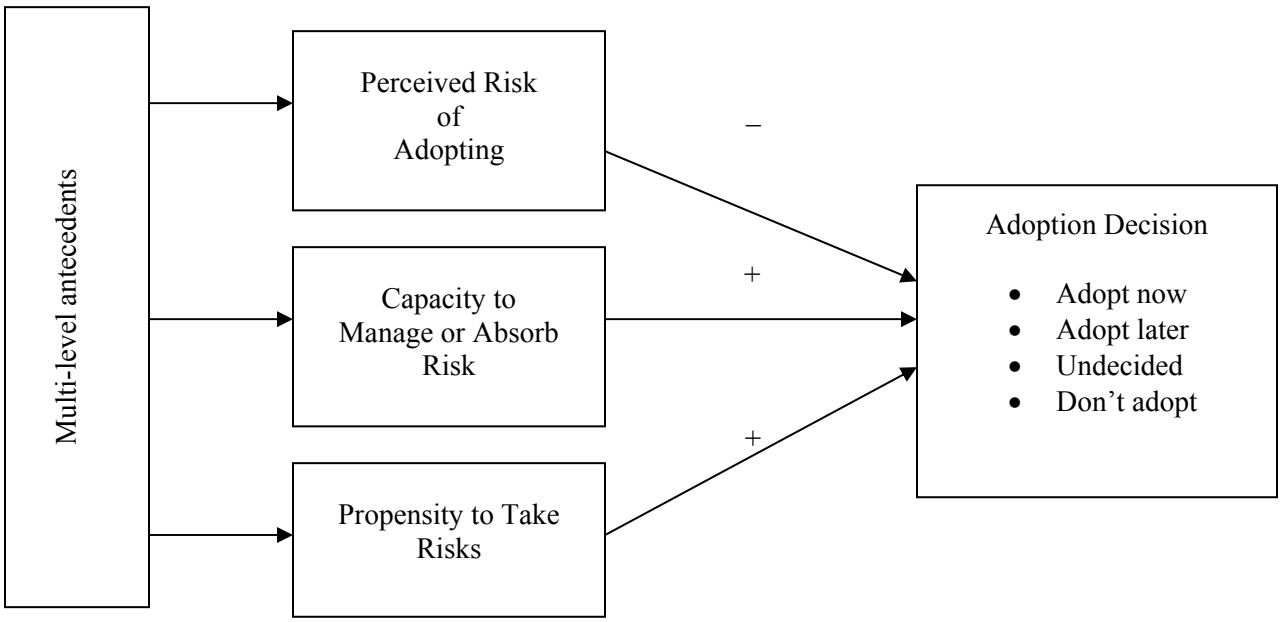
Table 1. Cost/Benefit Map for Hypothetical Innovation

Stakeholder	Benefits	Costs
Provider organization	Reduce inpatient or other costs	High start-up costs; difficulty hiring staff
Direct care staff	More effective service	Inconvenient hours; burnout
MIS staff	Increased power for department	Heavier workload
Consumer	Fewer hospitalizations	Less freedom

All else equal, the likelihood of deciding to adopt an innovation increases with the extent to which perceived benefits outweigh costs. When this occurs, the perceived risk of adoption is likely to be low (see Figure 1) and a decision to adopt is likely to be made.

As shown below, a decision to adopt also is more likely when an organization has the capacity to manage down-side risk (e.g., slack resources are available) and when the organization has a past history or propensity to take risks.

Figure 1. Phase I: The decision to adopt an innovation as a decision under risk.



Finally, as indicated in Figure 1, the variability in the perceived risk of adopting, the capacity to manage adoption-related risks, and the propensity to take risks is expected to be explained by a host of antecedent variables that span multiple levels of analysis. These constructs as well as their antecedents will be measured in the research.

For those organizations that choose to adopt an innovation, the next phase of the process is the implementation of the innovation (see Figure 2). As depicted in Figure 2, variables that explain the outcomes of the implementation process are likely to span several levels from the innovation itself to characteristics of the dyadic relationship between the CCOE and the adopting organization. The examples provided in Figure 2 for Level 1 through Level 4 predictors of implementation outcomes all are expected to be positively linked to the success of implementation efforts.

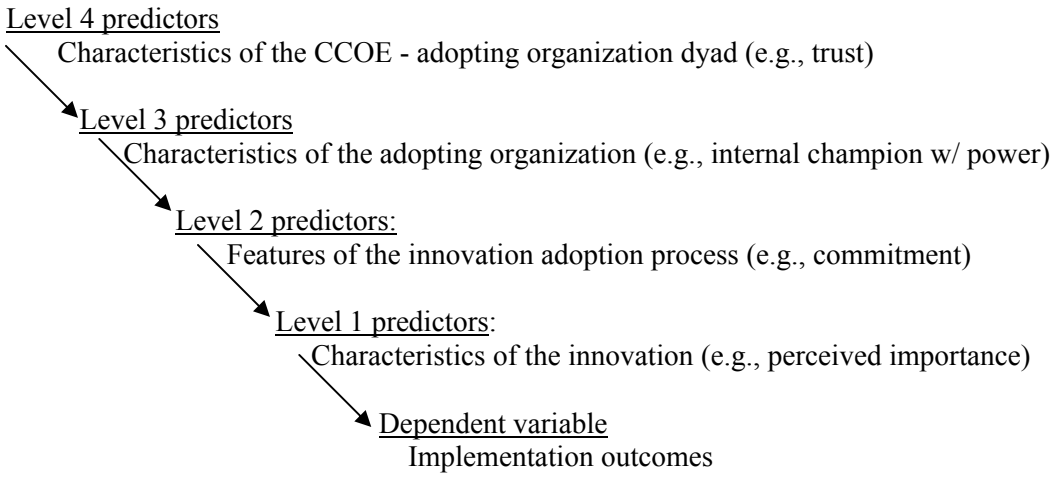
In summary, two models provide the framework for hypothesis testing. The Phase 1 model (i.e., adoption decision) will be tested with all willing organizations that have been approached by one or more of the four CCOEs. The Phase 2 implementation model will be tested with organizations that have decided to adopt one of the four innovations of interest in this research.

Methodology

A longitudinal design is being utilized to follow the adoption and implementation processes as they occur. Data are going to be gathered at six-month intervals over a two-year period. The initial sample includes approximately 45 provider organizations that have had contact with one or more CCOEs.

Additional sites will be added to the sample as CCOEs make contact with other organizations during the two years.

Figure 2. Phase II: Hierarchical model of factors and processes influencing implementation outcomes.



Data will be collected from organizations that are at various states of adoption and implementation. This includes organizations that have decided to adopt an EBP, as well as organizations that have decided not to adopt an EBP and organizations that have decided that they may reconsider adopting the EBP in the future ("wait and see" group). Data will also be collected from organizations that have implemented the EBP and organizations that implemented the EBP and later decided to discontinue implementation ("de-adopters").

At each organization, data are being gathered from four or five key informants: one or two staff involved in the adoption decision (e.g., executive director, medical director, clinical supervisor); one or two staff involved in planning and implementing the EBP (e.g., case managers, supervisors, psychiatrists); and one or two administrative staff who can provide general information related to organizational structure and resources. Finally, representatives of the four CCOEs as well as organizational informants are providing data about the working relationship between the CCOE and the organization.

Several data gathering approaches are being used to obtain quantitative and qualitative data. Interviews are conducted with key informants and representatives from each CCOE. These interviews include structured and open-ended questions. A "process reconstruction approach" developed by Paul Nutt (1992) is being used to systematically track project planning and implementation processes through planning stages. Participants are asked to describe the steps taken from the point at which they initially heard about the innovation to their current level of implementation. At each step, participants are asked to describe what took place, people involved, and how the work was carried out.

Surveys are being administered to key informants at each organization and to representatives from each CCOE to gather additional data related to variables in the adoption decision and implementation models. Archival data related to organizational structure, size and budget are obtained from administrative and fiscal staff.

Progress to Date

Selection of the CCOEs was completed in spring, 2001. A diverse group of CCOEs was identified in order to maximize the generalizability of the findings. The EBPs disseminated by participating CCOEs vary on a number of key characteristics (e.g., evidence, salience, perceived complexity, level of coordination and consensus required to implement, visibility of outcomes).

In order to become familiar with each CCOE and organizations adopting the four EBPs, IDARP research team members attended a variety of meetings between the CCOEs and organizations. For example, the research team observed presentations by CCOE representatives to organizations that were considering adopting various EBPs. The research team also attended needs assessments and trainings for organizations that were in various stages of implementation.

Interview protocols and survey instruments were finalized in November, 2001. Established scales were identified from relevant literature and individual questions were adapted for application to a mental health organization context. Measures were also adapted to suit organizations at various adoption/ implementation states.

Data collection was initiated in December 2001. As of June, 2002, data have been collected from about 30 organizations plus the four CCOEs. Between two and four staff members have been interviewed at each of these organizations and nearly one hundred and fifty surveys have been received. The current sample includes organizations that have been implementing for a while, organizations that recently decided to adopt, organizations that have decided not to adopt, plus a handful of organizations that have discontinued the practice (i.e., de-adopters).

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ENHANCING GENERAL EDUCATION CLASSROOM ADJUSTMENT FOR STUDENTS WITH SERIOUS EMOTIONAL DISTURBANCES THROUGH SOCIAL SKILLS INSTRUCTION

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This abstract provides data from two studies conducted over a three-year period within a project designed to increase the classroom and school success of students with serious emotional disturbances (SED) and those at risk for SED. This abstract builds upon previously reported data for third- and fourth-grade "at-risk" students and describes social skill instructional data for a group of fourth- and fifth-grade students diagnosed with SED. The focus of these studies was to determine the beneficial effects of small group and classroom based social skill instruction on the adaptive behaviors of behaviorally troubled children.

Many issues surrounding children who are at risk of or who exhibit behavior problems have been addressed in the literature. Most researchers and educators agree that children with behavior problems have social skill deficits (Merrell, Merz, Johnson, & Ring, 1992; Merrell, Sanders, & Popinga, 1993). Social skills that enable children to interact appropriately with peers and adults are related to peer acceptance, interpersonal development, and school achievement (Cartledge & Milburn, 1995). It is, therefore, not surprising that social skill deficiencies pose multiple challenges for students with behavior problems to be successful in the general education classrooms or inclusive settings (Lewis, Chard, & Scott, 1994). To maximize the general education learning environments "(a) general education teachers need to be prepared and assisted in ways to manage aberrant behaviors and help students develop appropriate social behaviors, and (b) children with disabilities need direct and systematic instruction in social skills" (Cartledge & Johnson, 1996, p. 52).

Social skill instruction has been reported as a potentially effective intervention to improve social behaviors and reduce antisocial behaviors of students who are at risk for behavioral problems (Ager & Cole, 1991; Zaragoza, Vaughn, & McIntosh, 1991). However, the majority of research on social skill instruction has been conducted solely in isolated training settings. In these training settings, children have little interaction with typical peers. This isolation obstructs the development of social acceptance and generalization of these skills (Choi & Heckenlaible-Gotto, 1998). In this study, both pullout and classroom-based social skill instruction was implemented to determine if social skill instruction would result in improved social behaviors and reduced antisocial behaviors for inclusive students with at-risk behaviors. The purpose of this study was to examine the effects of social skill instruction on the social behaviors of students who are at risk for SED. Specifically, the effects of social skill instruction was evaluated to determine whether the pullout small-group and classroom-based social skill instruction would help students at risk for SED (a) reduce antisocial behaviors, (b) improve socially appropriate behaviors, and (c) increase the probability of being successful in the general education classrooms.

Few past studies have focused on teachers as the social skill trainers, and even fewer focused on providing social skill training in general education settings. The lack of teaching social skills in general education environments often inhibits generalization, since the training settings are not part of the students' natural environments (Choi & Heckenbaible-Gotto, 1998). Moreover, classroom teachers are usually more familiar with students' specific social needs and deficiencies than are other social skill

trainers (Quinn, Jannasch-Pennell, & Rutherford, 1995). Thus, teachers can serve as ideal trainers to provide direct social skill instruction to help students with emotional or behavioral disorders experience success in general education classrooms. Considering these factors, the researchers questioned if the combined effects of small-group and classroom based social skill instruction would result in (a) reductions in antisocial behaviors, (b) increases in socially appropriate behaviors, and (c) successful retentions in general education classroom placements.

Subjects

At-risk. The at-risk students were five third- and fourth-grade students enrolled in general education classrooms in an urban elementary school located in Columbus, Ohio. These students were selected according to scores on the Social Skills Rating System–Teacher Form (SSRS-T) (Gresham & Elliott, 1990) teacher nomination, and direct observation. Students were targeted for participation if they exhibited a high frequency of problem behaviors during pre-baseline direct observations, received teacher ratings on the SSRS-T showing that problem behaviors fell above the 90th percentile and social skills fell below the 25th percentile, and were nominated by their classroom teachers as displaying high levels of problem behaviors in school relative to other students. At the beginning of this study, the ages of target students ranged from 8.25 to 10.16 years with a mean of 9.25 years.

This group consisted of four African American males and one African American female all of whom were reported to have difficulties with anger management, following directions, and classroom attentiveness. Two of the students were on medication at the time of this study.

SED. These were four fourth- and fifth-grade students diagnosed with SED enrolled in a self-contained classroom within the same school. Students were targeted for participation if they exhibited a high frequency of problem behaviors during pre-baseline direct observations. At the beginning of this study, the ages of target students ranged from 10.17 to 12 years with a mean of 11.7 years.

The students with SED targeted for data collection were four males, two African American and two European American. Two of the students were fourth graders and two were assigned to the fifth grade. Although the class had eight enrolled students, data were collected on only these four due to problems associated with resources for additional data collectors, pupil absenteeism, and subject mortality. All four boys were described as underachieving academically and as displaying externalizing behavior problems such as physical aggression, verbal aggression, noncompliance, and inattentiveness. All four students were receiving medication for their respective emotional and behavioral disorders.

Experimental Design

A multiple baseline across-subjects design was employed to assess the effects of social skill instruction on the social behaviors of students with SED. The dependent variable--the frequency of antisocial behaviors exhibited by the students--was measured in the classroom and cafeteria. The independent variables were small-group social skill instruction conducted by the researchers and classroom social skill instruction delivered by the teacher.

Antisocial behaviors were defined as the occurrence of any poor social interaction, social rule violation, or aggression (both physical and verbal) such as refusing to participate in groups; cheating or lying; refusing to provide help or unable to ask for help when needed; noncompliance with school rules; offending authority; attacking others by hitting, kicking, or other physical action that causes harm; and making threatening statements.

The measurement of antisocial behaviors was conducted using an interval recording procedure that involved an observer recording the occurrence of antisocial behaviors exhibited by each target student during 16 observation intervals. Each observation interval was ten seconds in length, resulting in a two minute and sixty second observation for each target child. Observations were conducted three times per week during normal classroom activities and in the cafeteria.

Small Group Instruction

Social skill instruction was taught in three small groups with at least one student with SED in each group. One group contained two of the targeted students with SED. Each of the three groups also had at least one student who was viewed to be at risk for SED and at least one student identified as socially competent. These designations were made by the classroom teacher, but verified through direct observations by the researchers.

All groups received instruction (taught by two master's level graduate students in special education) three times per week with each session lasting approximately 20 to 30 minutes. The instructional groups were staggered so that over a period of six weeks all the target students were engaged in small group instruction. The project director attended a minimum of three group sessions per week (one session for each group) to ensure that instructional procedures were consistent with the prescribed curriculum. Periodic meetings were conducted with the small group instructors to discuss lesson plans, student progress, and other problems that emerged during instruction.

Classroom Instruction

Classroom instruction commenced in each of the classrooms after all the students in the small groups were receiving instruction. The teachers taught the social skill lessons two to three times per week for sessions lasting between 15 and 30 minutes. To ensure that the classroom teacher followed the procedures outlined in the prescribed curriculum, the project director attended a minimum of one instructional session per week in each classroom. In addition, the director met with each teacher as needed to discuss issues that emerged during social skills instruction. Over the course of this project, all of the teachers in the school received social skill curriculums and committed to teaching social skills two to three times weekly. The research staff monitored the teaching behavior of the teachers of the students in the groups and was able to verify instruction taking place in these classrooms. That means that the entire class of third, fourth, fifth, and SED students received classroom social skill instruction three times weekly during the course of this study. Limited resources prohibited monitoring other classrooms or targeting additional students for daily observations. Nevertheless, the researchers are confident that the findings are commensurate with what would be expected if a wider application of data collection had been possible.

Results

Since the data for the learners considered to be at-risk were reported in a previous abstract, only the data for the students with SED will be detailed here in the narrative. Graphs for the students at-risk, however, (i.e., Figures 3 and 4) are included at the end of this abstract and are used for reference in the discussion. Multiple baseline data (frequency of antisocial behavior during classroom and lunchroom observations for all targeted students with SED who completed the year) are summarized in Figures 1 and 2.

Classroom. A variable level of antisocial behaviors in the classroom (see Figure 1) was noted for all students during baseline. During small group instruction, the frequency of students' antisocial

behaviors in the classroom gradually decreased for Student 2 and made a precipitous drop for Student 3. Disruptive behavior for Student 4 began to decline prior to small group intervention but stayed at a zero responding level during instruction. The intervention appeared to have little or no effect on Student 1. During small group and classroom instruction, the data paths of antisocial behavior for Students 2, 3, and 4 showed an average of low level of responding, with some spiking for Student 2. This finding is consistent with that for the students at risk except all of the at-risk students showed evidence of improvement following instruction.

Cafeteria. The cafeteria data indicate that all the target students have low levels of antisocial behaviors by the end of the study (see Figure 2). Student 1, again, appears to be most resistant to the intervention but begins to respond after an extended period of social skill (small group plus classroom) instruction. The low level of responding for Student 4 cannot be attributed to the intervention but the antisocial behavior for Student 2 declines after classroom instruction begins and Student 3 shows positive effects during small group instruction. Again, in comparison to their general education peers, the students with SED show less immediate and pronounced changes to the social skill interventions. These students do, however, make changes in the desired direction and the findings are encouraging in terms of the effects of classroom social skill interventions.

The last column in Table 1 reveals that for both settings all of the targeted students had fewer mean antisocial behaviors following social skill intervention compared to baseline conditions. For the classroom, these decreases started during small group instruction, with Student 3 presenting the greatest declines. Albeit to varying degrees, these figures are further evidence of the positive effects of this treatment on all the students.

Table 1. Mean Scores of Classroom and Lunchroom Antisocial Behaviors of Targeted Students with SED Across Baseline, Small Group Instruction, and the Combination of Small Group and Classroom Instruction

Student	Setting	Baseline	Small Group Instruction	Increase/decrease over baseline	Small group & classroom instruction	Increase/ Decrease over small group	Increase/ Decrease over baseline
1	Classroom	1.86	1.73	-0.13	1.50	-0.23	-0.36
	Lunchroom	0.86	1.53	+0.67	0.74	-0.79	-0.12
2	Classroom	3.40	2.10	-1.30	1.60	-0.50	-1.80
	Lunchroom	1.42	2.14	+0.72	0.80	-1.34	-0.62
3	Classroom	3.36	0.00	-3.36	0.50	+0.50	-2.86
	Lunchroom	1.41	0.20	-1.21	0.00	-0.20	-1.41
4	Classroom	1.20	0.33	-0.87	0.10	-0.23	-0.97
	Lunchroom	0.23	0.17	-0.06	0.00	-0.17	-0.23

Discussion

These two data sets indicate that students who exhibit antisocial behaviors and deficiencies in social interaction skills can benefit from social skill instruction. Nearly all students in this study displayed progressively more socially appropriate behaviors and fewer antisocial behaviors in both the general education classroom and the lunchroom. Even though peaks of antisocial behaviors occurred occasionally during the interventions, the intensity of the occurrences was reduced and the periods between occurrences increased. In other words, students performed longer periods of socially appropriate behaviors between the occurrences of the occasional high levels of antisocial behaviors. One exception to this pattern may be Student 1 with SED, who failed to show a substantial decline in antisocial behaviors in the classroom.

Although the findings are encouraging and the patterns of appropriate and inappropriate behaviors are in the desired direction, several factors about this project need to be addressed. First of all, along with the normal complications attached to conducting intervention studies, investigations with students with behavior disorders within impoverished settings present additional obstacles that are not easily overcome. Among an already extremely mobile population, for example, children with behavior problems are the least stable, presenting high rates of absenteeism or school leaving. At least four students originally targeted for either the at-risk or SED group left in the middle of the data collection process. Because we had already passed the baseline period, it was not possible to replace those students with others for data collection. Another related problem is the disciplinary measures used by the school. The children targeted in this project are those most likely to engage in some type of behavior that has a consequence of either in-school or out-of-school suspension. As the use of suspensions/expulsions increase in our schools, children with behavior problems are spending increasingly greater portions of their school day in non-instructional settings/activities. Suspensions/expulsions were a source of interference in this project. We chose to focus initially on students at the intermediate level (grades 4 through 5) because the SED unit was an intermediate unit and we wanted to create social skill groups that were compatible with the students with SED. While this worked well for instructional groups, it presented problems for follow through because most of the students with SED went on to middle school the following year or did not return to the project school.

In order for the teachers to conduct the social skill lessons, they had to be trained in the teaching methods. Teachers trained in the initial year did not necessarily return the subsequent year. Over the course of this project, there has been a 100 percent turnover in the teaching staff at the intermediate level and there was a different administrative leader each year. Although the staff has been quite cooperative, the difficulties associated with conducting a project with a constantly changing staff are obvious.

Social skill instruction is somewhat ancillary to the mainstream curriculum. Although teachers want their children to behave so that they can teach, they are reluctant to take valuable teaching time to teach social behaviors. This is especially true at this juncture when there is so much pressure for students to pass state mandated tests. Teachers of targeted students in this study were monitored for their teaching; however, those were only spot checks and there is little question that when instructional time was limited, teachers were more than likely to minimize the social skill instruction sessions. Except among the most dedicated or conscientious, teachers are not likely to provide systematic social skill instruction in their classrooms unless it becomes a required part of their curriculum and teaching day. Unlike suspension/expulsions and other punitive measures, the returns of social skill instruction are not immediate. Children would need to receive social skill instruction over an extended period of time throughout their formal schooling to reap the desired effects of more adaptive behavior and greater school/later life success. Punitive measures may remove a troubling child or temporarily stop a disruptive

behavior, but they do not teach a desired behavior or the skills the child needs. Teacher participation in this project was purely voluntary and uneven in its application. Policy makers might give serious consideration to making social skill instruction an integral part of the child's curriculum throughout the schools.

Teachers need support. The children in these studies appeared to respond well to the classroom based instruction but it is unclear if they would have responded as readily if they had not already been in small group instruction. We cannot tell from these data but the researchers speculate that the small group instruction had a facilitating effect for the classroom-based instruction. Indeed, some of the children began to make good progress immediately after the small group instruction began. Furthermore, it must be kept in mind that the children were receiving double doses of instruction once the classroom instruction was initiated. During the same period, the researchers and the classroom teachers were delivering instruction, which suggests that, to be most effective for children with special behavioral and emotional needs, social skill instruction probably should be intensified. The daily demands on the classroom teachers, particularly in low-achieving schools, are such that they could not realistically meet all the students' academic, social, physical, and emotional needs. Schools with large numbers of impoverished, at-risk learners would benefit from full-time behavior specialists who would provide small-group instruction for the children, support and consultation to classroom teachers, and consultation to the parents of these children.

An important missing feature of this project is parent involvement. Parents were not readily available and many failed to provide permissions for their children or to respond to requests for further participation. Efforts needed to implement a meaningful parent component exceeded the resources available in this project.

Recommendations

Despite the previously noted difficulties, the researchers unequivocally endorse the application of social skill instruction in the schools, particularly for high risk youngsters who are otherwise doomed to high levels of punishing consequences, setting the stage for more, rather than less failure. In an expansion of this project, we studied issues related to gender and race and observed that African American males were more likely to be singled out for disciplinary measures than their other race or female classmates (Lo & Cartledge (2001). Suspensions in our predominantly black school (21.94%), for example, greatly exceeded those for a predominantly white school (8.1%) during the same eight-month school period in this district. A closer look at the data for the predominantly black school also revealed that for the students encountering the most (five or more) office referrals, the number of out-of-school suspensions systematically and dramatically increased so that by spring at least three of the students were on home instruction. At the very least these reports fail to support any notion that, for the students in this school, punitive actions such as out-of-school suspensions contributed to school success or served as a deterrent for at least 30 percent of the school population. This observation suggests that children who could least afford it are missing out on the most opportunities for academic and social learning; they are losing valuable instructional time.

To investigate the effects of social skill interventions more rigorously, it would be important to gain greater control over some of the variables such as pupil mobility, teacher attrition, and teacher skill. We concentrated on older children in this project in order to create groups compatible with the intermediate level children with SED assigned to this school, but similar studies initiated with younger children probably would produce greater returns and enable researchers to study the same students over multiple years. This component had to be aborted in our original study due to subject mortality but is

being employed in our current work with primary aged children. Younger children not only have better attendance and fewer suspensions, but early interventions typically ward off many of the problems that emerge with older untreated youngsters.

Teacher stability and skill cannot be overemphasized both for conducting school-based research and for the academic/ social success of high-risk learners. The level of commitment displayed by many of the teachers is admirable but the stressful, volatile conditions indicate the need for stronger incentives and greater support to bring about sustained teacher involvement in both the school and professional development.

All of the students made modest to substantial gains; however, as can be seen in the behavior graphs, well after intervention some of the students had periodic occurrences where undesired behaviors spiked dramatically. Although these events were far less frequent than prior to intervention, they were more often than we desired. We at least partially attributed these eruptions to the fact that some of the students had newly employed teachers with limited skill in basic classroom management strategies. During our classroom observations, the researchers took note of the need for teachers to develop more skill in effective teaching and management practices. Clinical interventions will have little impact if not promoted and reinforced in other settings such as the child's classroom. In our continued studies, for example, we have noted that relatively simple changes in classroom teaching and behavior management practices greatly reduced the level of behavior volatility observed in general and special education classrooms. There can be little doubt that social skill interventions will be more effective for children who are taught in orderly classrooms with meaningful well-designed instructional procedures. Our current efforts are focused on the combined effects of improved classroom practices and social skill instruction.

Implications/Conclusions

Despite the less than optimum circumstances, all the targeted students in this study showed steady progress toward desired behavioral goals. These data point to the beneficial effects of small group and class-wide social skill instruction for students with and at risk for SED. Furthermore, the fact that fewer than 25 percent of the post intervention data points exceeded those of the baseline strongly indicates that the intervention impacted the change. It is unlikely that these gains would persist without continued instruction. Therefore, we advocate that these procedures should be institutionalized within the school curriculum for students with SED and those within high-risk schools throughout their formal schooling.

The less dramatic gains noted in the students with SED compared to their regular class, but at risk, school mates suggests that students with SED need more instruction. These youth need to be given top priority in terms of clinical interventions in the schools, and their classroom teachers need to be highly skilled in teaching social skills as well as effective classroom practices. Ironically, these classes are often least likely to be staffed by trained, certified teachers.

To address some of the previously noted problems typical of impoverished, low-achieving schools, behavior specialists assigned to high risk schools, would work full time helping to maintain children in school, and to teach adaptive behaviors while keeping students exposed to the academic learning needed to keep moving forward scholastically. They would be expected to coordinate activities so that they, the classroom teachers, and parents would be working in concert to bring about more adaptive and healthy behavior in children with behavior disorders.

Figure 1. Frequency of antisocial classroom behaviors exhibited by the target students with SED.

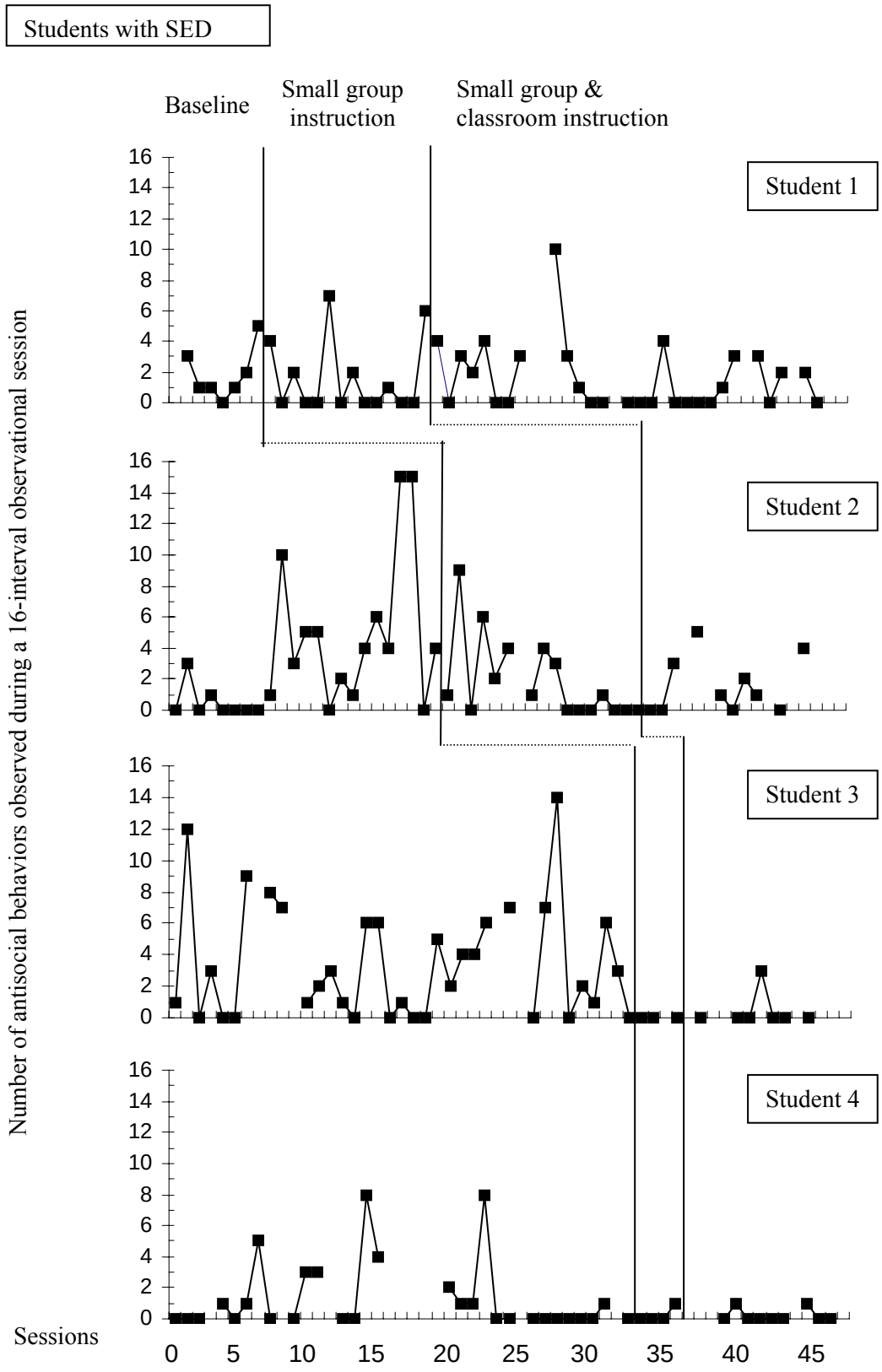


Figure 2. Frequency of antisocial lunchroom behaviors exhibited by target students with SED.

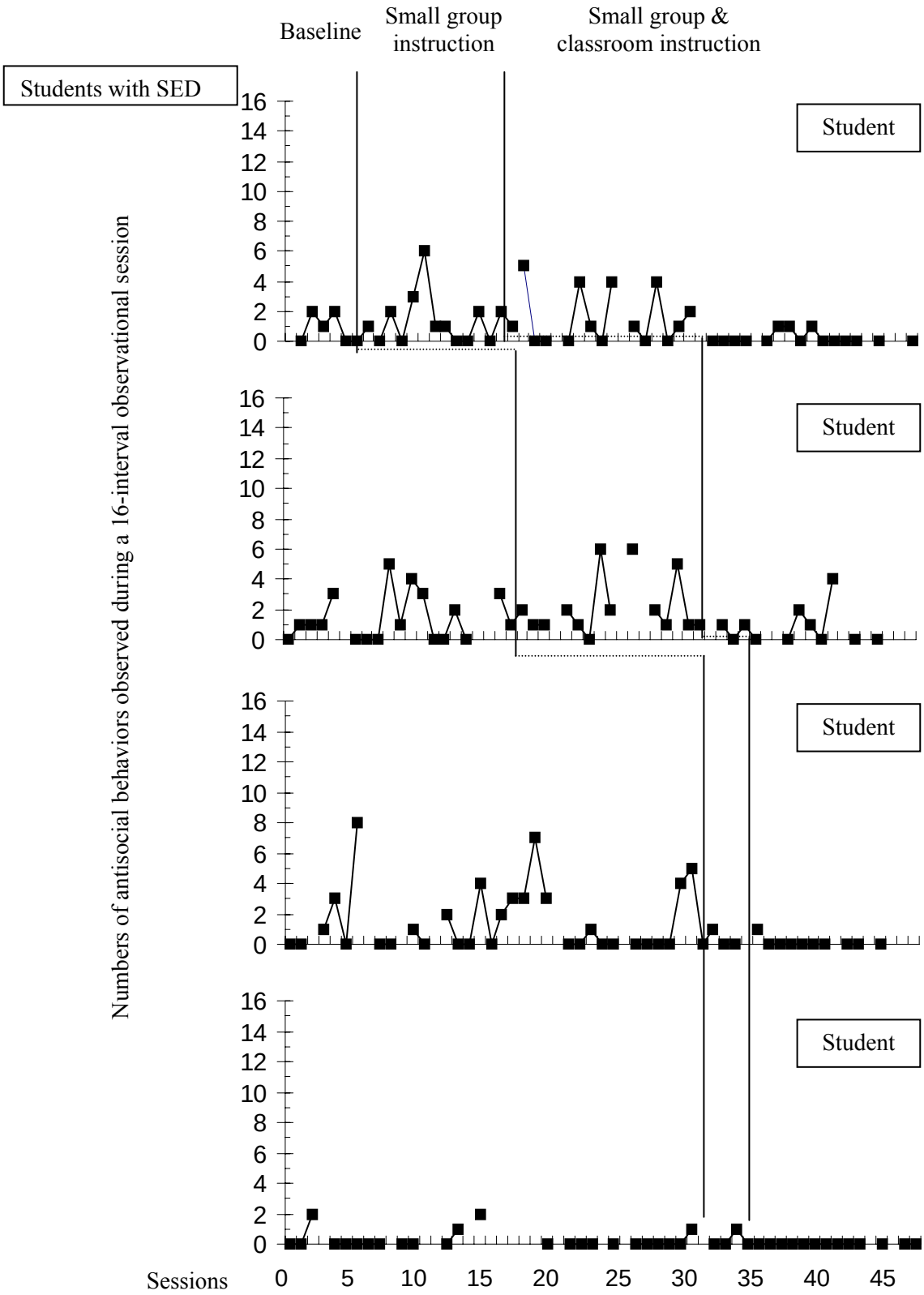


Figure 3. Number of antisocial behaviors exhibited by students at risk for SED in the classrooms.

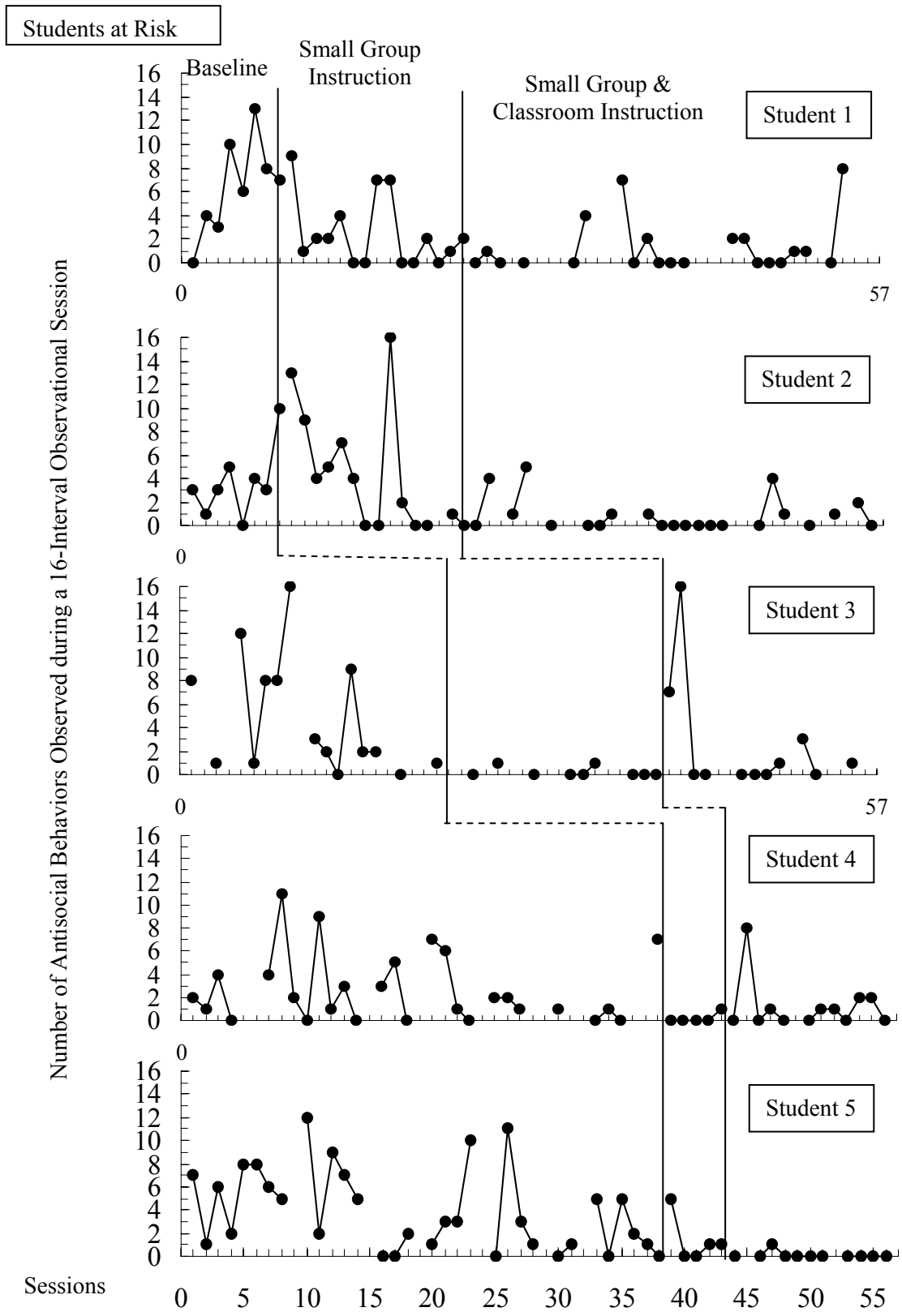
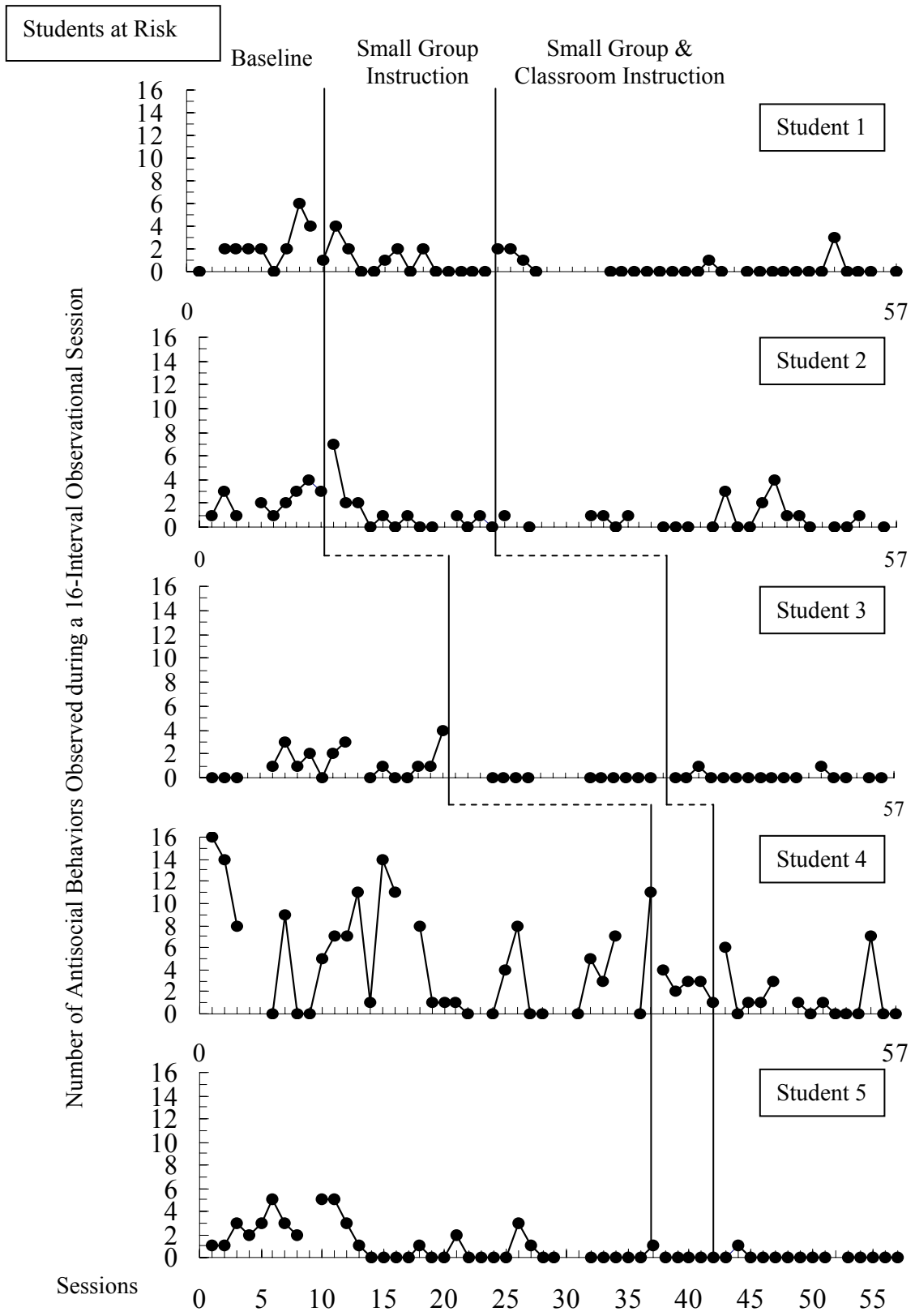


Figure 4. Number of antisocial behaviors exhibited by students at risk for SED in the lunchroom.



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PHYSICAL HEALTH STATUS, SERVICE UTILIZATION, COSTS AND BARRIERS TO CARE IN THE SERIOUSLY MENTALLY DISABLED POPULATION

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The seriously mentally disabled population comprises a complexly ill group with high costs for care provided through public funds. In 1995 there were 54,872 adults in Ohio diagnosed with serious mental disabilities (SMD). About 60 percent of these persons received Medicaid to help finance their health care. In 1998, the Medicaid costs for recipients receiving community mental health services was $23.5 million (Ohio Department of Job and Family Services, Office of Health Plans, July 2000). While these costs are substantial they represent only part of the costs--those related to mental health services; the total costs of caring for both the physical and mental health services for this population is unknown.

Despite the high costs of services for this population, knowledge of their overall health status and specific utilization patterns remains fragmented, due largely to the separation of the physical health and mental health systems in most states and disassociation of the reimbursement tracks for physical health, mental health, and substance abuse services. A review of studies over the past 60 years of mortality among psychiatric patients consistently revealed higher mortality rates in psychiatric patients in comparison with the general population and other matched control groups (Felker, Yazel, & Short, 1996). Studies consistently demonstrate that clients with serious mental disabilities have an all-causes mortality rate about double that of the general population, with mortality rates from suicide, accidents, psychiatric medication poisoning, and HIV-related problems being much higher (Berren, Hill, Merikle, Gonzales, & Santiago, 1994; Dembling, Chen, & Vachon, 1999), particularly within two years following psychiatric hospitalization (Felker et al., 1996).

This project examined the broad area of physical health and health service use of the seriously mentally disabled population. Two distinct studies were conducted as part of this project. Study #1 examined information on the physical health, cost, and service use of an interviewed cohort of subjects, as well as the problems with accessing physical health care for clients with SMD from the perspective of the case manager. Study #2 was a secondary data analysis of administrative databases examining service use and costs for persons with a serious mental disability in Franklin County.

Procedure

Administrative teams at five of the largest CMHAs in Franklin Country assisted research personnel to arrange for focus groups at the agency, to approach clients to obtain consent for participation in interviews, and to arrange for chart audits of the clients who participated in the interviews. Data were obtained from each agency describing the demographic characteristics of clients with SMD served by the agency. Databases from the Franklin County ADAMH Board and the Ohio Department of Jobs and Family Services (ODJFS) were obtained to analyze service utilization and costs for the population of clients with SMD on Medicaid residing in Franklin County. The procedures used in this study were approved by the IRB at the Ohio State University and by research review committees or personnel at all of the agencies.

Study #1 addressed aims #1, 2, 3, 4, 6, and 7. To accomplish the aims of Study #1, focus groups with case managers from the CMHA were conducted to provide insight into the barriers to receipt of physical health services for this population. Interviews, community mental health agency record reviews, and claims analysis for interviewed clients provided in-depth knowledge regarding factors related to physical health and service use, and provided an opportunity to compare information in multiple databases for congruence.

Study #2 addressed aim #5. An analysis of claims data for the SMD population in Franklin County was conducted to determine use of services and cost profiles.

Specific Aims and Related Hypotheses

Aims	Related Hypotheses
A-1 To compare measures of physical health of the SMD population to measures reported in the literature for Ohio, US general and other psychiatric populations.	H-1 Physical health morbidity among the SMD population will be greater than that reported for Ohio, US general and other psychiatric populations.
A-2 To identify factors related to poor physical health among the SMD population.	H-2 Physical health status of individuals with SMD will be related to severity of mental dysfunction, social support, level of CMH monitoring, demographic characteristics, and continuity of insurance coverage.
A-3 To identify factors related to use of physical health services by the SMD population.	H-3 Use of physical health services by individuals with SMD will be related to physical health, severity of mental dysfunction, social support, level of CMH monitoring, demographic characteristics, and continuity of insurance coverage.
A-4 To identify factors related to physical health service costs for the SMD population.	H-4 Physical health service costs for individuals with SMD will be related to physical health, severity and duration of mental dysfunction, social support, level of CMH monitoring, demographic characteristics, and continuity of insurance coverage.
A-5 To describe health service use and cost for physical and mental health care for persons with SMD residing in Franklin County.	
A-6 To identify client and case manager perceptions of barriers experienced in obtaining health services external to the mental health system for members of the SMD population, and	
A-7 To examine congruence of data from various sources (e.g., client reports of physical health vs. reports in CMH agency records, vs. claims data).	

Study 1: An In-depth Examination of Individual Clients from Five Franklin County CMHAs

Focus groups. Six focus groups with 47 agency staff members were conducted at the five participating CMHAs in the summer of 1998 to ascertain staff perceptions of the physical health problems and barriers to obtaining physical health care experienced by the clients at their agency. Either lunch or breakfast was served as a method of thanking staff for their participation. Staff identified agencies serving as referral sites for clients with physical health problems. A member of the research team facilitated each focus group, and another member of the research team recorded staff responses on a flip chart to validate the contributions of staff. Between eight and 15 staff participated in each focus group. Each group lasted approximately one hour. The groups were audiotaped and later transcribed to facilitate analysis of staff responses.

Client interviews. Interviews were conducted with a non-probability proportional sample of clients from each agency beginning in the summer of 1998 and extending through the summer of 1999. Interviewers approached people in the lobby of the agency, or in another location of the mental health agency, and asked if they would like to participate in a research study involving the physical health of mental health clients. If clients expressed interest, the interviewer explained the purpose of the study and assured clients of confidentiality. Clients who agreed to be interviewed signed a consent form that was witnessed by a person of the client's choice. Clients also consented to allow researchers to review their clinical record and Medicaid expenditures for health care. Following the interview, interviewers took the client's blood pressure and measured the client's height and weight. The interview and screening took 40 - 60 minutes to complete. At the end of the interview, clients were given a small token of appreciation for their participation in the interview consisting of personal care items and a food coupon.

Data comparing sample characteristics to agency profiles are presented in Table 1. Across the five agencies, 213 clients were asked to participate in the interview. Of these, 125 (58.7%) clients agreed to be interviewed and 88 (41.3%) refused**.** Of the 125 who agreed to be interviewed, 16 (12.8%) were eventually eliminated from the study because they did not receive Medicaid, did not complete the interview, or withdrew consent during the interview. In the end, 109 clients participated in the study.

Table 1. Sampling Plan for Interviews Based on Agency Populations as of September 1998

Agency	Total SMD	SMD on Medicaid	Percent Medicaid of Total	Expected Interviews	Actual Interviews	Percent of Total Interviews
Agency A	600	272	11.0	11	11	10.1
Agency B	207	85	3.4	3	11	10.1
Agency C	1661	904	36.6	37	37	33.9
Agency D	471	183	7.4	7	9	8.3
Agency E	1667	1029	41.6	42	41	37.6
Total	4606	2473	100	100	109	100

Clients were asked to provide information on health perceptions and functioning through the MOS SF-12 (Ware, Kosinski, & Keller, 1995). The Mental and Physical Component Summaries of the MOS SF-12 correlate with the MOS SF-36 versions in the 0.93 to 0.97 range. The MOS SF-36 has been demonstrated to be a reliable and valid instrument with psychiatric patients (Adler, Bungay, Cynn, & Kosinski, 2000; Ware, Kosinski, & Keller, 1994).

Measures of symptoms were obtained through use of the Quality of Well Being (QWB) symptom list. A list of 27 symptom-problem complexes from the Quality of Well Being Scale was used to more fully determine client perceptions of health (Kaplan, Ganiats, Sieber, & Anderson, 1996). A major benefit of this symptom list is that it provides severity weights for each item. The QWB has been found appropriate for use with a variety of clinical populations. (Kaplan, Atkins, & Timms, 1984; Kaplan, Anderson, Wu, Mathews, Kozin, & Orenstein, 1989). Convergent and discriminant validity have been documented with a range of physiological and performance instruments for the various clinical populations and interrater reliability, interday reliability, and internal consistency are reported in the literature, each with high correlation measures (Anderson, Kaplan, Berry, Bush, & Rumbaut, 1989).

Chart audits. A blank copy of the chart from each agency was used to develop a chart audit form that captured the common data elements in the clinical records across the five CMHAs participating in the study. Charts of the 109 subjects who participated in the interviews were audited from the date of interview retrospectively for three years.

Administrative data bases for interviewed clients: Utilization. Health service use for the 109 interviewed clients was examined through use of ODJFS claim files for 1999 assessing type of service, number of users of that service, and diagnoses recorded for these services. Service types included inpatient hospital (at general hospital), physician office/clinic visit, dental visit, vision visit, and emergency department (ED) visits. Receipt of preventive services (mammograms, pap smears, sigmoidoscopy, and TB screens) was also determined.

Independent/explanatory measures are detailed in the hypothesis statements. Physical health was measured as the score on the MOS-12 PCS; severity and duration of mental health problem was measured by the number of years involved with the current mental health agency and the MCS score on the MOS-12; social support was measured as the number of sources of support indicated by the client; level of community mental health monitoring was determined by involvement with a treatment team (yes/no); demographic characteristics of age, gender, race, education, and income were used; and continuity of insurance coverage was measured by the number of months enrolled in Medicaid during SFY 1999.

Administrative data bases for interviewed clients: Costs. Costs (i.e., charges and payments) were determined for all services, except those billed using a provider type indicator of mental health clinic. These were excluded because of the study focus on physical health service use. Mean cost per month was calculated separately for each service category.

Analysis

Aim #1. The MOS SF-12 PCS was compared with norms for PCS for various age, sex, and chronically ill populations to determine the relative standing of the clients in the interviewed group. No statistical testing was done for this aim.

Aims #2, #3, and #4. Descriptive data were determined for each of the independent and dependent measures. For Aim #2, multiple regressions were completed for three alternative definitions of physical health as the dependent measure. For Aim #3 descriptive statistics were obtained and logistic regression models determined for each utilization measure. For Aim #4, mean cost data were determined and two multiple regression models were developed for charges and payment.

Aim #6. Themes were identified in the focus group data.

Aim #7. Physical health problems (diagnoses) reported by the client were compared with client charts and claims data. The primary purpose of this comparison was to determine the level agreement between data sources.

Results

In general, the clients in this study reflect the age, gender and ethnicity of the overall client population of the five agencies that participated in this study. Slightly over half of the clients (56%) were female and about two thirds were Caucasian and one third were African American. The majority of clients were not married. The clients ranged in age from 19 to 72 with a mean age of 41.2 (*SD* = 10.36). Sixty-eight percent of the clients had received services from the mental health agency for six or more years and 14 of the clients were homeless. Clients had a mean of 11 years of education and a mean annual gross income of $6,049. In terms of their sources of income, all clients were Medicaid recipients, and 28 percent also received Medicare. The majority of clients (n = 96) were unemployed. Ninety-five (87%) of the clients reported having dependents. Ninety-one (83%) of clients were managed by a treatment team. Half of the clients (n = 54; 50%) were diagnosed with some type of schizophrenia and 47 (43%) had some type of affective disorder.

Aim #1: To compare measures of physical health of the SMD population to measures reported in the literature for general and other psychiatric populations

To compare the health of the clients who participated in this study, client scores from the MOS SF-12 were compared to norms for the U.S. general population and for persons with a variety of chronic illnesses, including depression. Data for the U.S. general population and those with chronic illnesses were obtained from data obtained in the Medical Outcomes Study (Ware et al., 1994). The data revealed that clients with SMD residing in Franklin County have poorer physical and mental health than persons in the general U.S. population, subjects who participated in the national Medical Outcomes Study with chronic illnesses, and Franklin County clients on Medicaid and diagnosed with asthma. These findings are confirmed by gender, age, and diagnosis of depression, hypertension, arthritis, diabetes, and chronic lung disease. In addition, 62 percent of these clients reported they smoked cigarettes as compared with 25 percent of the general population, and the mean Body Mass Index (BMI) for this group of clients was 32.6 (range = 9.3 – 64.5) suggesting significant weight problems in this population. A BMI over 30 is considered obese.

Aim #2: To identify factors related to poor physical health among the SMD population

In addressing Aim #2, three regression analyses were conducted. For the first analysis, a multiple regression was conducted with the PCS of the MOS SF-12 as the dependent variable, and the following measures as the independent variables: number of years with the agency; homelessness; number of social support sources identified by the client; treatment team; age, gender, race (African American vs. non-African American); number of months with insurance coverage, and gross annual income. MCS scores were not entered in this regression because of the concern of overlap with the dependent measure (PCS). The results of the first analysis were not significant.

For the second analysis, a multiple regression was conducted with the QWB score (weight associated with the most serious symptom) as the dependent variable, and the same set of measures served as the independent variables with one exception: the number of years registered with the agency was replaced by the MCS of the MOS SF-12 because it was believed to be a better measure of severity of

mental health at the time of the interview. The results of the second analysis revealed that the R^2 of 15 percent was statistically significant, with the MCS playing a particularly strong predictive role.

For the third analysis, substance abuse was selected as the dependent variable because of the hypothesized relationship between substance abuse and physical health problems. Substance abuse indicators were obtained from the list of problems identified on the chart. The same set of independent variables used in the second analysis was used in the third analysis, but, since this dependent variable was dichotomous, a logistic regression analysis was carried out. For the third analysis, the only statistically significant finding was a large gender difference in substance abuse, with a much greater percentage of males being substance abusers.

Aim #3: To identify factors related to use of physical health services by the seriously mentally disabled population

To conduct this analysis, users of services were compared with nonusers. Eighty-nine (85%) clients were seen in an office-based practice some time during the year. Approximately one-half of the clients had an injury-related visit during the year and about half of the clients had visits with coding reporting symptoms only. The predominant physical health diagnoses were within the respiratory category. Over half (53%) of the clients were seen in the emergency department, and 30 percent of the clients had an inpatient hospital admission during the year. The hospitals included in the analysis were limited to general hospitals, and do not include state psychiatric facilities. The key finding in this analysis is the high rate of expensive health services used by this group of clients.

In contrast, less than one-third of the clients had a dental or vision screening visit. Data from the client interviews demonstrates that these percentages are fairly congruent with client self-reports of office visits, emergency department use, and hospitalizations. Less than one third of the women over 50 had a mammogram during the year and less than one-tenth of all women had a pap smear. With regard to physician office visits, women and homeless persons had significantly higher use, and users had higher PCS scores and more months enrolled in Medicaid. Blacks and those involved with a treatment team were less likely to be seen in the ED, and those enrolled more months in Medicaid were more likely to use the ED. Blacks were less likely to have an inpatient admission in the database. Except for mean months enrolled in Medicaid there were no differences between users and nonusers of dental visits. Very few clients had dental visits. With regard to vision services, women were more likely to have received a vision service than men, however, the overall lack of utilization is noteworthy.

In conclusion, the purpose of Aim #3 was to explore the relationship of service use with numerous independent/explanatory variables. The results of this analysis show two variables more likely to be related to utilization--gender (increased utilization by women) and race (decreased utilization by African-Americans). One system variable--treatment team involvement--showed a tendency toward significance with reduced use of physical health services.

Aim #4: To identify factors related to physical health service cost for the seriously mentally disabled population

The focus of Aim #4 was to consider the costs related to the health services use for physical health care of the interviewed clients. Costs for this part of the study were obtained from the ODJFS claims. Costs (i.e., charges and payments) were determined for all services, except those billed using a provider type indicator of mental health clinic were treated separately. Mean costs per month were calculated separately for each service category. All other services were included in the analysis. Costs of

services for this population were substantial, averaging over $25,000 a year per person.

The multiple regression models for total cost shows that costs were related inversely to the physical health scores (as PCS scores decrease, the costs for services increase)--and this is the strongest finding. Mean number of months was also significant, but again this was expected because the longer one was enrolled the greater the likelihood of using services and generating greater costs. These costs figures reflect considerable service utilization by this population and this finding is supported by the literature (Berren, Santiago, Zent, & Carbone 1999). Approximately one-half of the costs were related to mental health services; while the remainder were for physical-health related services.

Aim #6: To identify client and case manager perceptions of barriers experienced in obtaining health services external to the mental health system for members of the SMD population

To address Aim #6, focus groups were conducted at the five CMHAs. Service providers reported barriers to care in three categories: client barriers, provider barriers, and system barriers. Client barriers included that clients are frequently unable to determine when they need to see a doctor or are unwilling to go for care. Transportation was identified as a major barrier. Case managers for homeless and addicted clients reported difficulties caused by client lack of cleanliness, drinking and drug use, unwillingness to refrain from smoking and general inability to wait and remain calm in waiting rooms. Provider barriers were largely described as problems in communication--with the client, the case manager, among providers, and across systems. Case managers at all five CMH agencies identified Medicaid spend down rules as a system barrier to adequate health care for these clients. They also described systemic problems in the lack of definition and boundaries in the role of case manager.

Aim #7: To examine congruence of data from various sources (e.g., client reports of physical health vs. reports in CMHA records, vs. claims data)

The data obtained for this project were derived from several sources. Clients were asked if they had ever been told by a doctor that they had a list of specific illnesses. The CMHA charts for these same clients were examined for documentation by health providers of physical health problems, and administrative claims data for these clients were examined for requests for payment for services delivered to these clients for specific physical health problems.

The analysis revealed the highest congruence between the client and chart as compared to the client and claims and chart and claims. Percent of agreement between the client, the chart and the claims data (all sources reported the condition or all did not report the condition) was calculated for six clinical diagnoses: cardiovascular and hypertension (68%), diabetes (74%), asthma (72%), COPD (87%), cancer (95%). In general, there is a high degree of congruence among the three sources of data, which indicates that clients with are fairly accurately reporting health problems when asked. If clients are erring, it is in the opposite direction, which means that these clients are not bringing health problems to the clinician's attention.

Study 2: A Study of Medicaid Enrolled Clients During SFY 1996, 1997, 1998

Many factors are believed to contribute to poorer health outcomes for persons with severe mental illness including poverty, poor health habits, and a lack of access to appropriate health care services. An understanding of these and other risk factors has been difficult for many reasons, but many of the primary problems for both the clients and researchers are related to the multiple systems that are used by this population. In order to get a clear picture of service access and use, multiple systems must be examined.

This study was designed to address these access and use issues by combining data from the mental health, substance abuse, and physical health sectors of the systems treating clients with SMD. The aim of this study was to describe health service use and cost for physical and mental health care for persons with SMD residing in Franklin County (Aim #5).

Research Design and Methods

Administrative claims data from the Franklin County ADAMH Board were merged with data from ODJFS. Two different study methods were used--the first was a cross-sectional design that examined use and costs during each of three years (SFY 1996, 1997, 1998). The second method was a longitudinal design identifying SMD, Medicaid enrolled clients in 1996, and following them for two additional years to determine their patterns of service use over time.

The analyses for this study were primarily descriptive. Chi-squares and *t*-tests were run to determine differences in means for each utilization category. Because the utilization dependent measures were examined as users/nonusers, logistic models were done. For costs, means for each year were calculated. Years were analyzed separately and no adjustment for cost inflation was done. With respect to the insurance variable, the primary analyses were completed using the three separate variables as independent measures--Medicaid only, spend-down, and Medicare cross-overs.

Findings

The SMD Medicaid group was over 60 percent female all three years and over 60 percent white in 1996 and 1997. Less than 10 percent of the subjects had a nursing home claim in any one year. Approximately one-fourth of the group also had Medicare and from 26 percent to 42 percent had a spend-down requirement. Over 80 percent of those enrolled in 1996 and 1997 were enrolled through a disability category, while this dropped in 1998 to 59 percent.

The findings from this work paint a picture of a population with an epidemic proportion of injuries, high utilization of acute care services, high costs for services, and minimal health maintenance and preventive services. These findings suggest a system that is failing to promote and assure the health of this chronically ill population.

Emergency department use is high. Approximately half of the subjects used the ED during any one year. Younger clients were more likely to use the ED than older clients. Part of this high utilization can be traced to an epidemic proportion of injuries in this group. Such health problems frequently require immediate care. However, notwithstanding this, there is little evidence in the data set that this major health problem is getting any systematic consideration. In fact, while it is likely that there is widespread recognition of the underlying relationship between these injuries and mental health issues, there is an alarming under reporting of mental health diagnoses. Many explanations of this are possible, from undetected or undiagnosed mental health problems to a belief that the physical health system ought only do that—treat the result of the injury not the cause.

Not only was there a high utilization of the ED, but a fourth of this group was hospitalized yearly, and 70 percent had an outpatient or office based visit. Medication claims reveal high utilization across the board, but most importantly in the area of episodic care. Moreover, it is important not to lose sight of the fact that this is a relatively young population--mean age in the mid-forties. Prescriptions filled for antibiotics and cold remedies suggest an episodic and acute focus of care. In spite of this utilization,

persons did not receive traditional health screens, including vision, dental checks, and for women, PAP smears, and mammograms.

As expected this utilization translates into a high cost that is increasing. The State of Ohio is currently paying, on average $12,000 per person per year for this care, significantly more than for most groups. While quality markers may be difficult to establish for this population, most would agree that the rates of preventive services seen in these findings are startling. Any system redesign must include a quality assurance component.

Implications for Staff and Consumers

Treating mental health problems in one system and physical health problems in another is not only expensive, but more importantly inadequate. Reimbursement policy should be developed that integrates payment for these services.

Systems must be developed that build in accountability for the services provided to this population. Currently, because of the many people involved, there is no way to hold providers accountable for the care they provide. Quality benchmarking for these providers must be instituted even though it will be a significant challenge. These benchmarks should include health promotion efforts such as smoking cessation, exercise, and weight management. These study findings suggest that the current levels of care fall well below any acceptable level recognized for other groups.

Providers need to be taught to listen to the health complaints made by these clients and consider the entire spectrum of health needs. The responsibility for the lack of health screenings in this group, in spite of health insurance coverage, falls collectively upon the health providers.

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ORIGIN AND CONSEQUENCES OF PHYSICAL AND VERBAL ABUSE AGAINST WOMEN IN THE CONTEXT OF SEPARATION AND DIVORCE

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Various legal reforms in recent years (e.g., no fault divorce legislation, joint legal custody, mediation, divorce/parent education) have assumed a high level of cooperative parenting between former spouses, and clinicians and researchers have noted that former spouse relationships are pivotal to overall post-divorce family functioning (Furstenberg & Cherlin, 1991; Seltzer & Bianchi, 1988). However, research also has suggested that many parents are unable to successfully coparent and experience substantial verbal and physical aggression during and after the marital dissolution process with numerous negative mental health outcomes, especially for women and children (Arias, 1999; Kahn, Welch, & Zillmer, 1993).

Demographic data clearly demonstrate the scope of partner violence surrounding marital dissolution. For example, while 10 percent of all women are divorced or separated, they represent 75 percent of battered women (Reihing, 1999). Although separation and post-divorce violence is usually preceded by marital violence, research has found that physical violence often is experienced for the first time at the point of separation or divorce (Arendell, 1995; Dobash & Dobash, 1992; Gordon, 1988). It is widely concluded that physical distance, separate residences, and legal restraining orders do little to prevent violence (Ellis, 1992).

In spite of the magnitude of this problem, little progress has been made in increasing our understanding of the dynamics of male abuse surrounding the divorce process and women's recovery and adjustment. Johnston (1994) has referred to the study of conflict following divorce as in its infancy, and the American Psychological Association (1994) notes that divorced women are not well represented in domestic violence studies.

Theoretical Rationale and Previous Work

No single theory or discipline has been adequate in explaining spouse abuse (Gelles, 1993), yet empirical efforts utilizing a combination of theoretical perspectives and multifactor models generally are lacking. Also, previous work largely has ignored verbal or emotional abuse even though the outcomes of such abuse can be as damaging and long lasting (Gavazzi, McKenry, & Jacobson, 2000; Reihing, 1999).

Research has identified numerous male psychological symptoms associated with domestic violence, especially more severe manifestations, e.g., depression, attachment disorders, anxiety and alcohol abuse. Dutton (1998) has documented the development of what he terms the “abusive personality” in male perpetrators, which is similar to Wallerstein and Kelly's (1980) psychological profile of men who are abusive after divorce.

From a socio-cultural context, gender theory situates violent male/female relationships within cultural conventions of femininity and masculinity. These men are seen as very much influenced by society’s messages that women are the problem, that men are superior and entitled to their privileged status within families and relationships, and that their anger is justified (Dutton, 1998). Thus, an increased

risk for violence has been associated with women's assertion of independence and men's loss of control as signified by separation and divorce (Arendell, 1995; Dobash & Dobash, 1992).

The post-divorce, binuclear parenting process presents a situation that has the potential to engender male violent behaviors toward the female intimate. From a social perspective, the male suffers from several stressors or life events associated with the divorce, including loss of children, loss of income, and loss of social support. Divorce also prompts shifts of gender relations in families, and as a result many men attempt to re-establish a dominant masculinity in terms of their power, authority, and control (Catlett & McKenry, in press). Thus, given the changes and losses associated with separation and divorce, this study addresses the extent to which a man's violent or verbally abusive response is influenced by gender attitudes, social support, attachment style, psychological symptoms, and previous history of violence.

For women in abusive relationships, research traditionally has focused on their culpability in these relationships (Barnett, Miller-Perrin & Perrin, 1997). However, increasingly researchers are moving away from this "blaming the victim" approach to addressing questions about the mental health implications for women as a consequence of their abuse, and perhaps even more important, how women at risk for relationship violence prevent or extricate themselves from such relationships.

The mental health consequences of abuse for women are well documented, and they include learned helplessness (Shephard, 1990; Walker, 1984), post-traumatic stress syndrome (Barnett, Miller-Perrin, & Perrin, 1997), or battered women syndrome (Walker, 1984). For these women, depression, anxiety, passive coping strategies, cognitive confusion, avoidance behaviors, and self-blame may leave them feeling psychologically disabled or even trapped. In some respects divorced women may be at a heightened risk of mental health difficulties given that they already are laboring under substantial emotional stressors (Kitson, 1992).

In general, many women require formal intervention such as mental health services to work through the grief-loss of divorce and recover from a violent and/or emotionally abusive relationship. (Kitson, 1992; Walker, 1984). Therapy is often needed to change faulty belief systems that support the patriarchy and men's right to control even after divorce. Support groups or other forms of systematic support also are seen by the mental health community as very helpful in enhancing the coping capacity of battered and divorced women (Tan, Basta, Sullivan, & Davidson, 1995). These benefits notwithstanding, women at risk for violence often are hesitant to seek counseling or other means of formal support (Barnett et al., 1997).

Hypotheses

Based on this review of salient literature and theoretical contexts, the specific hypotheses to be tested are as follows:

Ho 1: Men's report of coparenting conflict will be (a) positively related to their previous marital violence;
(b) negatively related to their satisfaction with the legal divorce; and (c) positively related to their attachment to their former spouse.
Ho 2: Men's previous marital violence will be negatively related to their satisfaction with the legal divorce.
Ho 3: Men's coparenting conflict will be (a) positively related to separation/post-divorce abuse/violence and (b) negatively related to psychological adjustment; these relationships will be

moderated by their history of their marital violence, social support, and attachment to their former spouse.

Ho 4: Men's psychological adjustment will be negatively related to their level of separation and post-divorce partner abuse/violence.

Ho 5: Women's psychological adjustment will be positively related to an "independence" cluster of variables: attachment, economic self-sufficiency, psychological mastery, gender ideology, and self-esteem.

Ho 6: Women's independence factors and report of spousal violence while married will be positively related to coparenting conflict.

Ho 7: Women's report of coparenting conflict will be positively related to separation/post-divorce violence.

Ho 8: Women's reports of separation/post-divorce abuse/violence will be negatively related to their psychological adjustment; this relationship will be moderated by (a) their social support and (b) access to and satisfaction with mental health services.

Sample

The sample population was selected from the divorce records of all parents of children under age 18 who divorced or dissolved their marriage in the past two years in Franklin County and Marion County, Ohio. The sample consisted of 129 males and 147 females who were surveyed by mail to obtain quantitative data for statistical testing of the hypothesized relationships. One-half of these individuals had a demonstrated marital history of spousal violence (as determined by record of police intervention, civil protection order, or self-reported allegation of abuse) or obtained a divorce (as opposed to a dissolution), indicating greater conflict and potential for violence. A subsample of 20 male and 20 female survey respondents who indicated violent behaviors or high levels of verbal aggression on the questionnaire were interviewed in-depth.

Demographically, the mean age of the men and women in the study was 38 and 34 respectively. The average age of marriage was 26 for men, somewhat younger for the women who had a mean age of 23. Both men and women had been married approximately 10 years and had been divorced a little over one year at the time of the study. Both men and women were separated about one year and three months before their divorce. Both men and women had an average of two children. Consistent with state and national data, the vast majority of the men and women had custody arrangements that were either sole maternal custody or joint custody.

Both groups were largely Caucasian, and the majority of men and women were divorced and single/noncohabiting. A little less than one-third of the men and women were either cohabiting or remarried. The vast majority of the men and women had graduated from high school, and a majority of the men and women had some post-high school education.

Data Collection

The study combined qualitative and quantitative research methods. For the quantitative analyses, 947 potential participants were surveyed, and only 276 returned useable questionnaires (a response rate of 29%). These individuals were asked to complete a questionnaire that contained only quantitative instruments and demographic questions. These participants were offered $20 for their involvement in the study. These potential respondents were sent a questionnaire, consent form, OSU payment form and return envelope. A reminder postcard was sent one week after the original packet of materials was sent.

Qualitative data were collected in an effort to capture the depth and complexity inherent in individual experience. The qualitative data for this study were collected through in-depth interviews; those interviewed were a subsample of the survey respondents who indicated separation and/or post-divorce violence or verbal aggression and who indicated a willingness to participate in this second phase of the study. These individuals were contacted by telephone and offered $50 for their participation.

Each in-depth interview focused on (1) conflict/violence in marriage; (2) conflict/violence in divorce; (3) perception of the legal system surrounding divorce; (4) issues of controversy, i.e., post-divorce parenting and financial issues; (5) relationship with children; (6) conflict management style; (7) emotional adjustment to the divorce; and (8) necessary support and interventions.

Quantitative Instrumentation

A sociodemographic questionnaire was used to determine age, race, years married, length of marriage, custody arrangement, number and age of children, socioeconomic status, and present marital/relationship status. In addition, several instruments were used, chosen for their psychometric properties and their relevance to gender and family stress theory (see Table 1).

Table 1. Instruments Used in Study

Construct	Instrument	Reference
Alcohol use	Short Michigan alcoholism screening test	Selzer (1971)
Attachment	Relationship style questionnaire	Griffin & Bartholomew (1994)
Coparental conflict	Quality of coparental comm. scale	Ahrons (1981)
Economic independence	Perceived level of economic independence	P.I.'s
Gender role ideology	Personal attributes questionnaire	Spence & Helmreich (1978)
Male violence toward former spouse	Revised Conflict/tactics scale	Strauss et al. (1996)
Mental health services	Mental health svcs used to cope w/divorce	P.I.'s
Psychological adjustment	Psychiatric symptom checklist 90 /Brief symptom inventory	Derogatis (1992)
Psychological mastery	The Mastery scale	Pearlin et al. (1981)
Satisfaction with legal divorce	Legal divorce scale	Stone (1994)
Self-esteem	Self-esteem scale	Rosenberg (1965)
Social support	Inventory of social supportive behaviors	Barrera et al. (1981)
Sociodemographics	Demographic & background questions	P.I.'s

Descriptive Data Results

Before turning to an examination of the four abuse outcome measures, it is important to note that over two-thirds of the men (69%) and seven-eighths of the women (84%) reported male initiated physical violence in their marriages, substantially higher than national figures would indicate. These findings support existing data that clearly demonstrate the scope of the problem of marital violence for divorcing couples. In terms of the four male aggression outcome variables, i.e., (a) separation verbal abuse; (b)

separation physical violence; (c) post-divorce verbal abuse; and (d) post-divorce physical aggression, some significant gender differences in the perception of male aggression were indicated. In terms of male separation verbal aggression, both men and women reported an incidence of male emotional abuse of approximately 90 percent. Regarding male separation physical abuse, however, gender differences in perceptions were demonstrated; only 40 percent of the men reported engaging in separation physical violence toward their spouse, yet 53 percent of the women reported that they were physically abused by their husbands during this time. With respect to violence and verbal abuse post-divorce, both men and women reported considerable post-divorce verbal aggression; 61 percent of men and 69 percent of women made such reports. The male and female accounts of post-divorce physical violence diverged more substantially, with only six percent of the men admitting to physically abusing their former spouses, and 18 percent of the women reporting their physical abuse at the hands of their former husbands.

Several contextual highlights are worthy of particular attention when considering the relevance of these descriptive data. First, those men and women who obtained a divorce rather than a marital dissolution were significantly more likely to have reported (a) marital violence; (b) separation verbal aggression and violence; and (c) divorce verbal aggression and violence. Second, of the 80 men and 72 women who indicated that they did not experience marital violence, about 30 percent of both the men and women reported experiencing separation physical violence.

These incidences of violence and verbal abuse would have been higher if we had included divorce-related abuse in the quantitative measure. Specifically, our qualitative data have indicated that children were often used by the fathers as a means of threatening or punishing former spouses; also, stalking was sometimes used to threaten or harass former wives.

Testing of Hypotheses

Four male aggression outcome variables--(a) separation verbal abuse; (b) separation physical violence; (c) post-divorce verbal abuse; and (d) post-divorce physical aggression--were examined in this study. The model with post-divorce verbal abuse as the outcome variable is depicted in Figures 1 and 2. Pearson r was used to test the post-divorce verbal abuse outcome. The men's and women's models using two of the other aggression outcomes (separation verbal abuse and separation physical violence) were almost identical with few exceptions as discussed below. Because only a small minority of the men reported post-divorce physical violence, that model was not tested. The relationships that emerged from the analysis for males generally supported the hypothesized relationships. In particular, coparenting conflict was positively related to post-divorce verbal abuse, and negatively related to men's psychological adjustment. Moreover, men's androgyny and social support reduced the strength of the relationship between coparenting conflict and abuse; conversely men's alcohol use and continued attachment to the former spouse increased the strength of that relationship. The hypothesized negative relationship between men’s post-divorce emotional abuse and psychological adjustment was not demonstrated.

With respect to the two additional outcome variables, the models using separation verbal abuse and separation physical violence were almost identical to the model discussed above, with a few exceptions. For instance, separation verbal abuse was significantly related to coparent conflict ($r = .238$, $p < .01$) and was significantly moderated by men's gender ideology, social support, attachment, and men's alcohol use. In contrast to the model discussed above, separation emotional abuse also was related to psychological adjustment $r = .38$, $p < .01$). This same pattern of significant relationships was found for separation physical abuse as well.

Findings pertaining to the women's ability to avoid or escape from abusive relationships in the process of divorce adjustment largely support the hypothesized model, using post-divorce emotional abuse as the abuse/violence outcome variable (Figure 2). Specifically, the paths between marital violence and coparenting conflict (r = .285, p < .01), and between coparenting conflict and post-divorce verbal aggression (r = .378, p < .01) were supported. Also, experiencing post-divorce emotional aggression was related to psychological adjustment. The variables constituting the women's psychological coping mechanisms were significantly intercorrelated, and three of them were related to coparent conflict, i.e., attachment, economic independence, and psychological mastery. Many of these psychological resource variables also were related to psychological adjustment, i.e., self-esteem, psychological mastery, economic independence, and secure attachment.

When other aggression outcomes were examined, i.e., separation emotional aggression, separation physical aggression, and post-divorce physical aggression, the general pattern of relationships remained the same. Several specific findings are worth noting here. For instance, while social support did not function as an interaction term, it was negatively related to three of the aggression outcomes, indicating the importance of social support to escaping aggression. Also, in a pattern similar to that with the men, coparental conflict was related to both separation physical violence and separation emotional abuse, but was not significantly related to divorce physical abuse, perhaps because of the small number of women who indicated such violence.

Discussion and Implications

The results of this study build upon existing data, and point to numerous implications for mental health intervention with divorcing and divorced families. Consistent with the research literature, the postseparation/post-divorce abuse/violence was a continuation of marital violence for most of these individuals, but for a sizeable minority, the violence was experienced for the first time after marital separation. Therefore, mental health practitioners should note the coparental family system dynamics as they work with the divorcing and post-divorce population. In particular, because of the extent of abuse and violence after divorce, even for those without a marital history of violence, better assessment devices need to be developed to help the courts determine risk for abusive behaviors in their formulation of copareting plans.

The qualitative findings suggest that post-divorce violence may be demonstrated by mechanisms not easily tapped empirically by traditional quantitative measures, including use of child to threaten or punish the spouse. Thus, in divorcing situations, mental health practitioners should be aware that children may also be at risk in coparenting families that are experiencing high levels of conflict.

Study results further indicated that men's violent and abusive responses after separation and divorce were intensified by their continuing attachment to their spouse, adherence to traditional male behaviors, and use of alcohol. Here the implication for mental health professionals would be to offer comprehensive treatments of men who are considered to be at risk for post-divorce abuse by dealing with issues such as alcohol abuse, relationship styles, and problems related to traditional gender roles. Group approaches might also be helpful since social support served an important moderating function. Informal social supports for men also may be helpful, e.g., Parents without Partners and other separation and divorce support groups.

In all but one type of abuse, i.e., post-divorce verbal abuse, male aggression was related to men's psychological adjustment. Also, in all cases, coparenting conflict was related to their psychological adjustment. Although these data are only correlational, the findings could suggest that ongoing conflict

can impair a successful divorce adjustment process. Ways to mitigate conflict related to divorce, therefore, should be pursued. Mandatory parent education programs, support groups, mediation as an option for dispute resolution prior to and even after divorce, and joint legal custody are some options that courts should consider in dealing with separation-related conflict. At the same time, however, when the father is seen to be at considerable risk for abusing his former spouse and children, these interventions might not be appropriate or would have to be modified.

Very few men mentioned using mental health services or other formal interventions during the separation or divorce. Most of the men relied on informal support for assistance during these transitions, especially family members, including girlfriends.

The findings pertaining to the women indicated that the "independence cluster" of psychological characteristics was very much related to both the level of coparenting conflict and psychological adjustment. Specifically, attachment to former spouse, psychological mastery, and economic independence were all significantly related to coparental conflict and psychological adjustment. Although self-esteem was not directly related to coparental conflict, it was related to psychological adjustment. Women's economic independence warrants particular attention, given its positive and negative impacts on post-divorce family circumstances. Women who were more economically self-sufficient were more likely to experience conflict with their former spouses. This relationship is consistent with feminist theoretical interpretation that recognizes that women's economic independence may threaten the man's primary power base as family economic provider. Yet while economic self-sufficiency might have resulted in more conflict with the former spouse, it also was related to psychological adjustment. This finding along with the importance of the "independence" cluster of variables points to the utility of mental health interventions that include career counseling, job training, and financial management opportunities in addition to traditional therapeutic approaches.

Interestingly, social support and mental health services did not influence the relationship between violence or aggression and psychological adjustment. Fewer than 20 percent of the women used any form of mental health service. Like the men, women drew on their families for most of the support they received during the divorce and separation period. Yet other studies have indicated that close to one-third of all women utilized some form of mental health service during the divorce process. Perhaps the women in this sample suffered from a lack of awareness of and/or access to mental health services.

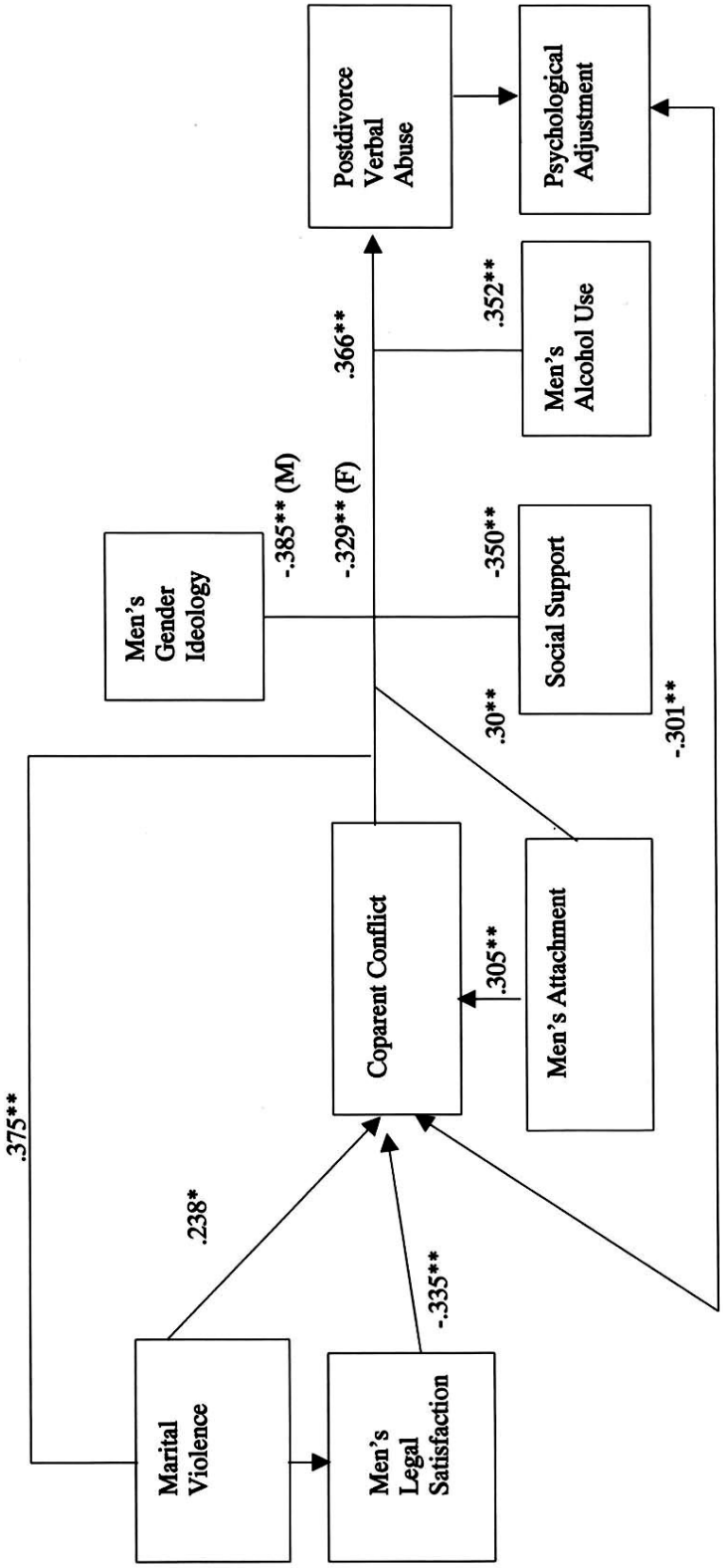

Figure 1. Origins of men's postdivorce verbal abuse.

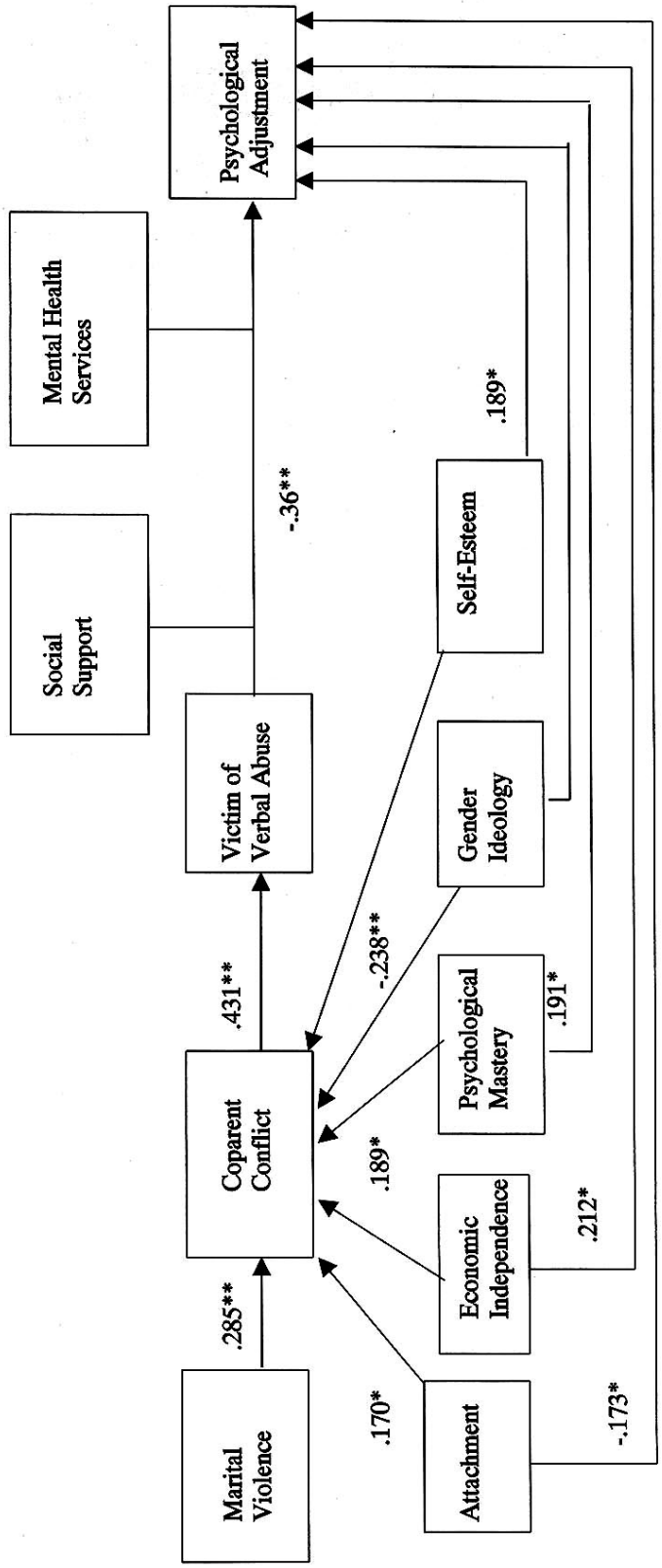

Figure 2. Consequence of postdivorce verbal abuse for women.

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COPING WITH CONFLICT DURING THE INDIVIDUATION PROCESS: INFLUENCES OF SCHOOL AND FAMILY CONTEXTS ON ADOLESCENT ADJUSTMENT

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This study bridges the gap in existing literature by assessing family and school environments and their links to adolescents' management of the individuation process, as well as the developmental outcomes of externalizing and internalizing behaviors, academic achievement, and peer group membership. Participants included 554 students ranging in age from 11 to 18 years. Results indicate that levels of separateness and connectedness of the family were related to how adolescents coped with conflict. How individuals coped with conflict in the family was related to adolescent adjustment and developmental outcomes. Direct effects were found between parent differentiation, school differentiation, and the adolescent outcomes of grade point average, absences, disciplinary actions, internalizing and externalizing problems, and peer group membership. Parent-adolescent differentiation was linked to avoidant coping, as well as to a higher sense of peer group membership, fewer internalizing and externalizing problems. The newly developed construct, school differentiation, was highly predictive of all six outcome variables. Key findings support the Environmental Congruence Hypotheses. Adolescents who perceived matched high levels of differentiation in family and school were more likely to show positive academic and mental health outcomes, including higher grade point averages and a sense of peer group membership, as well as fewer internalizing and externalizing problems. Finally, adolescents experiencing low family and low school differentiation levels had the lowest academic performance and sense of peer group membership as well as the highest internalizing and externalizing problems.

Theoretical Underpinnings and Research Questions

> *Imagine a child who at home is given opportunities to express viewpoints, is encouraged to express feelings (either bad or good), is given privacy, and is taught to think and speak for him or herself. Additionally, the child and parent feel close to each other, like to do activities together, consult each other on decisions, and are able to ask each other for help when needed. During conflictual situations, family members respect each other's opinions, listen, and cope with these difficulties in a problem-focused way.*

This child's environment is fostering a healthy sense of individuation – the biopsychosocial process of an individual understanding, defining, and managing one's self as separate and distinct within one's relational context. As shown by the example and in opposition to common myth, healthy individuation is fostered by close and not distant relationships in the family. Within the above scenario are examples of separateness and connectedness; two family differentiation constructs which are important to the process of individuation. Unlike individuation, which is the renegotiation of psychological dependence on others, differentiation is a system phenomenon, which focuses on transactional and adaptive processes of distance regulating behaviors. A family must establish boundaries for the development of individuality (separateness) and intimacy (connectedness). These boundaries aid in the movement toward or establishment of a relational environment in which development and growth occurs.

One source of evidence that the individuation process is of heightened salience is the occurrence of parent-adolescent conflict (Steinberg, 1990). Smetana (1988) argues that conflict is a way in which parents and adolescents redefine family systems' boundaries (i.e., rules, events, and regulations) as the adolescent strives for autonomy. When there is conflict, it suggests there are changes in system equilibrium produced by differences of opinions or opposing needs and goals. Through the negotiation of conflict, the tolerance levels for separateness and connectedness shift as the adolescent develops in an atmosphere conducive to expression of differing viewpoints. Of additional importance is how this negotiating of boundaries occurs, or more specifically how adolescents manage or cope with conflict during the individuation process. Coping is "a process of managing demands (external or internal) that are appraised as taxing or exceeding the resources of a person" (Lazarus & Folkman, 1984).

The way adolescents cope with family conflict represents how confident they feel to assert their separateness or risk loss of connection in the process of addressing disequilibrium in the system. In the present study, four possible coping strategies represent an adolescent's willingness and ability to renegotiate boundaries of separateness and connectedness in the family system. For example, an adolescent who utilizes an active coping strategy to handle conflict works toward a solution, thus representing respect for viewpoints as well as listening to others' input in the situation. This is most likely to happen in a family that tolerates both separateness and connectedness. On the other hand an adolescent who avoids the problem or utilizes avoidant coping may be adapting to a family that is disengaged from each other, thus reflecting a lack of closeness and respect for other's viewpoints, or where arguing the conflict might deeply threaten a disruption in connection. A third example is emotion-focused coping. An adolescent who is raised in an overly connected family that does not tolerate conflict, (a symbol of separation of the individual family member through differing viewpoints), may deal with problems in an emotion-focused manner. Thus this strategy would only alleviate feelings surrounding the problem and would not alter the source of stress. The source of stress might be an oppositional opinion with a family member, and any attempt to alleviate the stressor would be viewed as an act of separation. Finally a child, who utilizes the acceptance coping strategy may represent a willingness to respect the family's hierarchical structure and furthermore conform to tolerance levels for separateness and connectedness which are not shifting as the child develops.

In short, an appropriate balance of separateness and connectedness in the relational context promotes an autonomously functioning adolescent who is able to cope with conflict, one behavioral manifestation of the individuation process. However children do not develop independently in the single relational context of the family. A child growing up spends a substantial amount of time in at least two different relational contexts: the family and the school. As Coleman pointed out in the 1960s, the school is a main context for the psychosocial development of teenagers in America. Additionally, over fifteen years ago Hill (1983) argued that the school, even though a primary context for the developing adolescent, is the most neglected area in contextual developmental research. The interaction between levels of separateness and connectedness has yet to be explored as psychosocial domains of the school environment that influences adolescents' adjustment. In some cases, adolescents may be experiencing a developmental mismatch between separateness and connectedness in the family and school in relationship to their developing need for autonomous functioning. Imagine the same child in the above scenario who goes to school approximately eight hours a day for 180 days a year in the following environment:

> *Teachers and administrators demand respect for authority. Input from students about rules is not tolerated. Control, conformity, and obedience are demanded. No discussion occurs about expectations of behavior. Reasoning is not coordinated with discipline. Additionally students do not feel a sense of belonging to the school, do not feel accepted, do not feel anyone respects or notices their skills or viewpoints, and finally students do not participate in school activities and functions.*

In the above school scenario, separateness is not tolerated, while at the same time connectedness to the school or a sense of school membership is not occurring. As can be seen by comparing the family scenario with the school scenario above, this child is experiencing a lack of environmental congruence regarding the concepts of differentiation or tolerance levels of separateness and connectedness in the two relational contexts of the family and school. One main question of the present study was, "Does this environmental incongruence create a state of tension for the developing adolescent and thus have negative effects on the child's academic and psychosocial outcomes?"

It has been discussed that heterogeneity of experience with the environment or environmental incongruency may lead to negative outcomes for the adolescent (Bronfenbrenner & Ceci, 1994). The environment fit perspective emphasizes the need for the fit between the family's balance of separateness and connectedness and the developing adolescent's need for autonomy and connectedness in the school context (Eccles et al., 1993; Hunt, 1975). Links between one sector (i.e., the family) and another (i.e., school) need to be explored for the congruence between ecological niches. Furthermore, research needs to explore ways in which ecological niches differ from one another and how they are linked to adolescents' academic achievement and mental health behaviors.

In summary, the importance of understanding family and school differentiation levels and their relationship to how late adolescents cope with conflict during the individuation process has been emphasized, but this area has been virtually ignored in empirical studies in early and middle adolescent populations. The present study investigated the interaction of family and school contexts in relationship to the individuation process of adolescents ranging in age from 11 to 18 years. Despite the salience of family and school support for academic achievement, the coordination of these two systems and their relationship to academic outcomes during adolescence has virtually been ignored in empirical studies. Further, the family-school connection has yet to be linked to mental health behaviors of adolescents.

Differentiation levels of the family and school contexts were assessed utilizing measures of connectedness and separateness or autonomy-granting behaviors. It was assumed that conflict with parents is a normative manifestation, as well as a necessary stimulus, of the individuation process during adolescence. How adolescents cope with or manage conflict with their mothers and fathers was used as a proxy for examining how capable adolescents were of handling the conflicts between separateness and connectedness during the individuation process. How coping mediated the relationship between the dimensions of separateness and connectedness in two primary developmental contexts of adolescence and individual developmental correlates and adjustment outcomes was important to assess. The present study assessed the specific adjustment outcomes of: academic performance (e.g., G.P.A., school absences, and school disciplinary actions), externalizing and internalizing behavior problems, and peer group membership. Specifically, the study tested the following hypotheses:

1. Relational Hypothesis: High levels of autonomy-granting and connectedness in family and school are related to lower internalizing and externalizing scores, a higher sense of peer group membership, and higher levels of academic achievement.
2. Environmental Congruence Hypothesis: Adolescents whose perceptions of differentiation in family and school contexts are matched have fewer externalizing and internalizing problems, higher academic achievement, and a positive sense of peer group membership.

Sample

Participants for this study were recruited from seven school districts and one urban minority scholarship program in Ohio. The participants included a cross-sectional sample of 554 middle school and

high school students who ranged in age from 11 to 18 years. The sample was representative of the larger surrounding community's demographics. The racial distribution of the sample was 55.8 percent white (*n* = 309), 35.7 percent African-American (*n* = 198), 1.1 percent Hispanic (*n* = 6), 0.9 percent Asian (*n* = 5) and 6.5 percent biracial (*n* = 36). Family structure was predominately two-parent (55.3%). The additional family structures included: step-parent homes (15.9%), single-headed households (23.9%) guardians/foster homes (1.4%), and parent romantic partner relationships (1.4%). The educational distribution was as follows: 6.1 percent No High School Diploma, 20.4 percent High School Diploma, 5.2 percent License or Certificate, 8.5 percent 2 to 3 Year Vocational Degree, 17.1 percent Bachelors Degree, 17.1 percent Masters or Professional Degree, 5.1 percent PhD/MD, and 14.8 percent of the sample did not provide background information on this variable. The sample was predominantly working class, thus representing the socioeconomically diverse group of the larger metropolitan areas from which the data were collected.

Measures

Questionnaires measuring background information, family differentiation (The Differentiation in The Family System Scale; Anderson & Sabatelli, 1992; FACES–III: Cohesion Subscale; Olson, Portner, & Lavee, 1985), school differentiation (The Psychological Sense of School Membership; Goodenow, 1993; Autonomy Granting Behaviors), coping with conflict (COPE; Carver, Scheier, & Weintraub, 1989), externalizing and internalizing behaviors (Youth Self Report; Achenbach, 1991), and peer group membership (The Group Identity Scale; Newman & Newman, 1993) were completed by the adolescents.

All participants of the study provided demographic information including age and social class information. This measure was designed to gather general information regarding the research participants. This information included (a) school and grade, (b) sex, (c) age, (d) ethnicity, (e) family structure, (f) parental education and (g) academic performance: G.P.A, school absences, and disciplinary actions in the past academic grading period.

The Differentiation in The Family System Scale was used to assess autonomy-granting behavior. The DIFS uses a circular questioning format to assess the individual's perception of how members of the family interact with one another for four family dyads: mother-to-adolescent, adolescent-to-mother, father-to-adolescent, and adolescent-to-father. The mother-to-adolescent and the adolescent-to-mother dyad were summed to create a mother-adolescent autonomy-granting variable. The adolescent-to-father dyad score was calculated in the same manner. Two of the eleven items include: "My father shows respect for my views," and "I show respect for my father's views (1 = never to 5 = always)." Cronbach's alpha reliability coefficients for the present sample were: 0.84 for relationships with mothers and 0.86 for relationships with fathers.

The Cohesion Subscale of FACES–III: Dyadic Form was utilized to assess parent–adolescent relationships (Olson et al., 1985). The Cohesion Subscale consisted of 10 items, altered to assess mother–adolescent and father–adolescent relationships separately. Scores for the mother-to-adolescent dyad and the adolescent-to-mother dyad were summed to create a mother-adolescent connectedness variable. Connectedness in the father-adolescent dyad was calculated in the same manner. Items were measured on a five-point Likert scale (1 = never to 5 = always) to assess the frequency of the behavior. Sample items include: "I can consult my father on my decisions" and "My father can consult me on his decisions." Cronbach's alphas for the present sample were: 0.91 for relationships with mothers and 0.93 for relationships with fathers.

The Differentiation Mother score was calculated by summing the mother-adolescent autonomy-granting score and the mother-adolescent connectedness score. The Differentiation Father score was calculated in the same manner.

The Psychological Sense of School Membership (Goodenow, 1993) is an 18-item scale designed to measure the sense of belonging in the school environment. Sample items include: "I feel proud belonging to this school," and "Students at this school are friendly to me." Items were measured on a five-point Likert scale ranging from 1 = not at all true of me to 5 = completely true of me. Cronbach's alpha reliability coefficient for the present sample was 0.89.

The Lohman School Autonomy Scale was designed for this study based upon other measures reflecting autonomy-granting behaviors during adolescence (Anderson & Sabatelli, 1992; Buri, 1991; Lee, Statuto, & Kedar-Voivodas, 1983, Trickett & Moos, 1995). Several family autonomy-granting scales and decision-making scales were reviewed. Items were reworded to reflect autonomy-granting experiences in the school. A list of autonomy-granting behaviors which reflected experiences in the school setting was created. For example, students were asked whether they have input in classroom decisions. No existing measures reflect these concepts for the school environment. A 10-item scale was developed, with items measured on a five-point Likert scale ranging from 1 = not at all true to 5 = completely true. Items include decision-making regarding where to sit, class work, homework, class rules, school policies, and disciplinary procedures. A test-retest reliability pre-test was conducted with 65 seventh graders. Students completed the 10-item questionnaire on a Thursday during class-time. Four days later, students completed the survey again. The alpha coefficients were: 0.72 for time one and 0.75 for time two. No significant differences were found in means using a paired samples *t*-test (Mean Time 1 = 5.2526, Mean Time 2 = 5.4760). The test-rest reliability coefficient was 0.815, $p < .000$. Cronbach's alpha for the present sample was 0.77. The School Differentiation score was calculated by summing the school autonomy-granting score and the sense of school membership or school connectedness score.

A theoretically based measure, the COPE, was used to assess the coping strategies of adolescents (Carver et al., 1989). First, individuals were asked to pick the most important conflict involving their mothers and the most important conflict involving their fathers from those that they have had to deal with within the last two months. Next, the individuals were asked to describe for each of these conflicts: what happened, where it happened, who was involved, and what made the event important to them. Adolescents were asked if this conflict was resolved and how it was resolved. Finally, the individuals were asked to rate how much each situation mattered to them on a five-point Likert Scale (1 = not al all to 5 = a great deal). The subsequent section of the COPE consisted of 60 items that divide into 15 subscales that assess conceptual and empirical aspects of cognitive, emotional, and behavioral coping. The 60 coping items represented the degree to which individuals would use a variety of coping strategies to handle the reported scenarios. The items were measured using a five-point Likert Scale (1 = I did not do this at all to 5 = I always did this). Two sample items are: 1) I would concentrate my efforts on doing something about it; and 2) I would make sure not to make matters worse by acting too soon. Cronbach's alphas for handling conflicts with mothers and fathers respectively are: active (.87, .87), avoidant (.83, .83), emotional (.83, .83), and acceptance (.78, .76).

The Group Identity Scale (Newman & Newman, 1993) was used to assess peer group membership in the present study. Adolescents were asked to identify possible crowds and groups in their school. Additionally, adolescents were asked about a primary source of belonging, "Are you in one of the groups you listed? If yes, which one?" and "How important is it for you to find a group that provides you with a sense of belonging?" A final set of 14 questions was used to assess peer group identification. This scale uses a five-point Likert scale (1 = not at all true of me to 5 = very true of me). Cronbach's alpha

reliability coefficient for the present sample was .80.

Adolescents completed the Externalizing & Internalizing Behaviors: Youth Self Report, a 112–item questionnaire to assess their perceptions of their behavioral problems (Achenbach, 1991). This measure has been standardized for adolescents ranging in age from 11 to 18 years. As recommended by Achenbach (1991) total raw scores were computed for internalizing and externalizing behaviors of the non–clinical sample. Cronbach's alpha reliability coefficients for the present sample were as follows: Externalizing subscales: .91 for males and .88 for females; Internalizing subscales: .92 for males and .89 for females; .96 for males and .94 for females.

Procedure

Participants were recruited through seven high schools and middle schools, as well as one urban minority youth scholarship program. Parental consent was obtained through permission slips sent to the parents' home. Depending on school district preferences, letters were distributed one of two ways; 1) mailed to parents from the Primary Investigator and returned through the mail to the Primary Investigator with postage-paid envelopes and 2) sent home with students and returned to the Principal Investigator to a school office by students the following day(s). For returning permission slips and completing the study, adolescents were given a full size candy bar. To provide additional incentives, adolescents completing study measures were entered into a drawing. One in every 25 students was rewarded with a $25 gift certificate to a local area shopping mall.

Relational Hypotheses Results

The Relational Hypotheses stated that separateness and connectedness in the family and school contexts, as well as adaptive coping strategies, would predict fewer externalizing and internalizing behavioral problems and higher academic achievement and peer group membership. To test the hypotheses a Structural Equation Model was performed to assess the mediational nature of the Relational Hypotheses. Structural Equation Modeling procedures provide a better estimation of fit to the sample's data only if complete data are used. To account for the sex differences in each of the four parent–adolescent dyads, subsequent structural equation analyses were tested utilizing the following groups: mother–daughter, mother–son, father–daughter, and father–son. If an adolescent did not have complete data for this relationship his or her scores were eliminated from the analyses. Of the 217 males, 206 had complete data for mothers and 164 had complete data for fathers. Of the 337 females, 317 had complete data for mothers and 229 had complete data for fathers.

To conduct a group comparison in AMOS 4.0, a simultaneous group analysis is conducted. This single procedure estimates parameters and tests hypotheses about multiple groups in one single analytic procedure. Data for each of the dyads (i.e., mother–daughter, mother–son, father–daughter, and father–son) were fitted to one relational form model using the statistical program, AMOS 4.0. Specifically the Structural Equation Model was tested to see if the data fit the model while allowing the path coefficients and error terms to be free to vary for all four groups. A mediational model did not represent the best fit of the data. A model which included direct school effects, as well as indirect and direct family effects was the best fitting model ($\chi^2 = 90.197$, $df = 36$, $p < .00$; χ^2/df ratio = 2.51; GFI = .98; AGFI = .87; RMSEA = .04). Within each model, disturbance terms for the endogenous variables of coping strategies were correlated with each other. Additionally the disturbance terms of the academic outcomes variables were correlated with one another, as well as the disturbance terms of the mental health variables.

In the above model an identical path structure was used for the four groups that allowed for different parameter values. Next, to test for group differences a Chi-square difference test was used to determine if the structure of the model was the same for all of these groups. The path coefficients were constrained to be invariant between all four groups, and the Chi-square for the hypotheses form model and the path invariant model were compared. The difference test was significant (χ^2 difference of 152.67, with 120 degrees of freedom, $p < .01$), suggesting that the path coefficients between the groups were not the same. An additional model was computed in which the error terms were constrained to be invariant as well. The Chi-square of the constrained path model was then compared to the final constrained model. The Chi-square difference test resulted in a significant loss of fit (χ^2 difference of 5348.248 with 85 degrees of freedom, $p < .01$), suggesting that the disturbance terms of the equations were not equal across the groups. These Chi-square difference tests suggest that the path coefficients and error terms were different for at least one of the four groups tested (i.e., mother–daughter, mother–son, father–daughter, and father–son).

Key findings that supported the Relational Hypotheses were found. It must be noted that a predicted mediational model was not supported and furthermore parent differentiation did not account for a large amount of variance in coping strategies employed by adolescents. In general, it was shown that family differentiation was related to how adolescents coped with conflict during the individuation process. How individuals coped with conflict in the family was also related to adolescent adjustment and developmental outcomes. Specifically in the models, parent-adolescent differentiation was linked to avoidant coping. Furthermore parent-adolescent differentiation was linked to a higher sense of peer group membership, lower internalizing behavior problems, and fewer externalizing behavior problems. School differentiation was found to be highly predictive of grade point average, school absences, school disciplinary actions, internalizing behavior problems, externalizing behavior problems, and peer group membership. It was generally found that the maladaptive coping strategy of avoidant coping was linked to higher amounts of internalizing and externalizing behavior problems, a lower sense of peer group membership, and lower grade point averages. Likewise emotion-focused coping was linked to more internalizing and externalizing behavior problems. Full models can be obtained by writing the first author.

Environmental Congruence Hypotheses Results

To test the Environmental Congruence Hypothesis, differentiation scores of the mother, father, and school systems were grouped as high, moderate, and low. Adolescents who scored on the same summed level of differentiation across both contexts were coded as matched. For example, adolescents who have high differentiation with mothers and high differentiation in the school system were coded as matched. On the other hand, adolescents who have high mother differentiation but low school differentiation were coded as mismatched. Five categories were created to represent environmental congruency: 1 = mismatched levels of differentiation (i.e., school high and parent low), 2 = mismatched levels of differentiation (i.e., parent high and school low), 3 = matched levels of low parent and school differentiation, 4 = matched levels of moderate parent and school differentiation, and 5 = matched levels of high parent and school differentiation. Utilizing the matched and mismatched coding schemes helped to assess the impact of environmental congruence on the six adolescent outcome measures. The Environmental Congruence Hypothesis was assessed through MANOVA procedures. Analyses were carried out to determine if matched environments were less stress producing and more beneficial for adolescent academic achievement and mental health behaviors. Two MANOVAS were conducted, one for relationships with fathers and one for relationships with mothers.

Significant main effects were found for mother-school differentiation congruence and for father-school differentiation congruence. Cell size was small ranging from thirty-one to ninety-eight, thus

findings must be interpreted with caution. Significant main effects were found for the model including mothers: grade point average (df = 4, F = 8.074, p < .000); absences (df = 4, F = 1.789, p < .131); disciplinary actions (df = 4, F = 3.901, p < .004); peer group membership (df = 4, F = 19.205, p < .000); internalizing behavior problems (df = 4, F = 11.150, p < .000); and externalizing behavior problems (df = 4, F = 12.749, p < .000). Significant main effects were found for the model including fathers: grade point average (df = 4, F = 8.509, p < .000); absences (df = 4, F = 3.864, p < .005); disciplinary actions (df = 4, F = 1.531, p < .193);

peer group membership (df = 4, F = 23.291 p < .000); internalizing behavior problems (df = 4, F = 13.591, p < 000); and externalizing behavior problems (df = 4, F = 15.464, p < .000).

Using Tukey's post hoc analyses and assessing the plots, significant relationships were found. Key findings support the Environmental Congruence Hypotheses which states that children whose perceptions match with regard to differentiation levels of family and school contexts would have fewer externalizing and internalizing behavior problems, have greater academic achievement, and have a sense of peer group membership. In general, experiencing high family and high school matched differentiation levels was most predictive of positive academic and mental health behaviors, including higher grade point averages and peer group membership, as well as fewer internalizing and externalizing behavior problems. Finally, adolescents experiencing low family and low school differentiation levels had the lowest academic performance and sense of peer group membership as well as the highest internalizing and externalizing behavior problems.

Discussion

The Family Context and the Individuation Process. The current knowledge base regarding appropriate balances of separateness and connectedness has been developed from empirical studies of clinical samples. Clinical literature has postulated a curvilinear relationship by distinguishing between three levels of differentiation: low, moderate, and high. At each extreme are enmeshment and detachment. It must be noted that in nonclinical samples this curvilinear relationship has not been found to hold. A linear relationship has been described, with higher connectedness scores reflecting more optimal and beneficial outcomes for family members (Anderson & Gavazzi, 1990; Cumsille & Epstein, 1994). In the present study, a tri-level split was included to distinguish between the possible curvilinear difference in the study variable of differentiation. Supporting past non-clinical samples, a linear relationship was found between adolescent mental health and academic outcomes for all three differentiation constructs: differentiation with mothers, differentiation with fathers, and school differentiation.

Differentiation levels were also linked to coping with conflict during the individuation process. As hypothesized, it was not shown that high levels of connectedness in the family were linked with more active coping strategies. Supporting the hypotheses, it was also shown that low levels of connectedness and separateness in the family were linked with more avoidant coping strategies. Thus if a family has low levels of connectedness (i.e., disengagement) or low levels of autonomy-granting behaviors (i.e., enmeshment), adolescents do not engage in conflict with parents which is a normative manifestation process of individuation. Ignoring conflict in addition to low levels of connectedness and autonomy-granting experiences may create an antagonistic effect, and therefore thwart the individuation process. These relationships need to be explored in a longitudinal-sequential study to assess if the individuation process is actually delayed for adolescents who experience extreme levels of separateness and connectedness with their parents.

The School Context and the Individuation Process. Over 30 years ago Hill pointed to the fact that the school was a primary ecological niche of the adolescent period. Adolescents spend several hours a day

in the school system, but how the school shapes the psychosocial development of adolescents has been ignored in research. As discussed earlier, autonomy is influenced by experiences, opportunities and boundaries given to and placed on the developing adolescent in a variety of social organizations and contexts. Thus a significant strength of the present study is the assessment of the school system in terms of levels of separateness and connectedness.

As a proxy for the individuation process, adolescents detailed how they coped with conflicts with their parents. During the process of individuation adolescents learn to manage the demands of being connected yet remaining separate from relational contexts. In the present study two relational contexts of the family and school were investigated. Thus it was hypothesized that school differentiation would influence the process of individuation as represented by coping with conflicts with mothers and fathers.

Findings from the correlational analyses were minimal. High levels of connectedness in the school were only linked to more active coping strategies with mothers. High levels of separateness in the school were correlated with more active coping for relationships with mothers, but not with fathers. The total school differentiation score was significantly linked to fewer absences, internalizing behavior problems, and externalizing behavior problems, as well as higher grade point averages and a sense of peer group membership. These findings represent the Relational Hypotheses in that school differentiation was not linked to coping strategies of the individuation process. In the Relational Model, school and parent differentiation were directly linked to outcomes, but parent differentiation was the only contextual correlate linked to coping. Thus the hypothesized mediational Relational Hypotheses was not confirmed. Individuation is primarily discussed as the biopsychosocial distancing of the adolescent from his or her parent. Thus the process is primarily influenced by separateness and connectedness to parents or parent differentiation rather than school differentiation.

As stated before, coping did not represent a mediational process in the model. Thus indirect as well as direct effects were found between parent differentiation, coping, and adolescent psychosocial and academic outcomes. Coping with conflict as measured in the present study may not have captured the complexity of the mediational process of individuation. Therefore this may point to why only a minute amount of variance was accounted for in coping strategies by parent differentiation. Coping with conflict may not accurately have reflected the mediational nature of the individuation process. Furthermore it may be that adolescents emulate responses to conflict they observe (i.e., modeling), rather than fostering adaptive or maladaptive coping strategies through environments which are tolerant or have a lack of tolerance for separateness and connectedness. Moreover, process can not truly be assessed in a static cross-sectional study. Thus a longitudinal-sequential design utilizing Structural Equation Modeling with Growth Curve Analyses may best capture the developmental trajectory of the individuation process.

To account for the sex differences in each of the four parent–adolescent dyads, Structural Equation Analyses were performed utilizing the groups: mother–daughter, mother–son, father–daughter, and father–son. Chi-square difference tests showed that there were significant gender differences apparent in the Relational Model. Several articles have supported the difference in the four parent-adolescent dyads which exist in the family system. (Gjerde, 1986; Hauser et al., 1987; Younnis & Smollar, 1985). It has been supported in previous literature that females feel closer to their mothers than do males. Males in past literature report feeling close to their mothers but fail to have the same level of joint activity as mother-daughter relationships. In the present study, males felt closer to fathers than females. This supports the existing literature that states the female-father relationship tends to be the outlier in comparison to the other three sex dyads in the family. The sex differences found have implications for researchers and mental health professionals. First adolescents' relationship with their mothers and fathers should not be assessed at the parent level. For example, " Do you feel close to your parents?" Utilizing the term parents

does not differentiate between differences, which occur among the four dyads: mother–daughter, mother–son, father–daughter, and father–son. Mental health professionals working with families should also be aware of the dyadic sex differences and their influences on adolescent adjustment. Thus specific therapy techniques can be adapted to fit the relationship which is creating difficulty for the adolescent.

Family-School Connection. In general, adolescents experiencing high family and high school matched differentiation levels were most predictive of positive academic and mental health behaviors, including higher grade point averages and peer group membership, as well as fewer internalizing and externalizing behavior problems. Secondly, adolescents experiencing low family and low school differentiation levels had the lowest academic performance and sense of peer group membership as well as the highest internalizing and externalizing behavior problems. Thus not only is it important for parents to foster intimacy (i.e., connectedness) and individuality (i.e., separateness), the present study stresses the importance of tolerance levels for separateness and connectedness in both the family and school environments to adolescents' academic and mental health behaviors.

Implications for Mental Health Professionals. The findings from the Environmental Congruence Hypotheses have implications for educators and mental health professionals. First educators and teachers must acknowledge that the interaction of high levels of autonomy-granting experiences in combination with closeness and support is beneficial to adolescent psychosocial and academic outcomes. Thus school systems need to aid in the individuation process by fostering the separateness and connectedness dimensions adolescents are experiencing at home. Many educational administrators and teachers focus on control without warmth; as supported by parenting literature, this can be detrimental to adolescent adjustment (Lamborn, Mounts, Brown, & Steinberg, 1991). Educators and teachers can foster these concepts by giving students input into classroom and school activities, discussion of rules and school policies, and finally giving direction and guidance in helpful and caring ways that promotes closeness or a sense of school membership**.**

Utilizing this information, mental health professionals can aid clients who are experiencing mismatched environments. Counselors or mental health practitioners should investigate the mismatch between the adolescent's home and school life. Utilizing these existing measures and through therapy sessions, practitioners can explore the dimensions of separateness and connectedness in the family and school systems. Practitioners can also obtain information from the adolescents' parents and teachers. Utilizing information from all three sources, the counselor can pinpoint where the discrepancy between the two environments is occurring. After reviewing these findings, the mental health practitioner should meet with the parents, teachers, and school counselor in a team meeting. Strategies that foster separateness and connectedness should be implemented. To foster autonomy within limits, the adolescent should be given the opportunity to explore these strategies. These techniques would lend to creating two matched environments which originally were awry, therefore promoting adolescent development.

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PRIMARY PREVENTION OF PSYCHOPATHOLOGY IN A HIGH RISK YOUTH POPULATION

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Epidemiological surveys indicate that anxiety disorders are among the most prevalent of all mental disorders in the United States (Weissman, Klerman, Markowitz, & Ouellette, 1989). Extrapolating from epidemiological studies, it may be conservatively estimated that 25 percent of the population of Ohio will suffer from clinically significant anxiety at some point in their lives with a 12-month prevalence rate of approximately 15 percent (Kessler et al., 1994).

Anxiety pathology is not only common but tends to be chronic and can be extremely debilitating. Forty to 60 percent of individuals with an anxiety disorder diagnosis report moderate to severe occupational role dysfunction and disability (Ormel et al., 1994). Anxiety disorders frequently lead to other adverse outcomes including increased health care utilization, increased risk for cardiovascular disease, substance abuse, antisocial behaviors, and suicide attempts. In addition to the immense suffering created by anxiety pathology, these disorders create a considerable public expense that includes treatment costs, lost work time, and increased utilization of non-psychiatric medical services. Annual costs easily exceed several thousand dollars per anxiety patient, suggesting that over 33 million dollars are spent or lost each year in Ohio in relation to treatment and occupational disability.

Billions of dollars are spent each year on secondary and tertiary prevention (i.e., treatment) of anxiety pathology in the United States (McNally, 1994). On the other hand, relatively little effort has been made in relation to the primary prevention of these conditions. Despite the fact that primary prevention is frequently touted as an important endeavor that has obvious public health benefits, such efforts are exceedingly rare. There are many reasons for the lack of primary prevention efforts but chief among them is an absence of two essential ingredients for primary prevention: (1) the failure to identify critical risk factors involved in the pathogenesis of the disorder of interest, and (2) an effective intervention that reduces the risk factors.

Our research laboratory has been involved in two related lines of research that appear to be extremely promising in relation to the primary prevention of anxiety pathology. One line of research is in the area of risk factor identification. In recent years, significant advances have been made in the identification of psychological risk factors for anxiety pathology. One risk factor in particular, termed anxiety sensitivity (AS), has been implicated in the pathogenesis of a number of psychiatric conditions including alcohol and substance abuse, major depression, panic disorder, social phobia, and posttraumatic stress disorder (Taylor, in press). AS refers to a set of beliefs about the negative consequences of experiencing physiological arousal. For example, individuals with high AS may perceive rapid heart beats as indicating an impending heart attack whereas someone with low AS would perceive rapid heart beats as merely unpleasant.

Laboratory studies and prospective naturalistic studies have provided converging evidence that individuals possessing high levels of AS are at increased risk for the development of these pathologies. The relationship between AS and these various conditions may be due to direct effects, mediational effects, or both. For example, evidence supports the idea that AS directly influences the development of

mood pathology and substance abuse. There is also evidence to suggest that AS results in anxiety pathology which serves as a gateway for the development of mood disorders and substance abuse. Findings from this literature are clear in suggesting that AS is an important risk factor for psychopathology.

Advances in the delineation of psychological risk factors have been complimented by equally encouraging progress in psychological treatment of pathological anxiety. Controlled clinical trials have established the short-term efficacy of pharmacological treatments as well as skill-based psychosocial treatment (termed cognitive-behavioral treatment) for pathological anxiety conditions. Although the success rate of both pharmacological and cognitive behavioral treatments are substantial, it is estimated that only 20 percent of anxiety sufferers receive treatment (Barlow, 1988). One recently reported and relevant treatment outcome finding is that changes in AS appear to be responsible for treatment response. In other words, it appears that AS mediates the relationship between treatment and recovery (Schmidt, Staab, Trakowski, & Sammons, 1997). Moreover, these findings suggest that a specific type of intervention (i.e., cognitive behavioral treatment) can dramatically reduce this risk factor (AS) in clinical populations.

In sum, pathological anxiety is extremely prevalent, debilitating, and often leads to secondary psychopathology. Recent successful identification of risk factors for anxiety and related pathologies suggests that reduction in this risk will prevent considerable suffering as well as significantly reduce expenses to public mental health systems.

The next logical step in this research agenda is to extrapolate knowledge derived from basic research and treatment outcome studies to develop effective primary prevention intervention programs in hopes of reducing risk among high-risk populations. To accomplish this, longitudinal intervention studies of non-clinical "at risk" samples are needed.

Specific aims of this project are: (1) to deliver a risk reduction or primary prevention intervention (compared to an education control condition) to a sample of high risk individuals who have not developed clinically significant psychopathology, and (2) to prospectively evaluate the effects of this intervention on the incidence of psychopathology during a 24 month follow-up period. The primary data of interest will involve a comparison of morbidity (e.g., clinical diagnoses) during the follow-up period between treatment conditions. Comparisons of outcome will also be measured along a broader spectrum of symptoms (e.g., level of distress and impairment in school/work, level of depression, alcohol use). The main study aims and hypotheses are delineated below:

Aim 1. Determine that a primary prevention intervention is effective in reducing the identified risk in a "high risk" youth population. It is hypothesized that the treatment intervention will significantly reduce the purported risk factor (AS),

Aim 2. Evaluate the efficacy of the intervention in the prevention of psychopathology. It is hypothesized that reduction in risk will yield lower incidence of pathology, impairment, and disability in the treated cohort.

There are very few primary prevention studies and only a handful of prevention studies targeting anxiety pathology. The current study is unique in several respects including: (1) its focus on one specific risk factor (i.e., anxiety sensitivity) that has been recently implicated in the pathogenesis of anxiety and related pathologies, and (2) its focus on "at risk" young adults (versus children) entering a critical age for the development of anxiety pathology. If the study hypotheses are confirmed, the study will have wide reaching implications for the prevention of a considerable public health problem.

Overview of Study Design and Methods

The primary prevention study includes both an experimental and prospective design. "At risk" participants (i.e., those with high anxiety sensitivity) with no history of anxiety disorders or other major psychiatric illness are being randomly assigned to a risk reduction (n = 200) or control condition (n = 200) and followed for 24 months. The primary data of interest involve the prediction of morbidity (e.g., psychiatric diagnoses) during the follow-up period based on experimental condition. However, outcomes are also conceptualized along a broad continuum of symptoms to increase the power of the design.

Established demographic risk factors are being targeted in recruitment (i.e., age, sex) to further increase the likelihood of morbidity during the follow-up period thus addressing one of the chief limitations of the cohort design (low power relative to a case-control design). More specifically, females (recruitment level of 70%) and adolescents and young adults (age range restricted to 14-20) are being selected for the present study. Females are at increased risk for anxiety disorders as are young adults (relative to children and older adults). It is notable that several other prospective studies of anxiety disorders using relatively small nonclinical samples and a similar follow-up time frame were sufficiently powered to detect incidence rate outcomes.

Prevention Intervention Description

The prevention intervention is a brief, psychoeducational presentation delivered using a computer followed by several minutes with a research assistant to clarify information and discuss follow-up procedures. The presentation is designed and delivered using Powerpoint. The presentation includes text, audio, and graphics and lasts approximately 40 minutes. The content of the presentation distills some of the core lessons discussed in CBT interventions for anxiety disorders. Essentially, the presentation discusses the nature and causes of stress and anxiety symptoms. It outlines the symptoms that people should pay attention to and symptoms that people do not need to worry about because they are ordinary stress symptoms. The presentation also describes interoceptive exposure. This procedure is designed to allow people to get used to unpleasant bodily sensations. The research assistant spends a few minutes further explaining interoceptive exposure along with the exercises we recommend that people conduct (e.g., hyperventilation). The overall goal of the presentation is to reduce the fear associated with unpleasant, stress related symptoms.

Preliminary Results

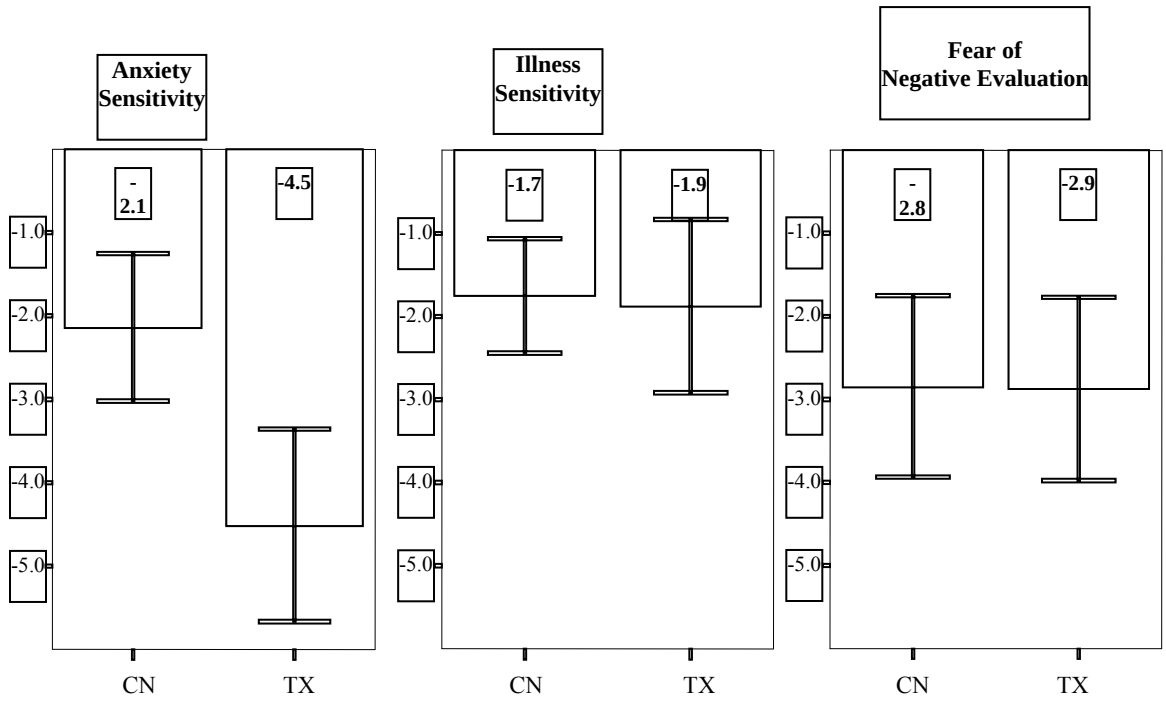
Some of this information has been presented elsewhere (Schmidt & Vasey, 2000a, 2000b). Currently, we are in the follow-up phase of the study. We have successfully enrolled 400 participants into the study. They have been randomized and we have completed about 250 one-year follow-up evaluations but only about 25 two-year follow-up evaluations. Here, we will summarize some of the key findings from the baseline assessment period and the one-year follow-up period.

Baseline Assessment Data And Immediate Response To The Intervention

Baseline data indicate that random assignment was successful. There were no demographic differences across these groups. There were also no group differences in level of psychopathology across the treatment and control groups. Of note, the average level of psychopathology was in the non-clinical range at baseline. This is consistent with the prescreening strategy such that participants with any history of an Axis I disorder were screened out. There were also no differences in the cognitive risk factor of interest (i.e., no differences in anxiety sensitivity). The mean anxiety sensitivity scores across both groups was approximately 16. These scores are somewhat higher than the average score for community control groups and are consistent with our recruitment strategy of enrolling participants with higher than average anxiety sensitivity scores.

Data on the intervention itself suggest that it was successful in changing the cognitive risk factor of interest (i.e., anxiety sensitivity). Moreover, changes in cognitive domains appear to be specific to anxiety sensitivity. This suggests that the intervention successfully targets the risk variable of interest and is not producing general or non-specific effects (see Figure 1 below).

Figure 1. Changes in cognitive domains following the AS reduction intervention.



Note. CN = Control; TX = Treatment

Three cognitive domains are represented in this figure including Anxiety Sensitivity, Illness Sensitivity, and Fear of Negative Evaluation. The left column in each figure is the control condition and the right is the treatment condition. There was a significantly greater change in anxiety sensitivity following the intervention amounting to about a five-point reduction. There was no differential effect on the other cognitive variables used for comparison purposes. These data suggest that this brief

psychosocial intervention can produce a specific cognitive change resulting in approximately a 30 percent reduction on the risk factor of interest.

Following the intervention, participants completed either a CO2 challenge or a Valsalva maneuver. Data from these procedures indicated that the intervention also produced reduced fear responding to a novel stressor. Thus, there is evidence to suggest that the intervention is having a desired effect, but the true test of this primary prevention program will occur during the follow-up phase.

One Year Follow-Up Data

The primary outcome variable of interest is the incidence of Axis I diagnoses during the follow-up period. Because of the preliminary nature of the data at this point, we have not conducted statistical analysis of the data. However, the data collected from the 12-month follow-up are consistent in indicating that the prevention intervention is having a positive effect. More specifically, there were a total of nine new Axis I diagnoses in the control group compared to only two new Axis I diagnoses in the treatment group. If these preliminary data hold for the entire follow-up, we will have demonstrated the efficacy of a brief intervention that could be widely used in schools to assist in the reduction of mental health problems.

Discussion

In sum, the proposed study represents a unique and important opportunity to greatly increase our knowledge regarding primary prevention of psychopathology. As we have noted, this type of study is rare but it is likely to be highly rewarding in terms of the advances it will provide us in both the short term and the long term. In the short term, we will acquire knowledge regarding the efficacy of the primary prevention intervention as well as potential new knowledge in terms of how to increase the preventative efficacy of similar interventions.

The knowledge we will acquire will directly benefit the community in several different ways. Treated participants will show a reduction in the incidence of anxiety disorders, a reduction in distress and impairment, a reduction in other AS-related pathologies including mood disorders and substance abuse, and reductions in non-psychiatric and psychiatric medical expenses as well as reductions in social and occupational disability.

We will also be left with a validated intervention program that can be made widely available. These research efforts will produce a brief, cost effective intervention program that can be delivered with minimal or even no therapist involvement. This computer-driven intervention can be readily disseminated to patients and clients under the care of the Ohio public mental health system. One method of dissemination would be to make this intervention program available to current patients and clients who might benefit from it (in terms of reduction of anxiety-related pathology and prevention of co-occurring anxiety pathology). Relatively minimal knowledge of the program and the availability of a computer for patient use are really the only elements necessary for establishing its use in a clinic.

However, an even more powerful use of this tool would be to allow access to the family members (e.g., children) of these clients. For example, a PC at the clinic could be made available to family members who have arrived with the client while they are waiting for the client to complete a scheduled visit. Another method of dissemination is to make this prevention program available to the school system. Ideally, we want to have a primary prevention program intervene prior to the development of mental illness. Delivery of this program in the school system seems to be an ideal method for reduction of risk in the general public. Our intention is to establish a web-based delivery system such that the intervention

program can be readily modified centrally and easily accessed by any interested party.

Our overarching goal is a substantial reduction in the incidence of psychopathology in the Columbus metropolitan region. This ambitious goal will require many years of work that integrates basic laboratory findings with treatment outcome data. There is also the necessity of establishing methods for the effective dissemination of this information to many sources throughout the area. We believe, however, that the goal is achievable and will lessen the burden of the public mental health system in the years that follow.

Finally, we realize that this study is preliminary. Our goal is to utilize this study to inform us regarding additional programmatic work in the area as well as to provide pilot data that will make us competitive for extramural funding of a much larger prevention trial.

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PARENT-CHILD DISCREPANCY: EXPLORING EXPLANATIONS

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Compared to adult assessment, youth assessment (both child and adolescent) poses unique challenges to clinicians. Paramount to these challenges is the task of obtaining complete and accurate information regarding the youth's current behavioral and emotional condition. Unlike adult assessment, in which clinicians can typically rely on patient self-report for diagnostic information (Stanger & Lewis, 1993), youth assessment requires more than primary self-report. In order for clinicians to obtain pertinent information from secondary sources, measures have been developed for youth assessment that include the reports of both the youth and a closely associated adult (Andrews, Garrison, Jackson, Addy, & McKeown, 1993). However, while these measures obtain reports from multiple sources and provide clinicians with a more complete picture of a youth's behavioral and emotional status, the accuracy and utility of such information is questionable because reports from the child and significant others often provide conflicting information (Achenbach, McConaughty, & Howell, 1987).

In order to understand this discrepancy a large amount of research has been conducted comparing youth self-reports and parental reports. This research has shown time and again that parents and youth do not provide corroborating information. In fact, while overall mean correlations between parent and child reports are statistically significant and average between .2 and .3 (Kolko & Kazdin, 1993), the correlations between parent and child reports are considerably lower than correlations found between other informants of child behavior. For example, reports of child behavior from mothers and fathers have been found to correlate between .72 and .82 (Seiffge-Krenke & Kollmar, 1998) while parental and teacher reports have been found to correlate as high as .77 and .96 (Jensen, Xenakis, Davis, & DeGroot, 1988). Clearly blatant differences exist between parent-child agreement rates and agreement rates for other informants of child behavior and emotional experience.

Discrepancy between parent and child reports of youth behavior can create problems for each of the three primary phases of treatment: appropriate service utilization, treatment planning/service delivery and treatment termination. Parental misjudgments regarding child behavior and emotional experience can lead to either over utilization of services or delays in service utilization depending on whether the parent over or under estimates the child's actual behavioral or emotional functioning. Additionally, because child reports are often perceived as inaccurate and are ignored when discrepant from parental reports (Loeber, Green, Lahey, & Stouthamer-Loeber, 1989), discrepancy between parent and youth reports has serious implications for treatment planning and actual service delivery. Finally, discrepant reports may result in inaccurate judgments of the child's progress in treatment and readiness for termination. Clearly, it is important to understand the nature of parent-child discrepancy on reports of child behavior and emotional experience in order to facilitate each of the stages of child treatment.

Traditionally, two approaches to understanding discrepancy between diagnostic information have been provided. First, researchers have evaluated the relationship between youth demographic factors (e.g., age, gender, and clinical status) and agreement between youth and parent reports of problem behavior and emotional experience (Hodges, Gordon, & Lennon, 1990; Kolko & Kazdin, 1993). Additionally, some researchers have examined other youth demographic factors, specifically those related to the behaviors measured such as diagnosis, severity of disorder, and disorder onset (Achenbach et al., 1987; Cantwell, Lewisohn, Rode, & Seeley, 1997; Stanger & Lewis, 1993).

The second traditional approach to understanding discrepancy has been to assess parental factors such as relation to the youth (e.g., biological parent, step parent, mother/father), parental education level, and parental pathology to understand their impact on discrepancy between youth self-report and parental report (Cantwell et al., 1997; Engel, Rodrique, & Geffken, 1994). These two bodies of research have contributed greatly to clinicians' ability to understand the impact that a variety of factors have on agreement between youth self-report and parental report.

However, while youth and parental demographic variables may provide some information regarding the nature and direction of discrepancy between child and parent reports, these variables do not provide a comprehensive understanding of the diverse factors, especially family factors, impacting discrepancy between youth self-report and parental report of youth problem behavior and emotional functioning.

In response to the paucity of research relating relationship factors to youth and parent discrepancy, recent research has begun to evaluate factors specific to family relationships for their impact on youth and parent agreement. The main focus of this new research has addressed the impact of the youth-parent relationship on discrepancy between youth self-report and parental report. This research has evaluated general familial factors such as family cohesion and adaptability, current family stress, family size, and family social economic status (Andrews et al., 1993; Kolko & Kazdin, 1993; Mokros, Poznanski, Grossman, & Freeman, 1987) as well as youth acceptance, parent-child interaction time, discipline practices and levels of parental monitoring (Beasely & Kearney, 1996; Kolko & Kazdin, 1993).

These three areas of study have resulted in several interesting findings. First, reports from children not receiving mental health services and their parents correlate higher than reports from children receiving mental health services and their parents (Butler, MacKay, & Dickens, 1995; Kolko & Kazdin, 1993). Second, while research has provided mixed results regarding the impact of child age on parent and child agreement, growing support is observed for increased agreement with age (Rey, Schrader, & Morris-Yates, 1992; Tarullo, Richardson, Radke-Yarrow, & Martinez, 1995). Third, no significant differences have been found between child agreement with mothers or fathers (Stanger & Lewis, 1993). Fourth, increased family cohesion may be associated with increased parent-child agreement (Kolko & Kazdin, 1993). While research in these three areas of focus in parent-child discrepancy is informative, several weaknesses are apparent in this body of research, potentially limiting the validity of findings.

The weaknesses of previous research can be classified into two areas: specific methodological shortcomings and general weaknesses of the current body of literature. For example, several methodological weaknesses are apparent in research regarding parent-child discrepancy. First, few studies use youth and parent measures with identical items. Second, those studies using identical measures do not use rigorously validated measures but generally create measures by merely picking and choosing items from existent measures. Third, in some cases, measures have been inappropriately used with children outside of the validated age ranges. Additionally, this body of research as a whole evidences two general weaknesses. First, research to date is observational rather than explanatory. In other words, previous research has endeavored to determine the existence of parent-child discrepancy rather than to test explanations for such discrepancy. Second, previous research has assessed parent-child discrepancy primarily through comparisons of parent-child correlations rather than comparisons of mean levels of symptom report.

Therefore, the goal of this research is twofold. First, this research makes methodological improvements to current practices of assessing youth-parent discrepancy by using identical measures for parents and children that have been psychometrically validated. Second, this study moves this body of

research forward by investigating two potential explanations for parent-child discrepancy: differences in parent/child definitions of normal and problem behavior and item variance between parent and child measures. Subsequently, two hypotheses were generated:

Hypothesis 1: Parent-child discrepancy is partially the result of item variance, as parent-child agreement obtained using measures with identical items will be greater than parent-child agreement obtained using dissimilar measures.

Hypothesis 2: Parent-child discrepancy on reports of child actual behavior is partially a result of general differences between parent and child perceptions of normal and problem behavior.

Subjects

Upon approval from the Ohio University's Internal Review Board, the author solicited participation from 122 youth (ages 12-18) and their parents. In order to address the impact of youth clinical status on the nature of youth-parent discrepancy, the author obtained both a clinical and a non-clinical sample. Forty-one youth were recruited from non-profit community mental health providers. The remaining 81 youth-parent dyads were recruited from local junior and senior high schools.

Instruments

A questionnaire was developed by the author to obtain demographic information in areas shown specifically to impact youth and parent agreement. The demographic questionnaire solicits information regarding rater age, gender, custodial status, race, and education level. Furthermore, the questionnaire asks for information regarding mental health services currently received, treatment length, and nature of treatment. Additionally, the questionnaire solicits information regarding the perceived closeness of the parent-child relationship. In this manner the author was able to match groups on key factors such as age and gender.

The Ohio Scales, an empirically validated set of measures designed to generate essential information for service providers regarding current youth behavioral and emotional deficits (Ogles, Lunnen, Gillespie, & Trout, 1996) were used in this research for four reasons. First, the Ohio Scales provide a brief, 20-item summary of youth problem behavior. This was important because youth and parents would be making multiple ratings as outlined in the "Procedures" sub-section of this chapter. Second, the Ohio Scales are easily divisible into external and internal symptom sub-scales. Third, the items are identical across measures of youth problem behavior and functioning completed by all raters. By using identical measures, the researcher will minimize error in discrepancy between youth and parent reports due to item variability across youth and parent measures. Fourth, the Ohio Scales have been shown to be an empirically sound measure of youth problem behavior (Ogles, Melendez, Davis, & Lunnen, 2000). Tests of the psychometric properties of the Ohio Scales with both clinical and non-clinical populations have shown good internal reliability (r = .97 and r = .95 for parents and children, respectively, in a community sample and r = .95 and r = .93 for parents and children, respectively, in a clinical sample; Ogles et al., 2000) as well as good test-retest reliability (r = .88 and r = .72 for parents and children, respectively, in a clinical sample; Ogles et al., 2000). Additionally, the Ohio Scales have been shown to correspond well with other established measures such as the CBCL and YSR (r = .89 and r = .82, respectively; Ogles et al., 2000).

Procedure

The goal of this research was to more fully investigate the discrepancy between youth and parent reports of child behavior. In order to obtain relevant information, parent-child pairs were recruited for participation from local schools or regional community mental health agencies. Parent-child dyads choosing to participate were asked to complete a demographic questionnaire soliciting information regarding variables previously demonstrated to be related to parent-child discrepancy on behavioral reports. Additionally, parents were asked to complete the problem severity sub-section of the Ohio Scales Short Form three times. First, parents and children rated the child's actual behavior. Second, parents and children rated their understanding of a "typical" child's behavior where the "typical" child was same age and gender as themselves or their child. Third, parents and children rated their understanding of a "problem" child's behavior where a "problem" child is a child the same age and gender as themselves or their child but who is experiencing behavioral and emotional difficulties. Statistical analyses of these actual, "typical" and problem behavior ratings were to answer the two research questions.

Results

While all participants rated the child's actual behavior first, *t*-tests were conducted comparing ratings between those who rated the "typical" child second and those who rated the "problem" child second to determine the existence of possible ordering effects. Parent ratings did not differ based on questionnaire order for ratings of "actual" (t (117) = 1.26, $p > .01$), "typical" (t (113) = -0.91, $p > .01$), or "problem" children (t (113) = 1.84, $p > .01$). Similarly, no significant differences in child ratings of "actual" (t (119) = 0.89, $p > .01$), "typical" (t (116) = 0.72, $p > .01$), or "problem" behavior (t (115) = -0.14, $p > .01$). A Bonferoni adjustment was made to adjust for the multiple t-tests performed. Therefore, an adjusted alpha of .008 was used in these analyses.

Correlational Analyses

In keeping with previous research regarding parent-child discrepancy, correlation coefficients were computed between parent and child reports of child behavior. Correlation coefficients were used to analyze potential sources of discrepancy between parent and child reports of child behavior in two primary ways. First, in order to test the impact of item similarity on parent-child agreement, the overall correlation coefficients obtained in this study were compared to those reported in previous research using measures that were conceptually similar but had differing items. Second, in following previous research, differences between the degree of correlation between parents and children due to demographic differences (e.g., child age, parent gender) were evaluated.

In order to determine the impact of item similarity on parent-child discrepancy, correlation coefficients were computed for the parent and child reports of the child's actual behavior. These coefficients were then compared to previously reported parent-child correlation coefficients for parent and child reports of child behavior.

This research found a significant correlation between parent and child reports of child actual behavior ($r = .55$, $p < .001$). In order to determine whether or not the obtained correlation coefficient differed statistically from those previously reported in the literature, the obtained correlation coefficient was compared to the average correlation between parent and child as Achenbach et al., 1987 computed using meta-analytic techniques ($r = .25$) using a Fisher's Z comparison. In the matched sample, the obtained correlation coefficients of this study were significantly greater than the average correlation coefficient previously reported ($z = 2.74$, $p < .05$). Therefore, it appears that item similarity indeed improves the degree to which parent and child reports of child behavior correlate.

Similar to previous research and in order to determine possible factors affecting parent and child agreement, correlation coefficients were computed for various subgroups of parent-child dyads based upon various demographic variables. The parent-child correlations for corresponding subgroups were then compared using Fisher's Z comparison to detect any significant differences in correlational agreement between these groups. Again, a Bonferoni adjustment was made so that $\alpha = .01$. Interestingly, for the entire sample, there was only one significant difference in correlation. This difference existed for the difference between the parent-child correlation of younger children ($r = .67$) and the parent-child correlation of older children ($r = .26$). Parent and child reports of actual behavior for younger children correlated better than did parent and child reports of actual behavior for older children ($z = 2.70$, $p < .01$). Thus it appears that the previously reported effects of parent and child demographic variables on parent-child discrepancy may be a minimized by the use of identical item measures.

Repeated Measures Analysis of Variance (RMANOVA)

In order to compare mean parent-child ratings, a 1 (clinical status) X 2 (rater, target) RMANOVA was computed. Rater was included as a within-subjects factor because of the yoked nature of the parents and children. Because child gender and age have been repeatedly associated with differences in parent-child agreement, a matched sample, comprised of clinical and non-clinical parent-child dyads matched on child gender and grade level, was generated by randomly matching parent-child dyads from the non-clinical sample to those parent-child dyads in the clinical sample. Samples were matched on grade level rather than age in order to maintain a maximum number of matched parent-child pairs. This sample was then used in the RMANOVA.

The interaction between clinical status and perspective was used to determine the validity of the measure in discriminating between service receiving and non-service receiving youth. A significant interaction effect was found for clinical status and perspective (F (2,67) = 8.348, p =.001). Post-tests using Tukey's HSD determined that the actual behavioral ratings for children in the community sample were indeed significantly lower than ratings for children in the service-receiving sample (Tukey's a = 9.03, $p < .05$). Thus, it appears that mean parent and child ratings on the Problem Severity sub-scale of the Ohio Scales were able to discriminate between those children receiving services and those children not receiving services.

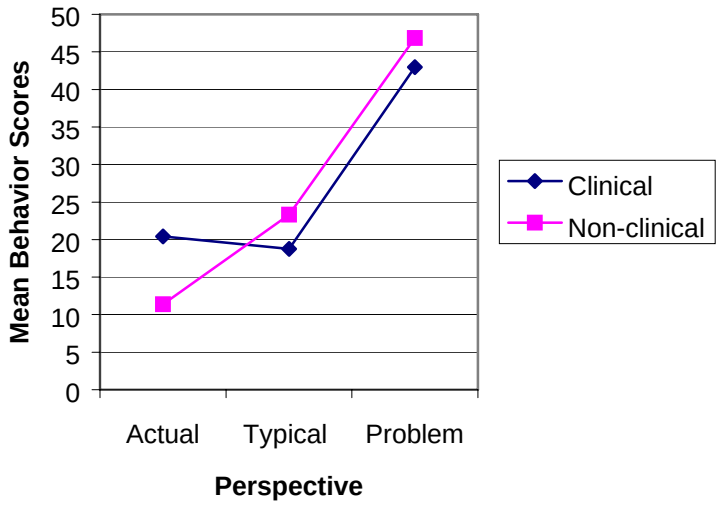
Additionally, the main effect for perspective was used in order to determine experimental validity or the degree to which participants were able to understand and comply with the directions to rate the child's "actual," "typical," and "problem" behaviors. A significant main effect was indeed found for perspective (F (1,68) = 60.45, $p < .001$). Thus, across perspective, differences did exist between ratings for each of the three levels of perspective ("actual", "typical", and "problem"). Further analysis indicated that parent and child ratings of "problem" behavior were significantly greater than their ratings for either "typical" or "actual" behavior (Tukey's a = -23.88, $p < .05$, Tukey's a = -29.01, $p < .05$, respectively).

Interestingly, while mean differences were apparent, no significant differences were detected between the average parent and child ratings of "typical" and "actual" behavior (Tukey's a = -6.02, $p >$ .05). However, differences between "typical" and "actual" parent child ratings may be masked as the perspective ratings are combined across clinical samples. Clinical status would be expected to mask differences between "actual" ratings and "typical" ratings as no systematic differences would be expected between the "actual" and "typical" ratings for each group. For example, it is anticipated that ratings of the child's "actual" behavior by parents and children in the community sample would be similar to the their ratings of the "typical" child. On the other hand, ratings of the child's "actual" behavior by parents and children in the service-receiving sample would exceed their ratings of "typical" child behavior. Such a situation would seem to invalidate experimental integrity, as no significant differences between the

ratings for "actual" and "typical" child behavior across clinical samples would be detected. However, in such a case, experimental integrity would be maintained as parents and children were able to comply with experimental expectations, as the lack of significant differences between "actual" and "typical" parent/child ratings reflect differences in clinical status. In other words, it appears that the participants both understood and adhered to the directions as intended.

In fact, as illustrated in Figure 1, a significant interaction was indeed found for clinical status and perspective (F (2,136) = 5.26, $p < .01$).

Figure 1. Mental Health Status X Perspective Interaction.



As anticipated, posttests revealed no significant differences between clinical groups for either the mean ratings of parent and child "typical" and "problem" behavior ratings (Tukey's a = 4.54, $p > .05$; Tukey's a = -3.87, $p > .05$). Furthermore, differences between "actual" and "typical" behavior ratings were found to vary as a result of clinical status. However, these differences were in the opposite direction than was expected as raters from the service receiving sample rated the child's "actual" behavior as similar to that of "typical" behavior (Tukey's a = 1.66, $p >.05$) while raters from the community sample rated the child's "actual" behavior as significantly better than that of "typical" behavior (Tukey's a = -11.91, $p < .05$). Thus it appears that experimental validity was upheld as the non-significant differences between "actual" and "typical" ratings appear to be a function of clinical status rather than experimental deviance.

Surprisingly, no main effect was found for rater (F (1,68) = 3.41, $p > .05$) nor did rater interact with either perspective (F (2,136) = 1.89, $p > .05$) or clinical status (F (1,68) = 0.45, $p > .05$). Furthermore, no significant three-way interaction between rater, perspective, and clinical status was found (F (2,136) = 0.27, $p > .05$). The lack of significance found for the factor rater at any level in the analysis indicates that on the average parents and children, across clinical groups, do not differ in their conceptualizations of "typical" and "problem" behavior. Moreover, parents and children at the group level do not differ significantly in their reports of the child's "actual" behavior.

Discussion

This is the first research to directly evaluate theoretical explanations for parent and child discrepancy on reports of child problem behavior and emotional experience. First, this research evaluated the impact of item similarity on parent-child discrepancy. The findings of this research clearly demonstrate that parent and child discrepancy is reduced when using identical item measures. Second, this research evaluated whether parent-child discrepancy could be accounted for by differences in parent and child perceptions of normal and problem behavior. Surprisingly, no differences were found between mean parent and child reports of "actual," "typical," and "problem" child behavior and emotional experience.

These findings suggest several implications for clinical practice. First, this research suggests that on the average, parents and children agree rather than disagree in their reports of child behavior. Therefore, discrepant parent and child reports of child problem behavior may indicate problematic family dynamics that should be addressed in treatment rather than simple differences between generational views of child behavior. However, it is important that such work be done discretely, as highlighting parent and child differences directly may feel coercive or threatening to either the parent or the child. In other words, in order to avoid alienating either the parent or the child when addressing parent-child discrepancy, the therapist must not come across as aligned with either the parent or the child. Second, the interesting finding that parents and children in the clinical sample see their child's behavior as representative of "typical" may account for low levels of parental and child involvement in the therapeutic process. Therefore, these findings suggest the potential importance of the therapist's assisting both the child and the parent to understand that the child's behavior is indeed representative of "problem" rather than "typical" behavior. Future research will therefore need to assess the impact that clarification of child behavior severity may have on parent or child motivation in therapy. Lastly, this research suggests when choosing measures or checklists as a gauge of child behavior, it is important for clinicians to pay close attention to key characteristics of these measures and checklists especially in reference to item similarity. And when choosing parent and child reports that present different forms of items, the clinician should recognize that some portion of any noted discrepancy may be due to differences in measures.

Additionally, these findings suggest several areas of future research. First, additional research is needed using empirically validated, identical item measures. This research should continue to assess the impact of parallel items on parent-child agreement as well as endeavor to confirm the finding of this research that reduction of item variance reduces parent-child discrepancy on reports of problem behavior. However, the primary goal of this research should be to corroborate that parents and children, on average, do not significantly differ on their views of child behavior.

Second, additional research is necessary to determine the impact of item variance on parent and child concordance regarding child diagnosis. This future research should directly compare the agreement rates of parents and children on child diagnosis using measures with similar and identical item measures. Such research would both confirm previous findings (Stanger & Lewis, 1994) and would further serve to demonstrate the potential impact of item variance on parent and child agreement.

Third, this research did not analyze the nature of parent and child discrepancy at the dyad level. The results of this research indicate that the elimination of item variance increased agreement between parents and children. However, it was also apparent that, while no overall mean differences between parents and children were detected, there is a great deal of discrepancy between parents and children at the dyad level. Therefore, future research should determine acceptable levels of parent and child discrepancy (possibly discrepancy exceeding the standard error of measurement for the scale) and determine individual and family characteristics that may be associated with more extreme individual differences between parent and child reports.

Finally, future research may investigate how parent and child discrepancy is related to treatment outcome. For example, future research should address the relationship between initial parent-child discrepancy with the child's response to treatment. Moreover, this research should attempt to determine the association between treatment progress and changes in parent and child discrepancy. The findings of this research could potentially provide clinicians with a valuable tool for assessing treatment outcome with children. Furthermore, such research would serve as a guide to the clinician as to how s/he should use or address parent-child discrepancies on reports of child problem behavior.

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THE OHIO SCALES YOUTH FORM: EXPANSION AND VALIDATION OF A SELF-REPORT OUTCOME MEASURE FOR YOUNG CHILDREN

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Competition for limited resources among publicly supported mental health agencies has created pressure to demonstrate the success of services offered. Consumers as well as third party payers are requesting verification of treatment effectiveness and cost efficiency as part of the demand for increased accountability among service providers. As a result, the assessment of treatment outcomes has become an increasingly common and important part of services conducted by publicly supported agencies. One of the many factors involved in outcome evaluation is choosing inexpensive, practical measures with demonstrated validity and reliability in order to accurately monitor change as a result of treatment (Ogles, Melendez, & Carlston, 2000).

The impact of the outcome assessment movement is varied, however, as the field of children's mental health has lagged behind that of adult mental health (Maruish, 1999; Pratt & Moreland, 1996). Not only have fewer outcome studies been conducted with children, but also fewer psychometrically sound outcome measures are available for use with children. Researchers (Hoagwood, Jensen, Petty, & Burns, 1996; Weisz & Weersing, 1999) attribute this lack of attention to children's outcome research to important developmental differences between adults and children that complicate the assessment of outcomes. For example, one such difference is the inclusion of multiple sources regarding the effects of services when assessing children's treatment outcomes, versus the self-referred independence of adult clients.

Another transition implemented as part of the adult outcome management and cost containment trend, incorporated to a lesser extent in children's mental health, is the increasing reliance on self-report measures (Beitchman, & Corradini, 1988; O'Keefe, Quittner, & Melamed, 1996). However, researchers now find that young children are in fact able to provide valuable clinical information (e.g., substance abuse or internal emotional states previously unknown to parents) despite the common practice of consulting parents as primary informants when the children are referred for mental health services (Kazdin & Heidish, 1984; Kenny & Faust, 1997; Weissman, Gammon, et al., 1987). Although large discrepancies often exist between the parent's report and the child's self-report, it seems premature to exclude young children as valuable informants as it is not possible to judge at this point whether the child or the parent is the more valid reporter. Current research has identified specific biases that may weaken the accuracy of parent and teacher reports (Beitchman & Corradini, 1988; Pratt & Moreland, 1996; Weisz & Weersing, 1999), supporting the call for continued research on children's value as sources of information regarding their mental health status.

The purpose of this study was to expand the utility of an existing self-report outcome measure available for youths ages 12-18 by examining the psychometric properties for children down to age eight. The Ohio Scales Short Form Problem Severity scale is a 20-item outcome measure including three parallel forms for the parent, agency worker, and child. The Problem Severity Scale of the Youth Form that was used in this study, assesses the presence or absence of clinical symptoms, including internalizing, externalizing, and conduct disturbance. Each rater ranks each item on a six-point scale, "0" representing "not at all" and "5" representing "all the time." Internal consistency and one-week test-retest reliabilities

were examined for the Ohio Scales. In addition, the validity of the Ohio Scales was determined by comparing the results of the Ohio Scales to the children's scores on the Behavioral Assessment Scale for Children (BASC), a multi-informant (including self-report) measure designed to aid in the clinical diagnosis of childhood disorders. Validity was also determined by comparing the Ohio Scales scores of a clinical sample of children to those of a non-clinical comparison sample.

Method

Subjects included 32 children between the ages of eight and 11 receiving outpatient mental health services from a non-profit agency in a mid-sized Ohio city. The comparison sample consisted of 97 children ages eight to 11, with no prior history of receiving mental health services, recruited from a local elementary school identified by the mental health agency administrators as a school from which they receive frequent referrals, in an attempt to obtain closely matched samples on such variables as socioeconomic status, race, and parent education. Approximately 37 percent of the packets sent out to the clinical sample were returned, compared to the greater than 50 percent response rate of the comparison sample.

Chi-square analysis of variance was conducted to examine possible group differences on demographic variables. The two samples were equivalent on child's age and gender. However, despite considerable efforts taken to ensure the selection of closely matched samples, including choosing the elementary school identified by the clinical sample's agency administrators as having provided frequent treatment referrals, the two groups differed significantly on several variables, including race, parent's education level, grade retainment, and whether the child receives a free school lunch, indicating lower economic status. Demographic information of the comparison and clinical populations was not available, so it is not possible to determine whether the samples are representative of the larger populations from which they were drawn.

Packets were sent home with all of the children including a brief cover letter describing the purpose and procedures of the study, an informed consent form, and a demographic questionnaire for the parents to complete. A reminder flyer was sent home one week later to encourage parents to complete the packet. Only those children who returned the consent form and the demographic questionnaire, both completed by the parent, and who gave their permission by signing an informed "assent" form were allowed to participate in the study. Participation for the children included completing the BASC and the Ohio Scales Youth Form Problem Severity Scale in class or after treatment sessions, for which they received one dollar as compensation. Following a one-week period, teachers randomly selected a subset of 32 children from the comparison sample to be readministered the Ohio Scales Youth Form Problem Severity Scale in order to evaluate test-retest reliability. The entire clinical sample also participated in the one-week retest of the Ohio Scales. These subjects received an additional dollar as compensation.

Teachers and counselors were instructed to provide only minimal assistance to the children such as reading unfamiliar words, but were instructed not to explain or interpret the items in any way. Children who did not understand the meaning of difficult items were told to skip the item. There were no skipped items on any of the Ohio Scales Problem Severity Scale for both the clinical and comparison samples. Reports by counselors and teachers suggest that in general, the 8 year-old children in both samples asked to have more words read to them, and in general, experienced more difficulty in completing the BASC than the older children.

Results

Reliability. Two types of reliability were examined within this analysis: internal consistency and test-retest reliability. Internal consistency, which assesses the correlation between each item of a scale with the overall test score, assuming that the overall score accurately measures a broader underlying construct, was calculated using Cronbach's alpha (Anastasi, 1988). Across all samples, internal consistency ratings are high ($N = 141$, $\alpha = .88$), indicating items of the Ohio Scales are part of the same underlying construct, namely problem severity. Because reliability is highly dependent upon within subject variability, internal consistency for the Ohio Scales was also examined separately within the comparison and clinical samples. Internal consistency ratings remained high, suggesting the items of the Ohio Scales remain part of the same construct whether measured within the comparison ($n = 87$, $\alpha = .84$) or clinical sample ($n = 54$, $\alpha = .89$). These results indicate that the items of the Ohio Scales consistently measure a common construct not only across both samples, but also within the comparison and clinical groups.

The second reliability analysis of the Ohio Scales, test-retest reliability, was conducted to examine the ability of children ages eight to 11 to rate their behavior and emotional states consistently over a brief period of time. A one-week interval was chosen as a sufficiently brief period so as to minimize the effects of ongoing treatment within the clinical sample. Test-retest correlations across the clinical and community samples indicate good reliability (see Table 1). Because there are significant differences between the two samples, reliability was also examined within each group separately. Strong test-retest correlations indicate a significant positive relationship both within the clinical sample as well as the comparison sample.

Table 1. Means and Standard Deviations for Ohio Scales, One-week Test-retest

	Ohio Scales Time 1			Ohio Scales Time 2			
	N	*M*	(*SD*)	*N*	*M*	(*SD*)	*r*
Comparison	87	16.99	(11.89)	32	12.31	(10.07)	.681**
Clinical	54	29.24	(20.05)	49	25.68	(21.21)	.675**
Combined	141	21.55	(16.48)	81	20.46	(18.82)	.719**

** $p < .001$

A paired samples *t*-test was also conducted to examine the difference in Ohio Scales scores from time 1 to time 2. Across both samples, the mean difference between scores for the Ohio Scales during the first and second administration is significantly different from zero, ($M = 3.37$, $SD = 14.04$) $t\ (81) = 2.17$, $p < .05$. When the two samples were examined separately, the mean difference between the first and second administration of the Ohio Scales were not significantly different from zero for either the comparison sample ($M = 2.77$, $SD = 8.14$), $t\ (30) = 1.90$, $p > .05$, or the clinical sample ($M = 3.73$, $SD = 16.72$), $t\ (50) = 1.59$, $p = >.05$. These findings indicate that the children's scores significantly decreased from time 1 to time 2. One possible explanation may be due to some form of practice effect, repeated exposure to the same instrument within a one-week interval. These results could also be the result of regression to the mean.

Validity. Two types of validity, concurrent and construct (Anastasi, 1988), were also examined as part of this analysis. Concurrent validity was demonstrated by the significant correlation between the children's scores on the Emotional Symptoms Index of the BASC and the total score on the Ohio Scales Problem Severity Scale across all groups, $r\ (117) = .617$, $p < .000$. Because the samples differed on

several demographic variables, concurrent validity was examined separately within the comparison and clinical samples. The BASC was significantly positively related to the Ohio Scales within the comparison sample, r (85) = .678, $p < .000$. However there was no relationship between the Ohio Scales and the BASC within the clinical sample, r (32) = .18, $p > .05$. This lack of findings is likely due to the small size of the clinical sample.

Construct validity was also examined by comparing the mean Ohio Scales scores of the clinical sample to those of the comparison sample. An independent samples t-test indicated that the mean clinical sample score on the Ohio Scales (M = 29.24, SD = 20.05) was significantly higher (i.e. more symptomatic) than the comparison sample (M = 16.99, SD = 11.89), t (75) = 4.09, $p < .000$. Further analysis determined that the mean scores of the clinical sample on the BASC (M = 49.48, SD = 8.17) did not significantly differ from the mean BASC scores of the comparison sample (M = 48.38, SD = 10.12), t (117) = -.518, $p > .05$.

Race Effects. Because the comparison and the clinical samples differed in their racial composition, ethnicity was examined by assessing the degree to which it contributed to group differences between these two samples on the Ohio Scales Problem Severity Scale. Mean scores on the Ohio Scales for Caucasian subjects were compared to those of all other minority groups (combined) within the clinical sample. (There were too few minority subjects within the comparison sample to include them in this analysis.) There were no differences between the Caucasian subjects (M = 27.22, SD = 19.47) and all other minority subjects (M = 33.28, SD = 21.12) on the Ohio Scales, t (25) = -1.05, $p > .05$. This suggests the differences between the comparison and clinical samples on the Ohio Scales are not likely due to ethnicity, but rather to the child's clinical status.

In order to minimize the effect of the significant demographic differences between the comparison and clinical samples, subjects were matched on age, gender and level of parent education (indicating socio-economic status). Race was not included as a matching variable because, as shown previously within the clinical sample, there was no difference between the mean scores on the Ohio Scales between Caucasian subjects and all other minority groups combined. Therefore, subjects of different ethnic groups could be matched indiscriminately. A matched subsample of 21 subjects was included in an independent samples t-test between the comparison and clinical samples on the BASC and the Ohio Scales. Similar to the unmatched samples, the mean Ohio Scales score of the clinical sample (M = 29.57, SD = 17.26) was significantly higher than the comparison sample (M = 13.76, SD = 8.11), t (40) = -3.80, $p < .000$. However, despite the matched sample, there remained no difference between the clinical (M = 47.55, SD = 7.97) and the comparison (M = 48.20, SD = 9.44) samples on the BASC, t (40) = .234, $p > .05$. It appears that when parent education was controlled for, the BASC was still unable to distinguish the comparison sample with the clinical sample, while the Ohio Scales demonstrated significant differences. This suggests that differences in mean Ohio Scales scores were not a function of sample differences.

Age Effects. A separate analysis was conducted to examine the reliability and validity within varying age groups. The entire sample (clinical and comparison groups combined) was divided into four age groups (i.e., 8, 9, 10, 11 years of age). A chi-square analysis demonstrated these groups were equivalent in gender, race, parent's education, whether the child had been held back a grade, and whether the child received a free school lunch. The subgroups were compared on tests of reliability and validity (see Table 2). Internal consistency remains acceptable across all age groups. Test-retest reliability estimates are all significant, with the correlation coefficient increasing fairly consistently from younger to older children. Concurrent validity was demonstrated for all age groups by the correlation between the BASC and the Ohio Scales Problem Severity Scale, although there does not appear to be any pattern related to increasing age as was found with reliability.

Table 2. Reliability and Validity Data Per Age Group

	Internal Consistency		Test-Retest		BASC vs. Ohio Scales	
	N	α	*N*	*r*	*N*	*r*
8 year olds						
Comparison	19	.85	8	.212	18	.816**
Clinical	14	.91	12	.596*	7	.078
Combined	3	.89	20	.591**	25	.601**
9 year olds						
Comparison	24	.80	9	.883**	24	.787**
Clinical	15	.81	13	.435	8	-.022
Combined	39	.82	22	.581**	32	.442
10 year olds						
Comparison	28	.88	8	.889**	28	.646**
Clinical	9	.91	9	.802**	3	-.859
Combined	37	.90	17	.786**	31	.555**
11 year olds						
Comparison	17	.82	6	.884**	16	.679**
Clinical	18	.93	16	.845**	7	.888**
Combined	35	.93	22	.867**	23	.516*

* $p < .05$, ** $p < .01$

Table 3. *T*-tests Within Age Groups

	Comparison			Clinical			
	N	*M*	*SD*	*N*	*M*	*SD*	*t*
8 year olds	19	20.89	(14.55)	14	26.93	(21.37)	-.966
9 year olds	24	17.42	(11.71)	15	27.47	(16.19)	-2.25*
10 year olds	28	15.25	(11.96)	9	28.22	(21.30)	-2.31*
11 year olds	17	15.29	(8.82)	18	31.06	(22.55)	-2.69*

* $p < .05$

In order to examine the construct validity within each age group, clinical and comparison samples were separated. An independent sample *t*-test compared the mean Ohio Scales score of the clinical sample to that of the comparison sample for eight, nine, 10, and 11 year old children (see Table 3). It appears that the Ohio Scales is significantly better at discriminating between those children of the clinical sample from those of the comparison sample when the rater is older than eight years of age.

A 4 x 2 x 2 repeated-measures MANOVA was conducted to examine age and status effects on the test-retest reliability of the Ohio Scales. There was a main effect for time F (73) = 5.27, $p < .05$, where scores decreased significantly from time 1 to time 2. This effect was also found by the paired-samples t-test conducted above. There was an unexpected significant three-way interaction between time x status x age F (3) = 2.95, $p < .05$ (see figures 1 & 2). Within the comparison sample, children ages eight and 11 scored significantly lower on the Ohio Scales at time 2 than time 1, whereas children ages nine and 10 rated themselves fairly consistently from time 1 to time 2. However, within the clinical sample, the opposite effect was found. Children ages eight and 11 rated themselves consistently from time 1 to time 2 using the Ohio Scales, whereas children ages nine and 10 scored significantly lower on time 2 than time 1 on the Ohio Scales.

Figure 1. Mean Ohio Scales scores for the comparison sample.

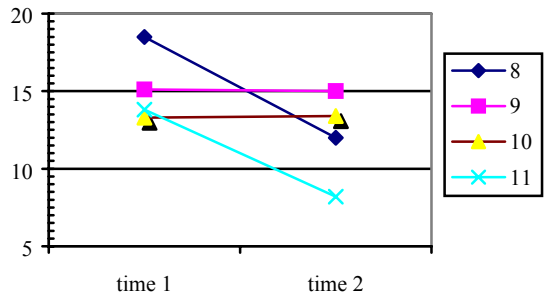
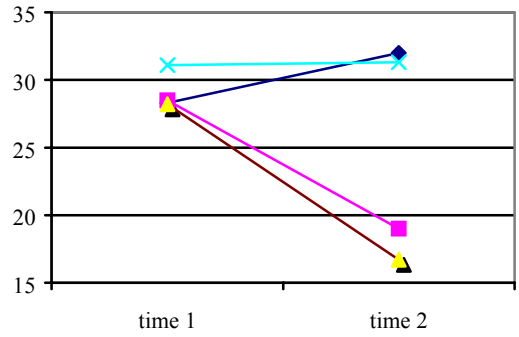


Figure 2. Mean Ohio Scales scores for the clinical sample.



Discussion

The area of outcomes assessment has received growing attention among mental health service providers, particularly in light of the increasing competition for limited resources. Public mental health agencies have increasingly turned to service evaluation in order to demonstrate quality improvement, accountability, and cost efficiency (Eisen, Leff, & Schaefer, 1999). Despite this emphasis on effectiveness research, young children referred for mental health services currently have limited standardized measures available to report information regarding their behavior and emotional states (Maruish, 1999; Pratt & Moreland, 1996). By incorporating children's self-report information with the information gathered from parents and teachers, clinicians will be better informed when making diagnostic and treatment decisions. The purpose of this study was to examine the psychometric properties of the Ohio Scales Youth Form Problem Severity Scale, an outcomes assessment measure currently available for adolescents, for children between the ages of eight to 11.

Internal consistency analysis indicates that the items of the Ohio Scales Problem Severity Scale all function as part of the same construct, namely problem severity. These alpha values are also consistent with those found within the adolescent sample used to norm the Ohio Scales Youth form for 12-18 year olds, which range from .90 to .95 (Ogles, Melendez, Davis, & Lunnen, 2000). The test-retest reliability coefficients of the eight to 11 year olds, although slightly lower than the adolescent norming samples (r = .88 and .72) (Ogles et al., 2000), are good, demonstrating that the Ohio Scales reliably measures the same construct when administered on two separate occasions within a one-week interval.

Construct validity was demonstrated by the significant correlation between the BASC and the Ohio Scales Problem Severity Scale across both samples. Although the BASC was not correlated with the Ohio Scales within the clinical sample, this is most likely due to the small sample size. Evidence supporting the validity of the Ohio Scales within a heterogeneous group (i.e., comparison and clinical samples combined) holds more external validity insofar as children who are referred for mental health services include those that are clinically impaired as well as children exhibiting sub-clinical impairment. In addition, there were no differences between the mean Ohio Scales scores of the minority and Caucasian groups within the clinical sample. This matches the earlier findings regarding the Ohio Scales with adolescent samples (Ogles et al., 2000).

The Ohio Scales Problem Severity Scale also demonstrated adequate construct validity by distinguishing children currently receiving mental health services from children who reported no prior mental health referrals. In this study, the BASC was unable to differentiate clinical from comparison children. One possible explanation for this unexpected finding may be found within the chi-square analysis, which indicated that children of the clinical sample were significantly more likely to have been retained in school than children from the comparison sample. Those children may have had particular difficulty with reading and understanding the items of the BASC. When the 16 children who had been retained a grade were removed from the clinical sample (reducing the clinical sample by 50%), the correlation between the BASC and the Ohio Scales increased from r = .18 to r = .53. Although this correlation did not reach significance, most likely due to the drastically reduced sample size, such a dramatic improvement in the correlation indicates that school difficulties may be a significant contributing factor to the lack of relationship between the BASC and the Ohio Scales. It is also important to note that the BASC consists of 152 items. One would expect that disruptive behavioral and attentional problems, prevalent within the clinical sample, would create more difficulty for the child of the clinical sample to complete the BASC with careful attention and accuracy.

Perhaps the most parsimonious explanation for the lack of correlation between the BASC and the Ohio Scales Problem Severity Scale within the clinical sample is that they are measuring different constructs. Although the Emotional Symptoms Index of the BASC is considered the scale's overall indicator of psychological disturbance, it favors internalizing symptomatology over externalizing behavioral disturbance. Also the BASC is measuring more stable personality and self-perception characteristics and is not designed to be sensitive to change, evident by the seven month test-retest correlation of r = .51 for a clinical sample of children. Conversely, the Ohio Scales focuses more on specific behaviors and emotions, and is more equally balanced than the BASC in measuring both internalizing and externalizing symptoms. In addition, the items of the BASC are rated either true or false, a more appropriate rating system for stable personality characteristics. Items of the Ohio Scales include specific behaviors that are likely to change as a result of treatment, and are rated on a scale from 0-5, which more accurately measures behavior severity and change over time.

The age effects analysis supports the use of the Ohio Scales Problem Severity Scale for children nine years of age and older. Reliability estimates increased gradually from younger to older children. Because validity depends upon the scale's consistency to accurately measure a stable construct, it follows

that construct validity is also strongest for children ages nine and up. The significant three-way interaction, time x status x age, was truly unexpected. Within the clinical sample nine and 10 year-old children rated themselves similarly from time 1 to time 2 whereas the eight and 11 year-old children's scores decreased over time. Within the comparison sample the findings are completely opposite: the eight and 11 year-old children rated themselves consistently from time 1 to time 2, and the nine and 10 year-old children's scores decreased over time. Of particular interest is the reversal between the comparison and the clinical samples, as well as the manner in which the age groups clustered (youngest and oldest compared to the two middle ages). Possible explanations for this phenomenon, other than variance attributable to the small sample size, are beyond the scope of this project. Future research focusing on young children's self-report using outcome measures that are sensitive to change may help clarify possible explanations for these findings.

The findings of this study lend support to previous studies which have emphasized the unique information provided by young children and recommended the inclusion of children's self-report data in addition to parent and teacher reports (Kazdin & Heidish, 1984; Kenny & Faust, 1997; Weissman, Gammon et al., 1987). Based on these results, the Ohio Scales Youth Form Problem Severity Scale may be considered a reliable and valid outcomes measure for children ages nine to 11. Based on the results of the age-group analysis, caution should be used when interpreting outcome data gathered from children under the age of nine, as the validity of their self-report has not been determined by this study. Conclusions drawn from the findings of the eight year-old sample are limited by the small sample size.

There are several limitations to this study. First, and perhaps most limiting, is the small size of the clinical sample. The low participation rate is most likely due to the frequency of treatment sessions, which were held weekly for the clinical sample. Children were given packets for their parents to complete in order to participate in the study. However, it became difficult for the children to remember to return their packets the following week, despite the use of a reminder flyer. The small participation rate may indicate that the children and parents who chose to participate are not representative of all children receiving mental health services within the agency. A larger clinical sample would have most likely minimized the differences between the two samples on such variables as race, parent education, grade retainment, and whether the child received a free school lunch.

This study has provided further evidence to support the collection of self-report information from young children for the purposes of outcomes assessment. However, this area requires even further expansion and future research in order to achieve the certainty already accomplished by the field of adult outcomes assessment (Maruish, 1999; Pratt & Moreland, 1996). Although this study demonstrated the validity and reliability of the Ohio Scales Youth Form Problem Severity Scale for children ages nine to 11, sensitivity to change has not yet been examined. Research demonstrating the Ohio Scales' Problem Severity Scale sensitivity to change, particularly within this younger population, would provide important information on young children's ability to recognize behavior and emotional changes, using their previous ratings as a standard for comparison, as a result of receiving mental health services.

Another possible suggestion for future research is to examine the collaboration between self and peer reports among young children. This would offer insight into how children might use their perception of others' behaviors to judge their own behavioral and emotional states. Also, the relationship between children's self-report ratings on behavioral scales and an independent observer's rating of the child's behavior may provide important information regarding the validity of children's self-report, as well as clarify potential sources of variability between information provided by parent, teacher and children's reports.

The findings of this study support the use of the Ohio Scales Youth Form Problem Severity Scale, a brief, practical, psychometrically sound, self-report outcomes measure, for children between the ages of nine to 11. The parallel format of the Ohio Scales forms allows mental health agencies to consider information provided by the children, and to compare these to the information provided by their parents as well as their therapist. The ultimate goal of this and other related research is to improve the quality of mental health services available for young children by encouraging the regular assessment of treatment outcomes, as is currently available for adults. More tentative conclusions may be drawn for the appropriateness of the measure for eight-year-old children, for which more data are needed to illuminate particular age-specific effects.

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RESTRICTIVENESS OF CARE AND YOUTH FUNCTIONING: EVALUATING A CONTINUUM OF CARE WITH THE OHIO SCALES

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The past two decades have been marked by sweeping changes in the treatment of youth with severe emotional disturbances (SED). The system of care philosophy, as espoused by Stroul and Friedman (1986), has been the driving force behind these changes. The core concept of the system of care approach is that the needs of youth with SED are best served when agencies collaborate and coordinate the care they provide, with a focus on family-sensitive, child-centered interventions. These interventions are typically offered along a continuum of care so that services can be individualized for a specific youth. The continuum of care ranges in terms of restrictiveness from programs that allow a child to remain in her own home environment and attend periodic outpatient sessions to programs where a child is removed from the home for an extended period of time for treatment. Restrictiveness of care is one of the core components of the system of care philosophy. The framing values for building a system of care include the following principle: "Children with emotional disturbances should receive services within the least restrictive, most normative environment that is clinically appropriate" (Stroul & Friedman, 1986, p. 20). Thus, it behooves researchers to investigate program restrictiveness as it relates to outcomes for youth receiving mental health treatment.

As treatment options in the system of care for children and adolescents have increased, research has slowly begun to emerge on the effectiveness of various continua of care. Currently, a paucity of research exists on the relationship between program restrictiveness and youth functioning. Table 1 provides a summary of all nine empirical studies that have been done to date on this topic. As can be seen in Table 1, early studies on this topic involved school-based programs and are not entirely applicable to the current system of care. It is also worthy to note that the results from the other treatment-based studies have been equivocal in all but the most recent research.

The most comprehensive investigation of program restrictiveness and youth functioning was done by Handwerck, Friman, Mott, and Stairs (1998). The authors utilized the Child Behavior Checklist (CBCL; Achenbach, 1991) and its subscales as outcome measures in this study to determine the functioning of children and adolescents. Unlike the seven prior studies that focused on a smaller slice of the available services for youth, Handwerck et al. (1998) assessed seven levels on the continuum of care: parent training, outpatient treatment, family preservation program, therapeutic foster care, acute-care shelter, residential group home, and inpatient hospitalization. When CBCL scores were compared among groups receiving different types of treatment, a linear relationship between program restrictiveness and youth functioning was found. Youth who were involved in more restrictive programs had more behavioral and emotional problems as indicated by CBCL scores, and this difference was more dramatic when children at opposite ends of the continuum of care were compared.

Purpose of the Study

The purpose of the present study is to further investigate the relationship between youth functioning and restrictiveness of treatment programs. However, this investigation will go a step further than the Handwerck et al. (1998) study by including a repeated measure component after six to eight

weeks of treatment. The link between youth functioning and problem severity, as measured by the Ohio Scales (Ogles, Melendez, Davis, & Lunnen, 1998), will be investigated as it relates to the services provided in the following five treatment programs: outpatient, day treatment, intensive outpatient, therapeutic foster care, and residential treatment. It is hypothesized that the following will be found in this study:

Hypothesis 1: Adolescents who have lived in more restrictive environments for the three months prior to treatment will have more mental health problems and poorer functioning.

Hypothesis 2: Adolescents referred to more restrictive treatment programs (e.g., inpatient care, day treatment) at the time of intake will have poorer functioning and greater problem severity.

Hypothesis 3: Changes in the treatment program for adolescents after six to eight weeks, as a whole, will correspond with changes in problem severity and youth functioning.

Hypothesis 4: At both intake and at the six to eight week interval, primary caregivers will rate the adolescents less favorably (lower functioning, greater problem severity) than both agency workers and adolescents.

Methodology

In this study, the initial differences in functioning and problem severity are compared among youth in five different treatment programs. Furthermore, outcomes of clients assigned to the various programs are compared after six to eight weeks of treatment. Presently, data collection is in the initial stages and only a handful of participants have completed the study. Thus, no analysis of the data has been performed at this time.

The parents of all adolescents aged 12 to 17 referred for mental health services in up to five programs of varying restrictiveness are approached regarding voluntary participation in the study. The five program types, in ascending order of restrictiveness, include: 1) outpatient treatment, 2) day treatment, 3) intensive outpatient treatment, 4) therapeutic foster care, and, 5) residential treatment. Data collection will continue until 30 participants are obtained in each treatment program, with a grand total of at least 150 participants. Adolescents and families participating are paid in cash for their time completing the assessment procedure, and incentives are given to agency workers who assist in rating the children and collecting the data.

Instruments

Ohio Scales. The Ohio Scales (Ogles et al., 1998) are a practical, brief, easy to administer, psychometrically sound outcome instrument that can be given at regular intervals throughout the treatment of children and adolescents. The typical time interval between Ohio Scales administrations is around 90 days, but it can be administered more frequently.

Restrictiveness of Living Environments Scale (ROLES). The ROLES (Hawkins, Almeida, Fabry, & Reitz, 1992) is a clinical measure of the restrictiveness of residential settings for adolescents and children where higher scores represent more restrictive settings. The scale ranges from zero (independent living by self) to ten (jail), with each increasing score of .5 representing one step toward greater restrictiveness of living environments.

Table 1. Relationships Found in Restrictiveness of Program and Youth Functioning Studies

Author, Year	Functioning Measures	Setting	Strength of Relationship
1. Peterson, Zabel, Smith, & White, 1983	Categorical Measure: Type I or Type II Student	Educational	Weak
2. Bullock, Zagar, Donahue, & Pelton, 1985	Behavioral Dimensions Rating Scale (BDRS)	Educational	Weak
3. Hundert, Cassie, & Johnson, 1988	Child and Adolescent Adjustment Profile (CAAP); Bristol Social and Treatment Adjustment Guide (BSAG); The Family Assessment Measure (FAM); Piers-Harris Self-Concept Scale	Mixed: Educational	Weak
4. Dore, Wilkinson, & Sonis, 1992	Children's Global Assessment Scale (CGAS)	Treatment	Moderate
5. Friman, Evans, Lazelere, Williams, & Daly, 1993a	Eyberg Child Behavior Inventory Child Behavior Checklist (CBCL) and Non-Clinic	Mixed: Treatment	Weak
6. Friman, Soper, Thompson, & Daly, 1993b	Child Behavior Checklist (CBCL)	Treatment	Strong
7. Zimet, Farley, & Zimet, 1994	Louisville Behavior Checklist	Treatment	Moderate
8. Bickman, Summerfelt, & Noser, 1996	Child Assessment Schedule (CAS) Burden of Care Questionnaire	Treatment	Strong
9. Handwerck, Friman, Mott, & Stairs, 1998	Child Behavior Checklist (CBCL)	Treatment	Strong

Procedure

Youth referred to treatment are determined by mental health personnel to be eligible for the study based on the type of program to which that adolescent was referred, and their age. It is then mandatory that a parent or legal guardian sign a voluntary consent form if the adolescent is to participate in the study. The purpose of the study, procedure, relevant risks, and benefits are all outlined on the informed consent form, and are explained to primary caregivers and youth. Those parents or guardians who agree to have their youth included in the proposed study then participate in a brief assessment at the time of the initial meeting. The assessment consists of administration of The Ohio Scales (Ogles et al., 1998), which is filled out by the child, clinician, and parent at the time of intake. In addition, The Restrictiveness of Living Environments Scale (Hawkins et al., 1992) is completed as part of the background information

attached to the Ohio Scales so that a measure of the youth's living environment for the past 90 days can be obtained. The treatment program that the participant is referred to at that time is also documented.

One final gathering of data occurs after approximately six to eight weeks of treatment following the initial assessment. The Ohio Scales are again filled out by the child, clinician, and parent, and the treatment program that they are involved in at that time is documented. For example, if a participant is released from therapeutic foster care and referred to outpatient care before the second assessment, the youth, clinician, and parent will again complete the Ohio Scales, and the new treatment environment is documented. The purpose for the second assessment with the Ohio Scales is to determine if changes in the treatment environment are indeed related to changes in functioning, and if so, from whose perspective. If an adolescent's treatment program does not change after the six to eight weeks of treatment, he or she will still be assessed with the Ohio Scales again for the same purpose--to determine if no change in the treatment program is matched by little or no change in functioning from youth, clinician, and parent report measures.

Statistical analyses will be performed on data derived from the proposed method. The sample will be analyzed based on ROLES scores for the time prior to the assessment and program type during both assessment periods, and the Ohio Scales Functioning and Problem Severity scores will serve as the outcome measures. Finally, difference scores for those adolescents whose functioning improved, stayed the same, or got worse, will be compared based on their assignment to one of the five treatment programs.

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EFFECTS OF FEEDBACK TO THE THERAPIST ON CHILD CLINICAL OUTCOMES: A PATIENT-ORIENTED APPROACH TO DEMONSTRATING EFFECTIVE PRACTICE

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Providing objective and specific feedback has long been known as an effective way to improve performance in a variety of areas, including manufacturing (Frost, Hopkins, & Conrad, 1981), math (Shaw, Locke, Bobko, & Beitzell, 1981), office work (Kopelman, 1979), classroom behaviors (Martens, Hiralall, & Bradley, 1997), and in the treatment of specific problems related to mental disorders (Brewer, Smith, & Kennedy, 1996; Falk, Dunlap, & Kern, 1996). Is it not, then, reasonable to suggest that feedback might improve the performance of therapists, i.e., client outcomes, as well? This is the underlying question that is explored in the following study.

The motivation behind asking such a question evolves from two competing realities facing the delivery of mental health services to youth: 1) calls for accountability--the increased demands among payers for agencies to demonstrate effective service (Fabry, Hawkins, & Luster, 1994) and 2) the decrease in available resources (SAMHSA, 1998; Ebben, Bliss, & Perlman, 1991). Therefore, any method that may demonstrate effectiveness and improve outcomes within limitations imposed by existing resources would be a worthy method indeed. In this study, a simple feedback protocol is investigated as one such possible method.

In addition to the hypothesized effect that feedback may have on a therapist's performance, working alliance was hypothesized as the likely mechanism of change. Rather than attempt to directly measure any number of possible behavioral changes in the therapist, which would have been too unwieldy, a decision was made to assess any changes in the working relationship. Thus, a therapist actively attempting to make positive changes in therapy, as a consequence of negative, or little positive, feedback would most likely be reflected in the reported alliance.

Methodology

The current sample consists of thirty-four students, seven therapists, and eleven teachers from two separate urban-based day-school sites that serve children with the Severely Emotionally/Behaviorally Disturbed classification.

The student sample comprises ages ranging from 12 to 19 and is mostly male. All therapists are master's level, licensed mental health practitioners in the state of Ohio. All teachers have at least a master's degree and all are certified by the state of Ohio to work with special education populations.

Students were randomly assigned to one of two experimental conditions. The high feedback group consisted of students whose therapist received weekly results from the Ohio Scales Problem Severity scale (Ogles, Melendez, Lunnen, & Davis, 2001) using the self-report, the teacher report, and the therapist report. The low feedback group consisted of students whose therapist received weekly results from the therapist report only. The feedback consisted of a one-page graph that indicated the most recent score(s), as well as any previous scores. The graph also indicated whether the change in scores was statistically significant or clinically meaningful. The duration of the study was for twelve sessions, which

were never less than one week apart. Thus, while the therapists necessarily knew which students were in the experimental group, the students themselves, and the teachers were kept unaware.

Students and therapists also completed the Therapeutic Alliance Scale for Children (Shirk & Saiz, 1992) every third session to test the hypothesis that any between group effect would be associated with a difference in alliance favoring the high feedback group.

Preliminary Results

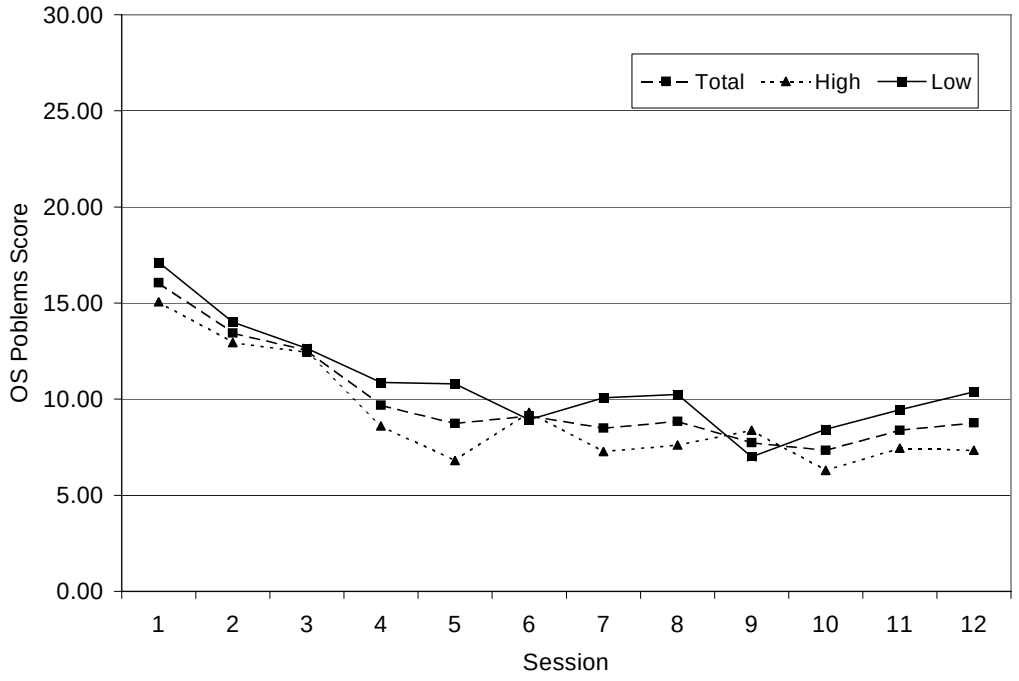
Note that since data exist from only thirty-four of the sixty subjects required for adequate power, statistical analyses will not be reported at this time. An additional thirty subjects are currently providing data at a third urban-based day-school site. Data collection and statistical analyses are expected to be complete by mid-January 2002. Therefore, this report will only summarize the results from the thirty-four subjects already available.

Changes in Problem Severity

Of primary interest was whether those students whose therapist received ongoing feedback from all three reporting sources showed improvements in their behaviors compared to students whose therapist did not receive this feedback.

Figures 1 through 3 illustrate the changes reported by each of the sources. Figure 4 compares the reporting sources to one another for all students.

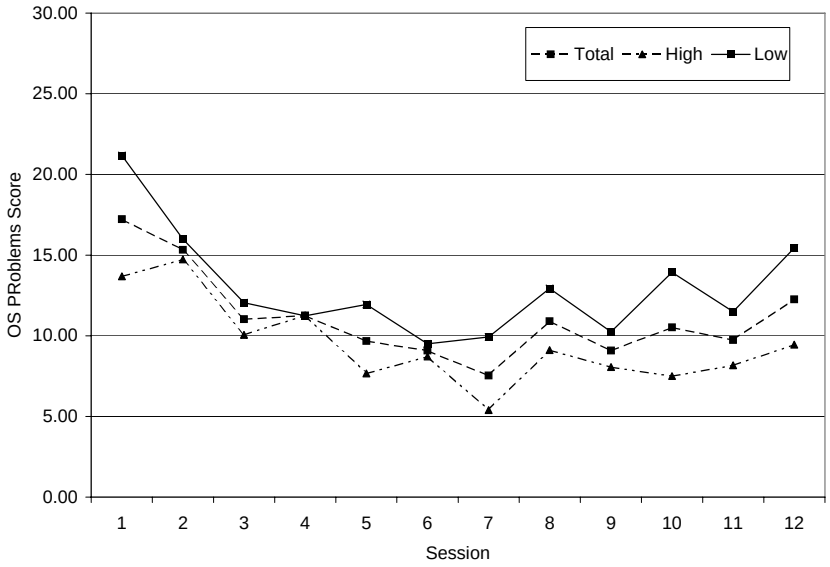
Figure 1. Comparison of Problem Severity scores by condition using the student report.



As is apparent in the first three graphs, all sources report a general decline in problem behaviors over time and the high feedback group appears to have a slight advantage over the low feedback group among all sources, as well.

For the student and therapist report, however, the relatively low scores reported at session one, mean = 16.06 and mean = 17.22, respectively, out of a possible 80, severely limits the range of possible improvement over time. In any case, some interesting patterns result. First, most of the improvement appears to occur during the first six sessions of treatment for each of these sources. The fourth graph shows a much more dramatic illustration of this pattern. Second, therapists tend to report rather dramatic week to week changes in their client's problem behaviors; the low feedback group, in fact, appears to have lost some of their earlier gains by the twelfth session. The latter finding would be consistent with one of the concerns regarding tracking clinical change in children compared to adults--that the behavior of children is simply less stable (e.g., Kazdin, 1998).

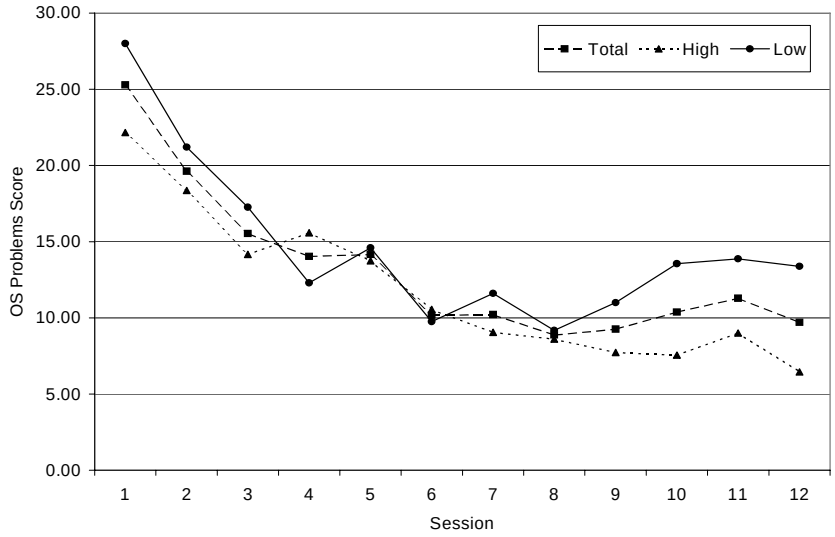
Figure 2. Comparison of Problem Severity scores by condition using the therapist report.



The third graph is perhaps of most interest. Unlike the student and therapist reports, teachers reported a much greater severity of problem behaviors at session one (mean = 25.29), a more dramatic decrease over time, and a more apparent difference between the two experimental groups by session twelve ($mean_{high}$ = 6.44 and $mean_{low}$ = 13.38).

Interestingly, teachers also reported an apparent increase in problem severity after the sixth session for the students in the low feedback group. In fact, it appears that this "change for the worse" among students in the low feedback group accounted for any actual difference between the two groups. That is, up to that point prior to the low feedback student's rise in problem behaviors, the two groups were fairly similar. This suggests a possible *protective* function that is being served by providing therapists with feedback rather than an actual acceleration in improvement.

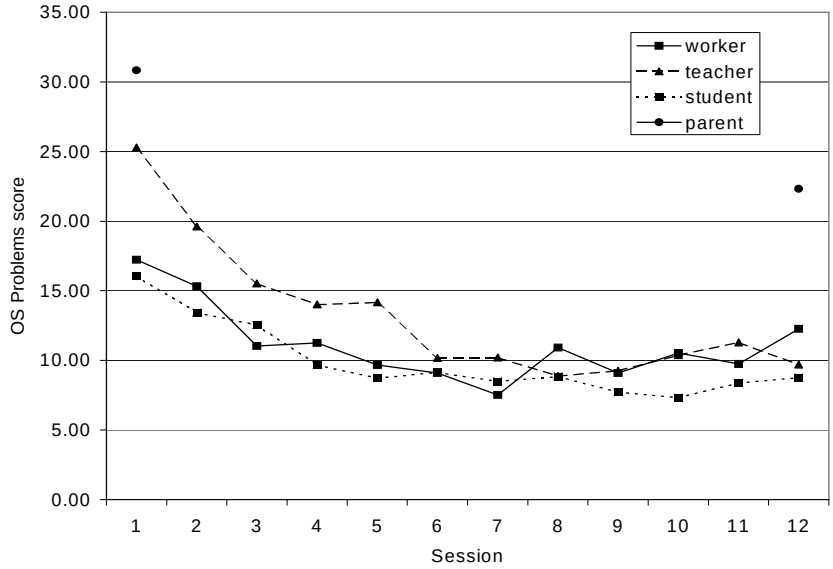
Figure 3. Comparison of Problem Severity scores by condition using the teacher reports.



The final point of interest in the third graph is the fact that teachers were the least likely source to be affected by a response bias. Unlike therapists, teachers were completely blind as to which student was in the high feedback group, and unlike students or parents, teachers had no personal stake in presenting a more positive outlook. This point of view, however, has enjoyed little investigation in the child clinical literature. Hopefully, data analysis with the complete data set will elucidate the advantages of perhaps using teachers as a more objective reporting source in future studies or evaluations.

The final graph simply compares the reporting sources.

Figure 4. Comparison of Problem Severity scores by reporting source for all students.

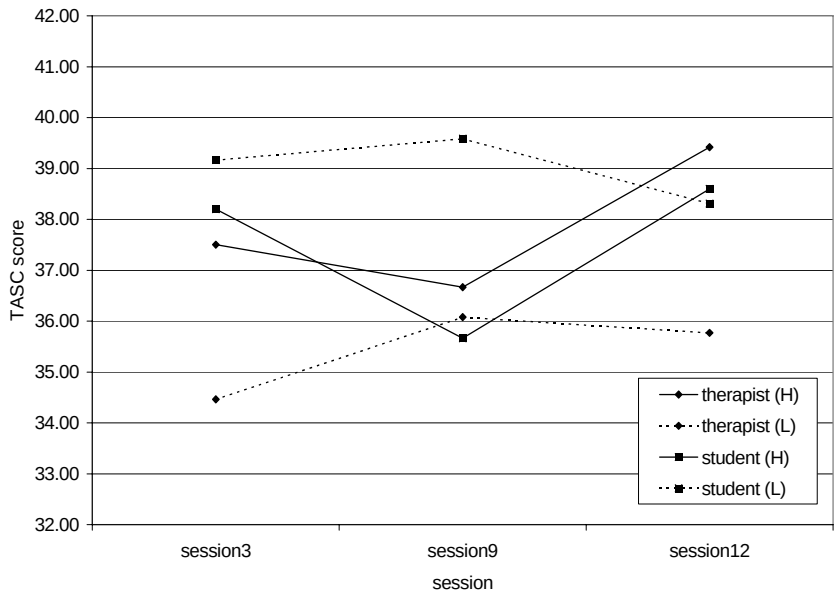


Relationship between Problem Severity and Therapeutic Alliance

Again, this report will avoid the use of statistical analysis until more data are available, thus correlations among alliance scores and changes in problem severity will not be reported. Some impressions may be formed, however, with the current data. A self-report measure of therapeutic alliance was given to therapists and students after the third, sixth, ninth, and twelfth sessions. Unfortunately, data from the sixth session are available for only a fraction of the participants, because of a scheduling problem; therefore only sessions three, nine, and twelve are reported here.

The following graph illustrates changes in TASC scores for each source and each group.

Figure 5. Comparison of alliance scores by reporting source and condition.



Between the two groups, we see widely different patterns depending on the reporting source. Students reported similar alliance scores at session 3. By session 9, the two groups diverge, favoring those in the low feedback condition. Between sessions 9 and 12, however, the two groups converge to levels similar to that found at session 3. Therapists showed the exact opposite pattern. At session 3 therapists of students in the high feedback condition are reporting a better alliance than with those in the low feedback condition. These scores then converge by session 9. For high feedback children, however, the alliance scores continue to improve through the end of the study, whereas for low feedback children there is a leveling off at session 9 that continues to session 12.

These patterns are offset by a low sample size--only twenty of the thirty-four subjects completed both the TASC at these three data points and the OS at all twelve sessions. In addition, the actual change in therapeutic alliance over time is rather small; on average, therapists reported an overall increase from session 3 to session 12 of only 1.6 points out of a possible 48.0 for all subjects. The change for the child report was – 0.005 over the same period. Also, on average both therapists and children reported a relatively high alliance, e.g., 37.5 was the average score at session twelve for therapists and 38.4 for children.

In summary, while the data to date cannot provide an adequate test of the hypotheses at this time, the patterns of responding appear to favor the assertion that providing therapists with objective feedback on their client's clinical progress leads to greater gains over time. These gains, in turn, appear to be associated with an improvement in therapeutic alliance as compared to the control group. It is anticipated that data currently being collected will provide an adequate sample size for statistical analysis by January 2002.

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THE ROLE OF TREATMENT FIDELITY AND FEEDBACK IN THE WRAPAROUND APPROACH

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The evolution of the system of care for children with severe emotional and behavioral disorders (Stroul & Friedman, 1986) has resulted in several new and innovative services. Perhaps the most visible new approach is called wraparound services. This approach uses a family team that develops a highly individualized service plan for a child with input from multiple stakeholders. The wraparound process is viewed as a potential alternative to out-of-home placement because a unique package of supports and services can be tailored to each situation (Brown & Hill, 1996; Eber & Nelson, 1997). In addition, the theory behind the wraparound approach suggests that individualized services, which are family-centered and child-focused, are more appropriate than categorical approaches to mental health care. Although several outcome studies have supported the wraparound approach as an alternative to traditional mental health treatment for youth (Bruns, Burchard, & Yoe, 1995; Clark, Lee, Prange, & McDonald, 1996; Eber, Osuch, & Redditt, 1996), the adherence to wraparound principles within the interventions have not been carefully studied (Rosenblatt, 1996). One way to evaluate various wraparound interventions would be to compare them to existing criteria or principles identified to guide the wraparound process (Dennis, VanDenBerg, & Burchard, 1992). Recently, an instrument to measure the implementation of the wraparound process, the Wraparound Observation Form (WOF; Epstein et al., 1998) was developed to compare wraparound practices with theoretically important components. This study investigates the relationship of adherence to wraparound principles to child and family outcomes and satisfaction. In addition, the role of outcome feedback within the wraparound process is examined.

One of the core components of the wraparound approach is the focus on specified outcomes and the inclusion of outcome assessment (Dennis et al., 1992). However, no study has investigated the importance of tracking outcome and providing feedback within the wraparound approach. Researchers have long studied the effects of behavioral monitoring on the successful achievement of behavioral goals (Kanfer & Gaelick-Buys, 1991) and it is clear that a heightened awareness of goals and progress increases the accountability of those involved in the therapeutic process (Hart, 1978). Similarly, several recent studies investigate the influence of feedback on patient progress in therapy (e.g., Lambert, Whipple, Smart, Vermeersch, Nielsen, & Hawkins, 2001; Lueger, 1998). This study is designed to provide information about monitoring outcome within the family team approach. Feedback is being provided to team members (including the parent) regarding the progress of the child. It is believed that increased feedback to team members will be met with a greater accountability, more timely interventions, and better outcomes of services.

The purpose of this study is to investigate the influence of treatment fidelity and feedback on outcomes for children and families receiving wraparound services. Specific hypotheses include: 1) Youth receiving wraparound services will have decreased problems and improved functioning; 2) Family Team meetings which have greater adherence to wraparound principles will result in better outcomes and increased family satisfaction; 3) Teams that receive ongoing feedback about the progress of the youth will be more satisfied and will be better informed regarding the case, and 4) Families that receive feedback

regarding their progress will have youth who improve more and more rapidly than families that do not receive feedback.

In this study, an experimental design with repeated measures is used to compare the outcomes of clients assigned to receive wraparound services plus feedback versus wraparound services without feedback. At this point, 72 families have entered the study with ongoing assessment continuing for approximately one third of the sample. As no new families will be enrolled in the study, this report will present the data collected at the initial team meeting (Time 1).

Participants

A total of 72 families participated in initial wraparound team meetings and agreed to participate in the study. The children in the sample consisted of 38 males and 34 females who were an average age of 13.31 (*SD* = 3.04) years old. Additional data regarding the participants is presented in the results section.

Instruments

To assess youth outcomes, several measures are administered: The Ohio Scales (Ogles, Melendez, Lunnen, & Davis, 2001), Target Complaints, Vanderbilt Functioning Index (Bickman, Lambert, Karver, & Andrade, 1998) and achievement of individually defined goals. Data are also collected regarding historical factors such as juvenile court appearances and school suspensions. Measures of family outcomes are assessed using the Family Adaptability and Cohesion Scale (FACES III; Olson, 1986). Data are also collected regarding out-of-home placements, AWOLs, and emergency calls. Members of the team are queried regarding their satisfaction with the outcomes of intervention and the degree to which they feel informed about the case.

Procedures

All parents and children scheduled for family team meetings in two counties were asked by a Parent Research Assistant (PRA) if they would be willing to participate in the study just prior to their initial team meeting. Families that agreed to participate in the study met briefly with a PRA prior to the Family Team Meeting to complete consent forms. The PRA then attended the family team meeting and rated the meeting using the wraparound observation form. Following the meeting, the PRA interviewed the child and parent using the parent interview form. At this time the families completed the Parent and Youth rated Ohio Scales, the Target Complaints, and the Faces-III, along with identifying three primary goals. For youth under age 12, only the parent completed the measures. All families are then contacted two weeks, four weeks, eight weeks, 12 weeks, and nine months following the initial team meeting to complete the same forms. The families also provide basic information regarding the amount and type of services received along with amount of contact with team members since the most recent assessment date. Both parents and children who complete the forms are compensated for their participation.

The first two youth were deliberately assigned to the non-feedback group in order to work out the details of the assessment process. From that point on, youth were assigned to the feedback condition based on a matched randomization procedure where an equal number of feedback and non-feedback slips of paper were placed in a hat and selected one at a time to make the group assignment for families that enrolled in the study. A total of 37 were assigned to feedback with 35 in the non-feedback condition with two slips of paper remaining in the hat.

Results

For the purposes of this overview, only the findings for the initial data collection are presented. A total of 72 youth were enrolled in the study. Thirty-seven were assigned to the feedback condition and 35 to the non-feedback condition. Initial scores for the two groups on the Ohio Scales Problem Severity, Functioning, and Hopefulness Scales as rated by the youth and parent are displayed in Table 1. As can be seen, the two feedback groups did not differ at the time of the initial meeting. In addition, Tables 2 and 3 display the means and standard deviations for the groups on other measures or variables of interest. Again, there were no significant differences between the feedback groups. This suggests that the matched randomization procedure was successful at creating two approximately equivalent groups.

Table 1. Initial Scores on the Ohio Scales for Parents and Youth over 12

	Feedback		***No Feedback***	
Measure	*Mean*	*SD*	*Mean*	*SD*
Parent Problem Severity	26.15	15.36	26.06	15.76
Parent Functioning	47.97	17.76	48.77	16.65
Parent Hopefulness	10.97	4.44	11.42	5.06
Youth Hopefulness	9.50	4.25	9.11	4.32
Youth Problem Severity	26.47	18.68	24.87	13.96
Youth Functioning	49.14	24.89	58.84	12.26

Note. No significant differences between feedback groups. *N*'s differ slightly for each row depending on missing data. Approximate *n* for the parents (feedback = 33; no feedback = 33) for youth (feedback = 19; no feedback = 23).

Table 2. Initial Status for Youth in the Feedback and No Feedback Groups

	Feedback		No Feedback	
Measure	*Mean*	*SD*	*Mean*	*SD*
Age	13.45	2.68	13.17	3.41
Grade	7.11	2.67	6.63	3.51
Suspensions (last year)	.64	1.49	.59	1.27
Arrests (last year)	.27	.67	.45	.97
AWOL overnight (last year)	1.39	4.5	.06	.25
Hospitalizations (last year)	.21	.54	.41	1.78
Days in out of home placement (last year)	27.18	63.03	19.09	49.11
Hours of Counseling (last year)	18.91	18.11	29.63	73.84

Note. No significant differences between feedback groups. *N*'s differ slightly for each row depending on missing data. Approximate n for the groups (feedback = 33; no feedback = 33).

Table 3. Initial Scores on Other Measures for Youth in the Feedback and No Feedback Groups

	Feedback		No Feedback	
Measure	*Mean*	*SD*	*Mean*	*SD*
Wraparound Observation Form	28.81	3.30	28.50	4.15
FACES – III Total	59.63	11.20	58.80	12.18
FACES – III Adaptability	25.67	5.60	24.74	7.72
FACES – III Cohesion	33.97	7.04	34.06	9.23
Vanderbilt Functioning Index	7.70	3.88	7.12	3.30
Target Complaints – Problem 1	3.27	.977	3.45	.91
Target Complaints – Problem 2	3.33	.82	3.52	.67
Target Complaints – Problem 3	3.36	.65	3.50	.84

Note. No significant differences between feedback groups. *N*'s differ slightly for each row depending on missing data. Approximate *n* for the groups (feedback = 33; no feedback = 33).

In terms of the initial status of the youth, average scores on the Ohio Scales indicate that the youth were exhibiting problems within the clinical range and with an average that is typical of youth receiving mental health services (Ogles et al., 2001). Similarly, many of the youth had a history of previous hospitalization (n = 9), suspension in school (n = 18), arrest (n = 16), placement in a foster home, group home or other placement (n = 26), or leaving home without permission over-night (n = 10). Only 11 of the youth had not participated in counseling in the year prior to the team meeting. Scores on the Vanderbilt Functioning Index also indicated that youth had a history (past six months) of involvement in an average of seven of 24 problem behaviors (e.g., fights, illegal behaviors) or critical events (e.g., self-harm attempt).

Parent ratings of the three target complaints were completed using a five-point scale (0 = absent, 1 = trivial, 2 = mild, 3 = moderate, and 4 = severe). As can be seen in Table 3, the average rating for all three complaints at the time of the initial meeting fell between moderate and severe. In fact, 53 percent of the parents rated the youth as severe on the primary target problem with an additional 26 percent rating the youth at the moderate level on the first problem. Similar proportions were evident for the second and third target complaints.

Scores on the wraparound observation form indicated that the Parent Research Assistant viewed the teams as being consistent with an average of 28.65 (SD = 3.72) of the 34 wraparound principle statements. This is an indication of a high degree of consistency with wraparound principles or fidelity to the model within the initial team meeting and as operationalized by the wraparound observation form.

Discussion

Initial data from this study of feedback and fidelity in the wraparound process suggests that matched randomization procedures successfully created equivalent groups in the feedback and no-feedback conditions. In addition, data collected at the team meeting suggests that the youth were experiencing clinical levels of problem behaviors and impaired functioning. Similarly, parents considered the youth's target problem behaviors to be severe or moderate. Finally, many of the youth had histories

of arrests, hospitalization, out-of-home placement, or previous counseling. Taken together, these indicators suggest that the youth referred for the wraparound team meetings were experiencing significant problems and difficulties and were likely appropriate for participation in these individualized services. Importantly, Parent Research Assistant ratings of the wraparound teams indicated that the teams were adhering to many of the guiding principles of the wraparound process. As the remaining data come in regarding the course of progress throughout the treatment (2 week, 4 weeks, 8 weeks, 12 weeks, and 9 months following the original team meeting), additional data will be available to evaluate the effect of providing feedback and adherence to wraparound principles.

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PREDICTORS OF SUBJECTIVE QUALITY OF LIFE IN MENTAL HEALTH CONSUMERS: BASELINE RESULTS

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In keeping with the Recovery approach, a recent trend is to view mental health consumer outcomes in terms of subjective quality of life (Caron, Tempier, Mercier, & Leouffre, 1998; Fossey & Harvey, 2001; Lehman, 1983). All outcomes, whether quality of life, functioning, or symptoms, are in dynamic interaction with one another, making it difficult to tease out the relationships among them (van Os et al., 1999). Adding to the complexity is the likelihood that interactions change across time. To foster a comprehensive understanding of how consumers experience recovery from severe mental illness we need to examine longitudinally their quality of life and the factors that influence and are influenced by it. This is a daunting task for researchers.

Recent research shows that symptoms, especially depressive symptoms, are strong correlates of all outcomes including quality of life (UK700 Group, 1999; Jarema & Konieczynska, 2001). Social support is another important correlate of the subjective quality of life of people with chronic mental illness (Baker, Jodrey, & Intagliata, 1992; Caron et al., 1998). Support may be derived from peer interactions (Davidson, Chinman, Kloos, Weingarten, Stayner, & Tebes, 1999), family life (Salokangas, 1997), or both. Attitudes and expectations also influence consumer outcomes. Consumers who feel hopeless about the future tend to have poorer outcomes (Hoffmann, Kupper, & Kune, (2000). A range of attitudes about the self, including self-esteem and empowerment, may shape the consumer's involvement in the recovery process (Rogers, Chamberlin, Ellison, & Crean, 1997).

The current study uses a longitudinal approach to investigate the correlates of subjective quality of life for consumers with severe mental illness. We hypothesize that psychiatric symptomatology, social support, attitudes that relate to the self and empowerment, behavioral changes that consumers report, and the relationships and activities that consumers feel have facilitated their recovery all correlate with quality of life. In addition, we test whether mental health providers' ratings of consumer functioning predict consumer quality of life. We report here the baseline data from an eventual two-year project.

Participants

Participants in the study were recruited from the rolls of the Central Ohio Mental Health Center. Criteria for inclusion were being over the age of 18 and 508-eligibility (i.e., a prior history of psychiatric hospitalization or continuous outpatient treatment for two years or more). Following in-person or telephone screening, participants provided written informed consent and were interviewed by a trained research assistant. Participants were paid $10 for completing the baseline interview that lasted roughly 40 minutes. When applicable, participants provided the name of their mental health provider who was then sent a research questionnaire. Baseline data were collected over an eight-month period beginning in July, 2000.

One hundred nine mental health consumers participated at baseline, 55 percent females. Their ages ranged from 18 to 73 years (mean = 41.1, *SD* = 11.7). Ninety percent were Caucasian, matching the demographics of Delaware and Morrow counties. Over half (53.7 %) were high school graduates and 25 percent attended or completed college. The large majority (80.7 %) was unemployed. The participants reported persistent mental illness: average years since first diagnosis with a psychiatric condition was 28.2 (*SD* = 13.8); 78 percent had been hospitalized for a psychiatric condition at least once.

Eleven mental health providers supplied corresponding data on 76 consumer participants. All were employed by Central Ohio Mental Health Center, six at the Delaware County site, five in Morrow County. They reported an average of 10.4 years of work experience in the mental health field (*SD* = 7.5) and 6.3 years' employment with COMHC (*SD* = 5.6). Nine of the 11 identified themselves as CSPs or case managers.

Measures

The battery of research instruments included a demographic questionnaire, the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988); the Ohio Mental Health Outcomes Survey Adult Consumer Form A (Ohio Department of Mental Health, 2000); and two instruments developed by the researchers, a Behavioral Outcomes Checklist, and a consumer-generated Relationships and Activities that Facilitate Recovery Scale (RAFRS). Mental health providers completed the Ohio Mental Health Outcomes Survey Provider Adult Form A (ODMH, 2000).

The MSPPS is a 14-item questionnaire that measures the quality of support provided by friends, family, and "a special person." The instrument has strong internal consistency in diverse populations (Cronbach's alphas ranging from .84 to .92) (Zimet, Powell, Farley, Werkman, & Berkoff, 1990).

The Ohio Mental Health Outcomes Survey assesses consumers' subjective quality of life, level of psychiatric symptom distress, and recovery-related attitudes. The Quality of Life component is a 15-item Likert scale based on Lehman's Quality of Life Inventory (1983) and yields a general score that we used as the outcome measure in this study. The 15-item Symptom Distress scale is composed of the Depression and Anxiety scales from the Brief Symptom Inventory (Derogatis & Melisarotos, 1983). In previous research, these scales showed impressive internal consistency, with alphas ranging from .85 to .90. Recovery attitudes were measured using the Making Decisions Empowerment Scale (Rogers et al., 1997), a consumer-designed, 28-item questionnaire with strong internal consistency (alpha = .86) that has five subscales: Self-esteem, Power, Righteous Anger, Optimism, and Community Activism.

The 19-item Behavioral Outcomes Checklist was developed by the authors and includes a four-item negative change subscale (suicidal thoughts, unprotected sex, spending money impulsively, and time alone watching television) and a positive change subscale (social involvement, feeling at peace, feeling spiritually fulfilled, and feeling that progress is occurring in recovery). Participants indicate changes in these behaviors compared with the previous six months. Despite removing one item (unprotected sex) because it was negatively correlated with other scale items, the alpha for the negative subscale was .29. Internal consistency for the positive change subscale was somewhat better (alpha = .48).

The Relationships and Activities that Facilitate Recovery Scale (RAFRS), lists 18 factors that research (Roth, Crane-Ross, Hannon, & Hogan, 1999) and advice from consumers suggest are influential in recovery. They range from the consumer's relationship with CSP worker and workplace supervisor to activities involving taking medication, talking to peers with psychiatric problems, and prayer. For each item, respondents indicate "no contact," "helped a lot," "helped a little," "didn't help," or "made things worse." Finally, respondents indicate which two of the listed items have been most influential in their

recovery over the past six months. Because many consumers answered "no contact" for many items, internal reliability could not be calculated.

The Adult Provider Form A of the Ohio Outcomes Survey is a composite of items from other questionnaires and yields subscales rating consumers' performance of activities of daily living, involvement in meaningful activities, and recent experience of crime victimization.

Results

Bivariate correlations were calculated for the major variables in the study. As expected, Quality of Life was strongly negatively correlated with Symptom Distress, r (103) = -.553, $p < .001$, and positively correlated with the MSPPS Friend Support subscale, r (101) = .50, $p < .001$; Family Support subscale, r (102) = .36, $p < .001$; Self-Esteem scale, r (99) = .46, $p < .001$, and the Positive Behavioral Change subscale of the Behavior Outcomes Checklist, r (103) = .39, $p < .001$. Curiously, Quality of Life was negatively correlated with mental health provider ratings of consumer performance of Activities of Daily Living, r (71) = -.24, $p <.05$ and involvement in Meaningful Activities, r (70) = -.34, $p < .01$.

Hierarchical regression techniques were used to identify the factors that predict consumers' subjective quality of life scores. Blocks of consumer-rated variables (e.g., Symptom Distress) were entered first in regression equations; mental health provider ratings were entered last. This provides a way of testing whether provider perceptions can predict consumer subjective quality of life scores over and above measures the consumers themselves provide. The five blocks of variables entered, in order, were: Symptom Distress, Social Support, Self-Esteem, Behavioral Outcomes, and Provider Ratings. Together, the equation accounted for 60 percent of the variance in quality of life scores (adjusted R^2 = .599, R = .801). To refine our analysis, we performed a second, stepwise regression using the subscales of each predictor at each step, excluding any subscales that did not significantly contribute to the prediction of quality of life scores. This process revealed that for each block of variables, a single measure was significantly related to quality of life. Table 1 shows that the final, refined, five-step model included Depressive Symptoms, Friend Support, Self-Esteem, Positive Behavior Change, and Provider rating of Meaningful Activities. Together, these measures account for 58 percent of the variance in quality of life scores, supporting our hypothesis that all five variables, including provider ratings, are associated with self-reported quality of life. It is important to note that the exclusion of certain measures in a block of variables does not necessarily imply unimportance, but simply a lack of statistically significant benefit after including another component of that block.

Responses to the Behavioral Outcomes Checklist item, "In the past six months have you felt you were making progress in recovery?" showed that 75.7 percent of consumers indicated they were making progress at the same or better rate than six months before. Furthermore, on the RAFRS measure, participants indicated that the two most influential factors in recovery were their relationship with their CSP worker (20.1 % of all ratings) and taking medication (9.2 %). Other positive influences on recovery were, in order, relationship with spouse (8.7%), best friend (7.8%), use of a drop-in center (7.3%) and vigorous exercise (6.4%).

Table 1. Hierarchical Regressions of Symptoms, Social Support, Self-Esteem, and Provider Ratings of Meaningful Activities on Consumers' Subjective Quality of Life (n = 66)

	R	Adjusted R^2	F Change	p	β[a]
Step 1					
Depressive Symptoms	.615	.369	38.97	.000	-.345***
Step 2					
Friend Support	.690	.459	11.70	.001	.240*
Step 3					
Self-Esteem	.708	.478	3.23	.077	.190*
Step 4					
Positive Behavior Change	.758	.547	10.44	.002	.265**
Step 5					
Meaningful Activities	.780	.576	5.18	.026	-.194*

[a] Two-tailed tests of significance for standardized coefficients in final regression equation.
*** $p < .001$; ** $p < .01$; * $p < .05$

Discussion

Subjective quality of life among individuals with serious mental illness can be well predicted on the basis of their own perceptions of clinical, environmental, and cognitive factors since this set of variables predicts an impressive 60 percent of the variance in subjective quality of life. It is clear from our work and others (e.g., UK700 Group, 1999) that symptoms, especially depressive symptoms, powerfully affect consumers' satisfaction with life. This single variable accounted for more than one-third of the variance in quality of life scores in our final model. However, friend support satisfaction and self-esteem coupled with positive behavior change make important contributions to our understanding, too. The social support finding confirms prior work by Baker et al. (1992) and Caron et al. (2000). The range of these factors attests to the complexity of the quality of life concept. While provider ratings added some to the final model, our findings underscore the need to make primary the subjective assessment of consumers' symptoms, attitudes, and support satisfaction. Quality of life appears to reflect an interaction between the internal world of the person (attitudes), the disease process itself (symptoms), and a social environment that can provide resources and coping (social support).

Most of our findings are in the expected direction. However, we must note the curious negative correlation between the providers' ratings of consumer involvement in meaningful activities and the consumers' subjective quality of life. This may be an extreme version of the disconnect between consumer and provider perceptions reported by Crane-Ross, Roth, and Lauber (2000) or a statistical aberration.

Our findings concerning the factors consumers consider important in recovery substantially support Roth et al.'s (1999) list. In both studies, medication, self-initiated activities (including exercise), family support, and relationships with professional personnel are mentioned. However, medication was the most-cited factor in Roth et al.'s sample (31%) and case managers and counselors among the least (9% and 8 % respectively), whereas the current participants placed relationship with CSP worker first by a wide margin over medication. This suggests that while consumers view these factors as facilitating recovery, variations in treatment regimes and personality matching may account for differences in their relative importance. These results highlight the need to both reduce symptoms through medication and nurture supportive relationships.

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GOODNESS OF FIT IN MANAGED MENTAL HEALTH CARE: SERVICES, OUTCOMES, AND LOCAL CONTROL

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Two key theoretical premises of managed care are that standard service protocols, best practices, or benchmarks exist that can 1) guide quality of care, and 2) be modified to improve quality or control cost. However, many efforts to define a standard menu of services to be made available in specified quantities (i.e., best or evidence-based practices) have been less than enlightening. This is particularly true with regard to providing services for citizens who are severely mentally disabled. One reason may be that while, it is generally acknowledged "...that the population is heterogeneous, and what works in some instances may not be appropriate in others," (NIMH, 1991) previous efforts to describe this heterogeneity and to use this information to plan and manage services have been only moderately successful.

Traditionally adults with severe mental disabilities have been described in several ways. The most widely recognized classification system is the diagnosis-based DSM IV (APA, 1994; Gray, 1984). Here individuals have been described in terms of the characteristics of their illness. The DSM-IV system provides important guidance for the prescription of medication and other somatic interventions, however it is not as helpful for predicting the need for or utilization of other community mental health services (Grove, 1987; Matarazzo, 1983; Spitzer & Fleiss, 1974; Wilson, 1993). Another approach, Diagnostic Related Groups (DRGs), is based on illness-episodes (Goldman, Pincus, Taube, & Regier, 1984). DRGs were initially developed more than 20 years ago to help manage inpatient care. They have however, shown limited ability to provide clinical pictures (Holcomb & Thompson, 1988) or predict resource utilization and cost (English, Scharfstein, Sherl, Astrachan, & Muszynski, 1986; Taube, Lee, & Forthoffer, 1984; English & McCarrick, 1986). DRGs are still not available for community mental health or community support systems. Approaches such as the Level of Need Care Assessment (Uehara, Smukler, & Newman, 1994) are based on need profiles. This system has been used to identify need patterns and gaps in community services.

While the above approaches are valid for specific purposes, a process that has broader utility has been needed. One barrier to the development of best practice models and the management of recovery-oriented community support systems or capitated managed care systems has been the lack of more holistic pictures of the citizens to be served. This has also limited attempts to assess the effectiveness of mental health services and policy (Christianson, Dickey, & Frank, 1993; Cole, Reed, Babigan, Brown, & Fray, 1994; Sharfstein, 1994).

To address the above limitations, the Goodness of Fit study has employed a process known as Cluster-Based Planning and Outcomes Management (Rubin et. al., 1992; Rubin et. al., 1999). This approach, derived in part from the cognitive psychology literature, seeks to describe mental health consumers in terms of "prototypes " (Smith & Medin, 1981) or "Cluster*s*" that are based on a multitude of characteristics. This prototype model assumes that those who work with such special populations identify

naturally occurring clusters whose typical members share common strengths, problems, treatment needs, and prospects for recovery (Fiske, 1980). In contrast to more classical categorization approaches that require individual cases to meet necessary and sufficient conditions, clusters are often characterized by a set of correlated or typical features (Smith & Medin, 1981). Descriptions of members of different clusters can take into account both the strengths and weaknesses of members of the group, and can consider "whole" people embedded in history, community, and social contexts. They frequently both describe both common elements and capture the variability among members of the same cluster (Holland, Holyoak, Nisbett, & Thagard, 1989). Cluster descriptions of adults with severe mental disabilities would be expected to include a broad array of information such as: social and living skills, work history and work skills, family role and support, history and/or effectiveness of treatment, psychiatric symptomatology, interference from substance abuse or chronic physical health problems, housing and living environments, personal strengths, and integration in the community (Rubin & Taynor, 1990; Rubin et. al., 1992; Rubin & Taynor, 1993; Herman & Mowbray, 1991; Luke, Mowbray, Klump, et. al., 1996; Shern, Wilson, Coen, Barsch, & Bogeart-Martinez, 1990).

Between 1988 and 1996, research conducted using this conceptual approach identified generalizable clusters of adults with SMD. Clusters were identified in a multi-step process using functional assessment ratings, statistical clustering procedures, and expert-based knowledge elicitation and validation techniques involving consumers, family members and providers. The basic methods were replicated in eight different geographic service areas in Ohio. The overall effort resulted in holistic Prose Cluster Descriptions of individuals who share common strengths, problems, treatment histories, social and/or environmental contexts, and life situations (Rubin & Panzano, in press).

In each of the eight geographical service areas, the process also identified targeted treatment goals for each cluster (Rubin et. al., 1992). The pattern of treatment goals suggested that cluster had considerable utility for differentiating desired outcomes among clusters. Empirical evidence also indicated that clusters had utility for predicting costs and the utilization of presently available resources and services (e.g., case management and hospitalization) (Rubin et. al., 1992; Rubin, Kurth & Coyne, 1997). However, the question remained as to whether the present services represented the “best practices” for members of each cluster.

Study Methods

The Goodness of Fit research is being conducted in two urban areas, both of which participated in the cluster development and validation efforts described above. Three large mental health centers serving a total of 5000 to 6000 adults with SMD initially agreed to serve as research sites. However, over the course of the study, one center withdrew. The overall research objectives are:

1. To use a community-based, expert-driven planning process to define best practice models for each cluster,
2. To pilot-test portions of these models in mental health agencies for a period of two years,
3. To assess whether clients who receive these model services are doing better than clients, in the same cluster, at the same agency, who do not receive the model services,
4. To test the overall “goodness of fit” hypothesis which states that there is a positive association between the degree of fit between prescribed services and actual services, and the extent of progress made toward targeted outcomes.

Progress To Date

Results of the model building efforts were summarized in New Research in Mental Health, Volume 13. Service models to be tested and planning for the implementation of the pilot-tests at the two study agencies were described in New Research in Mental Health, Volume 14.

Briefly, Study Site A is pilot-testing a best practice model for individuals in the more traditional "SAMI" cluster. Members of this cluster are Adults with Serious Problems with Drugs/Alcohol, Mental Health & Daily Living. The Goodness of Fit model that was created by a local, diverse expert planning group includes the following services:

Dual Diagnosis ACT Team	Psycho-Social Rehab Groups	Independent Payees
Dual Diagnosis Therapy Groups	12-Step Consumer Groups	

This model had much in common with the dual diagnosis treatment model established in New Hampshire at Dartmouth and recognized as a best practice by the ODMH. Since Study Site A was also receiving funding to implement the Dartmouth/New Hampshire model as part of an ODMH/ODADAS joint initiative, we have been able to consider all clients in the cluster as one large group whose members receive varying degrees of the Goodness of Fit model services.

Study Site A has just over 100 clients in the pilot-test cluster. Funding and staffing problems caused a one-year delay in start-up of the pilot–test (until July 2000), and have presented ongoing difficulties to full implementation of the Goodness of Fit Preferred Service Model. However, 25 consumers have been assigned to the Dual Diagnosis ACT Team and the agency is currently serving 40 additional members of this cluster under the ODMH/ODADAS joint initiative. Thus approximately 65 cluster members are receiving some level of Goodness of Fit model services.

Study Site B is pilot testing services for a cluster of adults who are Severely Disabled In Many Life Areas. These individuals have often had long histories of hospitalization. They suffer considerable interference in their lives from psychiatric symptoms, have lost social and self-care skills, often isolate themselves, and require considerable support from mental health agencies to manage on a day-to-day basis. The model developed for members of this cluster employs a number of group-based interventions.

Study Site B chose to combine three of the model services (Medication Education Groups, Groups Focused On Preventing Decompensation, And Disability Awareness Groups) into one, 17-week program known as the Symptom Awareness and Management group (SAM). This program was implemented in August of 1999. To-date, five groups have completed the core 17-week Symptom Awareness and Management (SAM) program and a sixth group began the curriculum in September 2001. Study Site B also combined two other model services (the Independent Living Skills Training group and the Be Your Own Case Manager Training group) to form the Living Independently For Everyone (LIFE) program. The LIFE groups began in the summer of calendar year 2000. Early in the pilot-test, the agency created an additional group (the Alumni Group) to accommodate consumers who had finished one group but wished to continue meeting until new SAM and/or LIFE groups were started. As of this date 52 cluster members have participated in the pilot test of the preferred services. Forty-two consumers have participated in one or more SAM Groups, ten consumers have received one or more LIFE group services, and six consumers have received both SAM and LIFE group services.

Data collection

Data on outcomes, services, and costs have been collected on members of each cluster for several years at each site. However, to test the Goodness of Fit hypotheses, it was necessary to gather additional data at each research site. Data collection systems that were affected can be classified into three general categories: 1) Service data, 2) Fit assessment data, and 3) Enhanced outcomes.

Procedures were developed at each site to allow for the coding, recording, and tracking of the pilot services. In most cases, data collection modifications were made to the agencies' existing billing system. In a few cases "service logs" were created for use by staff in tracking specific pilot services.

As Goodness of Fit is essentially an individual-level construct, the research team also worked with staff at each site to develop methods to assess the level of "fit" of each potential subject for pilot test services. These fit assessment measures incorporated the consumer's readiness to engage in recovery-oriented services as well as the match between the client's individual treatment goals and the focus of the model services. External barriers to participation such as transportation were also identified at Site B. Fit assessments are made by case managers every six months at Site A and every three months at Site B.

In order to improve the likelihood of detecting change on cluster-based outcomes over the limited, two year pilot-test, the research team decided to enhance the measurement process by: 1) dissecting some of the global scales measuring specific cluster-based outcomes, and 2) adding one or two additional items related to the scales. These Enhanced Outcomes were intended to allow for finer discrimination of progress.

Preliminary Data Analyses and Results

Below are some of the results from preliminary analyses of the data. Findings were reported to each site during the summer of calendar year 2000.

Study Site A: Preliminary Outcome, Service & Cost Profile for Adults with Serious Problems With Drugs/Alcohol, Mental Health & Daily Living (Note: Because Site A was just beginning to implement its pilot-test, these data represented the pre-pilot baseline data).

- Slightly over 400 outcome ratings had been completed for members of this cluster over the course of five rating periods beginning in February 1995 and ending in February 1999. The ethnic make-up of the group is about two thirds Caucasian, one fourth African American and one tenth Hispanic. About two thirds of the 400 ratings relate to males; the remaining one third deal with female cluster members. However, data indicate that in recent years, the ratio of males to females in this cluster is approaching one-to-one.
- This is a high cost cluster! Data from FY 1999 indicate that the average cost of care was higher for this cluster than for any other at Site A. High hospital costs account for a large part of this. In fact, hospital costs represent nearly one half of the estimated one million dollars that was spent on 118 members of this cluster in FY 1999. Further, during the one-year period between February 1998 and February 1999, over one half of the members of this cluster for whom outcome ratings were available were hospitalized at least once. The average hospital cost for these 62 people approached $9,400 per year.
- Agency-wide snapshots of functioning of cluster members taken at each rating period indicate that during that time period they were functioning "moderately well" to "well" on many targeted treatment goals. These included their ability to complete basic living skills, get their regular health needs addressed, and to avoid getting into trouble with the criminal justice system. Their psychiatric

symptoms continued to interfere in their lives at a moderate level, however they were beginning to overcome their denial of their addiction. They were consistently getting the public benefits to which they were entitled. On the other hand, they continued to have problems developing social connections to the drug-free community. Overall, even though changes were seen in performance on some outcomes between some rating periods, no pattern of improvement or decline was evident.

- Some gender and ethnic differences also were observed within this cluster. Hispanics were found to be doing better than African Americans and Caucasians on two outcomes (interference from psychiatric symptoms and being connected to a drug free community). Females were doing significantly better than males on six outcomes (e.g., overcoming denial, connecting to a drug free community, maintaining health).
- Community support program staff felt many more members of this cluster could be working (n = 273) than were presently working (n = 80). Overcoming denial appeared to be a key factor considered by staff in discriminating between cluster members who could and who could not work. Also, people who were presently working looked very similar on many outcomes to those who "could be working".
- Finally, data support the notion that overcoming denial is a particularly important outcome for members of this cluster. Overcoming denial was significantly related to four other outcomes. It was most strongly linked to attending substance abuse treatment in the community, followed by controlling addictive behavior, maintaining one's health, and avoiding involvement with the criminal justice system. The direction of causality is unknown, however, regardless of which outcomes are "causes" and which outcomes are "effects," the findings suggest that these outcomes are linked in meaningful ways.

Study Site B: Preliminary Test Of The Goodness Of Fit Hypothesis For Adults Who Are Severely Disabled In Many Life Areas (SAM GROUPS ONLY)

- The analyses shown in Table 1 the on the next page are based on 86 consumers who were consistently judged "fit" and 40 consumers consistently judged "not fit" to receive SAM Group services. Remember that the SAM groups began at the beginning of FY2000. Sample sizes for comparison groups are quite small so findings should be interpreted cautiously (but with optimism!) at this point.
- Preliminary analyses provide some support for the goodness of fit hypothesis. Cluster members who were judged fit for SAM and who received SAM (n = about 10), were doing better in three out of four outcome domains as of the second half of FY 2000, than Cluster members who were judged "fit" but who were not receiving SAM services (n = 40). The domains in which SAM participants were reported as doing better than those judged "fit" but not getting SAM (based on an 11-point rating scale) were: community living (7.4 vs 6.5, p <. 05); independence (8.0 vs. 6.8, p < .05); and, involvement in treatment (7.8 vs 6.5, p < .05). This finding was supported by both parametric and non-parametric tests. No difference was found between these groups in the symptom management domain (6.9 vs 6.4).
- Finally, data gathered during the second half of FY 2000 indicates that members of both groups judged to be 'fit' for SAM were doing better in all four-outcome domains than those judged "not fit". However, this is may be a function of a selection bias that assumes that people need to be functioning at a certain level in order to be seen as "fit" for SAM.

Next Steps

Pilot testing and data collection continue through FY2002. Face to face interviews with consumers and staff will also be conducted. Data analysis, report preparation and dissemination will occur in FY2003.

Table 1. Are There Differences in Outcomes Between People "Fit[a]" for SAM (Enrolled/Not Enrolled) and People Not Fit/Not Enrolled[b]?

TIME PERIOD	GETTING NEEDED SAM?		NOT FIT / NOT IN
First Half FY 2000	**NO**	**YES**	
Standard Outcomes	N = 36	N = 7	N = 10
Community Living	6.6	6.8	6.6
Independence	6.4 ↔	7.7	7.0
Symptom Mgmt.	6.5	6.9	6.8
Involvement in Tx	6.6 ↔	8.3 ↔	7.0
Second Half FY 2000			
Standard Outcomes	N = 43	N = 10	N = 19
Community Living	6.5 ↔	7.4	4.9
Independence	6.8 ↔	8.0	5.0
Symptom Mgmt.	6.4	6.9	5.2
Involvement in Tx	6.5 ↔	7.8	5.5
Enhanced Outcomes	N = 10	N = 2	N = 8
Understand Meds	2.4 ⇠⇢	5.0	-
Maintain Psych Meds	3.6	4.7	2.6
Anxiety & Depression	3.6	4.0	2.7
Anger	3.2	4.3	3.1
Attending to Health	3.7	5.0	-
Crises & Decomposition	3.5	3.5	2.7
Involvement in TX	3.5 ⇠⇢	4.9	3.3

Note. Within row, bolded typeface indicates value is different from other 2 values in the row.
$p < .10$ ↔ $p < .20$ ⇠⇢
[a]Analyses based on 86 consumers who were consistently judged "Fit" (meanfit = 2) or 40 consistently judged "Not Fit " (meanfit = 0).
[b]Formal analyses should be interpreted with great caution due to small and unequal sample sizes. Information should be viewed as descriptive and tentative.

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ELDER SUICIDE RISK: TESTING A COMPREHENSIVE MODEL

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The rate of elder suicide in the United States for 1998, defined as suicide in individuals age 65 and older, was 16.9 per 100,000 as compared to a national rate of 11.3 for that year. The elder suicide rate translates into 5,803 suicide deaths with 4,847 or 84 percent of those suicides committed by men. Thus, the suicide rate for men in this age group was 34.1 per 100,000 compared with a rate of 18.6 for men in general. By comparison, the suicide rate for elder women for 1998 was 4.7 compared with the overall national rate for women of 4.4 per 100,000. From these data, it is clear that elder suicide is a significant mental health issue in the United States and one that has been targeted by the Surgeon General as a major focus of the national suicide prevention plan (U.S. Public Health Service, 1999).

Despite this high level of suicidal behavior in the elder population, little is known about the prediction of suicide for this group past the identification of common and age-associated risk factors (Blazer, 1991; Osgood & Thielman, 1990). The predominant focus of the extant literature on elder suicide has been the identification of individually isolated risk factors. For example, according to Canetto (1992), gender is a clear risk factor for suicide in the elderly, with older men being at higher risk than older women. Widowhood and forced retirement are additional risk factors for older adults (Warnick, 1995). Likewise, physical illness has also been associated with a higher risk of suicide in the elderly and, according to Steffens and Blazer (1999), may contribute to over one-third of suicides in older individuals. Empirically identified risk factors, which have been identified across age groups, include drug and alcohol abuse, depression, hopelessness, and social isolation (Rogers, 1992; Rogers, Alexander, & Subich, 1994), with a history of cumulative loss specifically identified for older individuals (Steffens & Blazer, 1999).

Research up to this point has been primarily atheoretical and focused on studying individual risk factors in isolation or pulling together a small number of risk factors together as correlates (Rogers, 2001a). For example, Hill et al. (1988) investigated hopelessness and depression as two factors to predict suicidal intent. These authors found that hopelessness and depression, in addition to perceptions of health, predicted suicidal ideation scores. However, in this study only 27 percent of the variance in suicidal ideation was accounted for by those three factors. A more recent study by Mireault and deMan (1996) included the variables of age, gender, marital status, living arrangements, health satisfaction, perceived religiousness, alcohol use, self-esteem, depression, life stress, and social support to predict suicidal ideation. Utilizing multivariate regression analysis, Mireault and deMan (1996) accounted for 32.5 percent of the variance in suicidal ideation. The prediction equation included social support as the best predictor (accounting for 17 percent of the variance alone), then health satisfaction, gender, living arrangements, and alcohol use.

The purpose of the current research is to extend the work of Mireault and deMan (1996) by identifying and bringing together all the risk factors identified in the literature on elder suicide into a comprehensive predictive model (Figure 1) grounded in theory and to investigate the interrelations of these factors. Within this model, psychological resilience is defined to reflect positive approaches to life and the engagement in activities (i.e., coping strategies) that enhance one's ability to effectively deal with stressful situations. Sociological factors are those relational and status variables that have been shown in

the empirical literature to be related to a higher risk for suicide. Finally, psychological risk factors or correlates are those factors such as depression, hopelessness, and the experience of stressful life events that have been linked in that they empirically add to suicidal behavior. These three latent categories are related to the underlying theory and represent areas of self-constructions that cover various motivational categories including spiritual, social, psychological and biological motivations (Rogers, Anderson, Bromley, & Krietz, 1999, 2000). In addition to these variables, demographic information such as age, race/ethnicity, gender, physical health, alcohol and drug dependence, and religiosity are identified as further risk factors.

Investigating all of the risk factors related to elder suicide together will allow the creation of a model with the potential to account for additional variance in suicidal ideation. Additionally, the utilization of structural equation modeling as an analytic technique will allow for the investigation of how interrelated constructs influence each other in the prediction of elder suicidal ideation.

The anticipated implications of this research are three-fold. First, we anticipate that the research will result in an increased understanding of elder suicide that will lead to increased accuracy in the assessment and reporting of suicidal ideation among older adults. Second, the increased understanding of elder suicide issues may lead to the development of more targeted intervention and prevention strategies for older adults. Third, because the model is embedded in the existential-constructivist theory of suicide (Rogers, 2001b) which considers suicide more from a motivational and meaning perspective than as a specific result of psychopathology, it seems particularly appropriate for conceptualizing suicidal behaviors in the lives of older adults.

Participants

Data have been collected on 252 of the anticipated 350 research participants needed for the study. Participants have been recruited from assisted living facilities, community mental health centers, senior centers, and senior social organizations throughout northeastern Ohio. Of the recruited sample, 26.8 percent are men and 73.2 percent are women. In terms of race, 63.9 percent self-identified as Caucasian, 29 percent as African-American, with the remaining 7.1 percent identifying across a variety of other groups. The majority of the participants were retired (62.7%) and either married/partnered (23.4%) or widowed (48.8%).

Measures

The latent factors are being assessed using the following measures:

- Psychological Risk
  - Balanced Inventory of Desirable Responding (Paulhus, 1994)
  - Geriatric Depression Scale (Yesavage et al., 1983)
  - Geriatric Hopelessness Scale (Fry, 1984)
  - Life Experiences Scale (Sarason, Johnson & Siegel, 1978)
  - Physician Assisted Suicide Scale (Domino, Kempton & Cavender, 1996)
- Sociological Risk
  - Demographic variables including the following:
    - Psychiatric history
    - Past suicidal behavior
    - Meaningful activities
    - Health status
    - Marital status

Drinking Problems Index (Moos, 1986)
Social Isolation Scale (Dean, 1956)

Psychological Resilience
Coping Measure (Billings & Moos, 1981)
Life Satisfaction Index-Z (Wood, Wylie & Sheafor, 1969)
Life Orientation Test (Scheier & Carver, 1985)
Religious Commitment Inventory (Worthington et al., 1999)
Self-Esteem Scale (Rosenberg, 1965)

Elder Suicide Risk
Suicide Behavior Questionnaire (Linehan, 1981)

Data Analysis

Structural equation modeling (SEM) will be used as the primary statistical analysis technique. SEM is a collection of statistical techniques that allow questions involving multiple regression analyses of factors to be answered (Ullman, 1996). Thus it is a procedure that combines exploratory factor analysis and multiple regression. Using this procedure, it will be possible to test the hypothesized three dimensional model and to compare this model to the more restricted model of Mireault and deMan (1996) in terms of explaining variance in suicidal behavior. Literature on the use of SEM recommends a baseline of 200 subjects, with an additional three to five subjects per latent trait measure to achieve adequate power (Hatcher, 1994). A total of nineteen variables measuring the latent traits will be assessed; therefore, approximately 350 subjects are needed to fulfill this requirement. The SEM analysis will be conducted using AMOS 4 with the Suicidal Behaviors Questionnaire (Linehan, 1981) as the criterion variable. SEM analyses will be conducted upon the completion of the data collection for the entire projected sample of 350 participants.

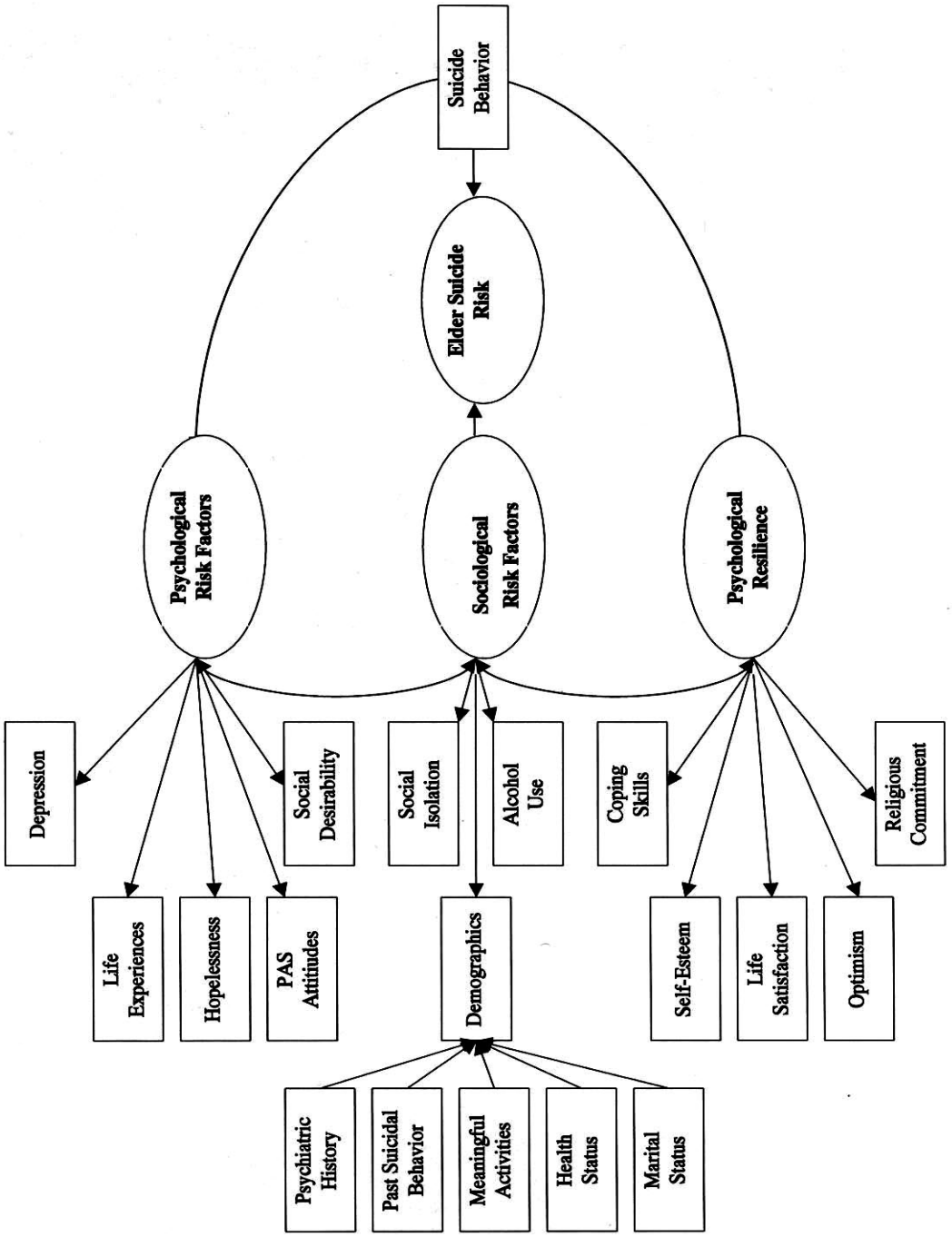

Figure 1. Comprehensive Predictive Model.

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PREDICTING OPTIMAL HOUSING PLACEMENT FOR PEOPLE WITH SERIOUS MENTAL ILLNESSES

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Having choice over one's living environment is important to both the physical and psychological well-being of mental health service consumers (Carling, 1990; Langer & Rodin, 1976; Srebnik, Livingston, Gordon, & King, 1995). Those who have greater say in their housing arrangements are less likely to move and report more life satisfaction than consumers who have little say (Srebnik et al., 1995). Mental health service consumers indicate a preference for housing that affords them greater autonomy. As part of recovery from serious mental illness, consumers are expressing increasing interest in having more control over their community living arrangements and aspiring toward higher levels of personal responsibility within the home (Seilheimer & Doyal, 1996).

Consumers can succeed in less restrictive, independent living situations when appropriate supports are in place (Anthony & Blanch, 1989; Braun, Kochansky, Shapiro, Greenberg, Gudeman, Johnson, & Shore, 1981; Champney & Dzurec, 1992). However, no one has systematically investigated the determinants of successful housing adjustment. Studies have shown that variables such as symptomatology, premorbid functioning, age of onset, duration of illness, insight, and social functioning are important to overall outcome for people with serious mental illnesses, such as schizophrenia. However, these factors have not been investigated to ascertain their role in optimal housing and independent living placements. By learning more about those who are successfully managing the symptoms of their illness and who are living independently, perhaps we can identify the domains that are associated with success in the least restrictive housing situation.

Previous research (Busch & Saetermoe, 1999) examined the psychosocial characteristics of consumers who live independently compared to those with similar diagnoses who cannot adjust to more independent forms of living. Social support and symptom severity were found to play an important role in this regard. However, factors other than those examined in that study may be related to success in independent living. This research furthered past work by including a wider range of diagnoses, a wider range of housing situations, and a wider range of determinants. The goal of the overall research project was to identify factors necessary to support consumers in least restrictive housing situations and then to identify objective, self-report measures of these factors to determine whether they are able to predict optimal housing placement.

This study was conducted in three phases. The goal of Phase One was to interview a small but representative sample of consumers who were living independently to identify factors perceived by them to be important to independent living. The goal of Phase Two was to conduct a literature review to locate instruments that would measure each of the factors identified in Phase One. The goal of Phase Three was to administer the instruments to a separate, larger group of consumers in various housing situations to see if their scores on these measures were able to predict optimal housing placement adequately. Given the space limitations of this report, Phases One and Two are only summarized briefly.

Phase One Participants

In-depth interviews were conducted with twenty-six consumers who had made successful living transitions (as determined by their case managers) to identify factors that play a role in supporting mental

health service consumers in optimal housing. Participants were recruited through mental health agencies where they were receiving case management services if they met the following criteria for inclusion in the study (as determined by their case managers): (1) had one of the following diagnoses--any schizophrenia spectrum disorder, bipolar disorder, major depression, paranoid personality disorder, schizoid personality disorder, or schizotypal personality disorder; (2) demonstrated success in independent living or assisted living and recovery; (3) had been living independently or in assisted living successfully for a period of at least one year; and (4) demonstrated the ability to meet their daily living needs with minimal assistance. The vast majority of the participants (92%) were living independently in the community. One participant was living semi-independently and one in a board and care home. The demographic information for the participants in Phase One is summarized in Table 1.

Table 1. Demographic Information of Participants in Phase One

Age (Mean/Range)	41/25-58
Sex	
-- Female	34.6%
-- Male	65.4%
Ethnicity	
-- Caucasian	65.4%
-- African American	30.8%
-- Biracial	3.8%

Diagnosis	
-- Schizophrenia	53.8%
-- Schizoaffective	15.4%
-- Bipolar Disorder	23.1%
-- Depression	7.7%

Phase One Procedure

Case managers informed eligible clients about the study and asked them to contact the researcher if they were interested in participating. Interview appointments were scheduled for those who indicated an interest. After obtaining informed consent, the researcher administered a brief questionnaire to assess general demographic information about each participant, including age, sex, ethnicity, living arrangement, and diagnosis. The audiotaped interview then began with the researcher reading questions designed to identify factors the participants felt were important to supporting consumers in optimal housing.

After the interviews were complete, they were first reviewed to appreciate overall content and style. Then, each was transcribed and a mutually exclusive and exhaustive list of themes was developed (i.e., items consumers identified as important to successful independent living), consisting of 74 items. Ten consumers were randomly selected to rank each item on a five-point Likert scale based on its perceived importance to reduce the number of items to a more manageable number. The remaining 52 items were typed onto index cards and used in a concept mapping process (Trochim, 1989).

Phase One Results

Concept mapping is a methodological tool that can be used to develop a conceptual framework for a multifaceted construct. The raw data from the sorting task were entered using the Concept System, Inc. (1996) software. Five participants' data were excluded from the sorting analyses because they did not appear to understand the instructions of the task. Therefore, the overall concept mapping analyses included sorting data from 21 consumers. Nonmetric multidimensional scaling (MDS) analysis with a two-dimensional solution was used to analyze the matrix. This MDS pattern was used as input to the cluster analysis which forced the analysis to partition the MDS configuration into clusters in two-

dimensional space that do not overlap. The initial interviews and resultant concept mapping analyses led to the identification of the following eight domains as important to independent living for persons with serious mental illnesses: social/leisure, taking personal responsibility, personal/self-care, psychological resources, being independent, self-efficacy/spirituality, skill-acquisition/support, and government assistance.

Phase Two Procedure

A thorough literature review was conducted to locate instruments to measure each of the eight factors identified in Phase One. Using pertinent keywords in several key databases, 107 measuring instruments were located. A spreadsheet was compiled which included the following information on each of the instruments: measure, author, type of administration, purpose of measure, administration time, number of items, normative group, the domain(s) it would be used to measure, a summary of the test reviews, price, and psychometric properties.

Phase Two Results

Once the spreadsheet was compiled, it was thoroughly reviewed in light of the following predetermined criteria: relatively easy to administer, can be administered by a case manager, applicable for community living, in public domain or inexpensive, can be self-scored, written at 6th grade (or lower) reading level, has demonstrated reliability and validity, has available normative data (preferably on persons with mental illness), received an acceptable critique, takes no longer than 30 minutes to administer, and measures one of the factors identified in Phase One. These criteria were selected because the goal was to select a protocol of instruments that, if proven to be good predictors, could be used by case managers at community mental health agencies for use in making housing placement decisions for persons with serious mental illnesses. Therefore, we wanted the instruments to be easy and quick to administer with low or no cost involved in obtaining and administering the instrument.

All measures that did not meet these predetermined criteria were eliminated from the list. The remaining instruments were then carefully reviewed and those most appropriate to the identified factors were selected for use in Phase Three. No appropriate measures were located for some of the factors (i.e., drug use, independent living skills, spirituality, and government assistance), therefore questions were constructed for those domains.

Phase Three Participants

The participants in this phase were 147 mental health service consumers living in a large Midwestern city who had been diagnosed with a serious mental illness. Participants were recruited through mental health agencies where they were receiving case management services. In order to be eligible for the study, participants had to have one of the following diagnoses: any schizophrenia spectrum disorder, bipolar disorder, major depression, psychotic disorder not otherwise specified, paranoid personality disorder, schizoid personality disorder, or schizotypal personality disorder. Twenty-two percent of the participants were living in a group home setting, 41 percent in a semi-independent living situation, and 37 percent were living independently in the community. The demographic information for the participants in Phase Three is summarized in Table 2.

Table 2. Demographic Information of Participants in Phase Three

	Group Home	Semi-Independent	Independent
Age (Mean/Range)	42/20-69	41/22-71	44/ 24-59
Sex			
-- Female	40.6%	37.3%	57.1%
-- Male	59.4%	62.7%	42.9%
Ethnicity			
-- Caucasian	56.3%	47.5%	62.5%
-- African American	37.5%	49.2%	32.1%
-- Biracial	3.1%	1.7%	1.8%
-- Other	3.1%	1.7%	3.6%
Diagnosis			
-- Schizophrenia	53.1%	44.1%	26.8%
-- Schizoaffective	12.5%	6.8%	14.3%
-- Bipolar	18.8%	25.4%	32.1%
-- Depression	15.6%	23.7%	26.8%

Phase Three Instruments

First, a questionnaire was used to assess general demographic information about each participant such as age, sex, and ethnicity. The demographic questionnaire also included questions about each participant's educational background, living arrangement, and diagnosis. Questions were written to assess domains for which no acceptable measuring instruments were located (i.e., drug use history, independent living skills, spirituality, and government assistance) and also included in the demographic questionnaire. The remaining instruments used in this phase were: the Behavior and Symptom Identification Scale (BASIS-32: Eisen, Dill, & Grob, 1994)--a 32-item mental health status measure that assesses self-reported difficulty in symptoms and functioning, the Community Living Skills Scale (CLSS: Smith & Ford, 1990) --a measure of adaptive community functioning, the Interpersonal Support Evaluation List (ISEL: Cohen, Mermelstein, Kamarck, & Hoberman, 1985)--used to assess the amount of social support participants felt in their lives, excluding staff members, the Multidimensional Scale of Perceived Social Support (MSPSS: Zimet, Dahlem, Zimet, & Farley, 1988)--a scale designed to measure perceived social support, the Mastery Scale (Pearlin, Menaghan, Lieberman, & Mullan, 1981)--a seven-item scale designed to measure self-efficacy respondents feel they have in their lives, and the Mental Health Confidence Scale (MHCS: Carpinello, Knight, Markowitz, & Pease, 2000)--a 16-item scale designed to measure self-efficacy among persons dealing with mental disorders. All instruments were coded so that higher scores would indicate more favorable outcomes (e.g., fewer symptoms, greater social support).

The final scale used in this study was constructed based on the information obtained from Phase One and was titled the Community Housing Adjustment Scale (CHAS). The 52 items generated by consumers as helpful in independent living were listed on this scale. Consumers were asked to rate each item on a four-point Likert scale ranging from "Hardly Ever" to "Almost Always" to indicate how frequently they participate in each activity (e.g., Do artistic things). Items that were not activities were listed separately and clients were asked to indicate "yes" or "no" to indicate whether the statement applied to them (e.g., Do you have a case manager?).

Phase Three Procedure

Flyers pertaining to the study were circulated at local community mental health agencies by the researcher and by employees at the various agencies. Interested participants contacted the researcher to schedule an appointment. After informed consent was obtained, participants were asked to sign an Authorization for the Release of Information from the mental health agency where they received case management services or treatment to obtain information regarding their diagnoses and treatment as well as an evaluation of their adjustment to their current housing situation and their current living skills.

The initial demographic questionnaire was administered followed by the other measures (see Instruments section above), which were administered in counterbalanced order with the researcher or research assistant recording all responses. A questionnaire was then given to each participant's case manager (or other knowledgeable staff) to obtain information regarding the client, including confirmation of diagnosis and living situation as well as a rating of the client's housing adjustment and current living skills.

Phase Three Results

The data were screened prior to being analyzed to ensure that all of the assumptions for discriminant function analysis were met. No univariate or multivariate outliers were found. Using the Statistical Package for the Social Sciences (SPSS, Inc., 1999), a one-way analysis of variance was conducted on housing adjustment to ensure that all three groups (group home, semi-independent, and independent) had similar levels of adjustment to their living situations (as determined by case manager ratings). The mean rating of living adjustment, on a 1 to 10 scale, was 7.58. Only 20 people were given adjustment scores below 6. Therefore, the majority of participants were well adjusted to their living situation according to their case managers. No significant difference between the groups was found, $F(2,144) = .177$, $p > .05$, partial $\eta^2 = .003$, therefore the remaining analyses included all participants. The subscales of each of the six instruments were found to be highly correlated with one another, therefore the mean scores on each of the six instruments were used as predictors rather than the individual subscales from each instrument. Because these analyses were exploratory in nature and multiple analyses were conducted, a Bonferroni adjustment was made to .01 to account for the following five analyses.

Because the goal of this study was to determine if the measures selected in Phase Two could predict optimal housing placement, a series of discriminant function analyses were conducted with various measures used as predictors. We were particularly interested in determining whether the battery of all ten tests selected in Phase Two could successfully discriminate between the three living groups (group home, semi-independent living, and independent living). We also evaluated the Community Housing Adjustment Scale to determine if it was comparable to using all ten instruments as predictors. Case manager ratings of living skills were also used in an analysis to determine their predictive ability. Another analysis combined the ten scales with case manager ratings of living skills to see if the prediction would be improved. A final analysis was conducted to find the most parsimonious set of predictors.

The first discriminant function analysis was used to predict group membership (group home, semi-independent, and independent) using ten predictors: total mean scores on the Behavior and Symptom Identification Scale (BASIS-32), the Community Living Skills Scale (CLSS), the Interpersonal Support Evaluation List (ISEL), the Mastery Scale, the Mental Health Confidence Scale (MHCS), the Multidimensional Scale of Perceived Social Support (MSPSS) as well as the questions pertaining to drug use, living skills, spirituality, and government assistance. All predictors were entered into the analysis simultaneously. The mean scores and standard deviations of each group on these ten measures (as well as

mean scores on the Community Housing Adjustment Scale and case manager ratings of living skills) are provided in Table 3. There were two discriminant functions, one of which was significant, $\chi^2(20) = 56.78$, $p < .001$, indicating that the three living groups could be discriminated using the ten predictors. This first discriminant function accounted for 72.9 percent of the between-group variability. The structure matrix between predictors and discriminant functions suggests that the CLSS is the best predictor for distinguishing between participants in the three living groups (see Table 4). The MHCS, government assistance items, and Mastery Scale were also found to contribute to the prediction, but not as much as CLSS. Loadings of less than .33 were not interpreted. Using these ten predictors, 59.2 percent of the original grouped cases were correctly classified (see Table 5).

Table 3. Means and Standard Deviations of Each Living Group on All Instruments[a]

	Group Home	Semi-Independent	Independent
Behavior and Symptom Identification Scale-32	3.20 (.62)	2.81 (.76)	2.99 (.65)
Community Living Skills Scale	3.45 (.36)	3.07 (.46)	3.19 (.31)
Interpersonal Support Evaluation List	17.34 (6.36)	14.98 (7.23)	18.11 (5.95)
Mastery Scale	3.57 (.71)	3.21 (.66)	3.21 (.65)
Mental Health Confidence Scale	4.77 (.91)	4.04 (1.06)	4.28 (.80)
Multidimensional Scale of Perceived Social Support	5.10 (1.32)	4.28 (1.63)	4.70 (1.20)
Addiction Items	2.47 (.62)	2.19 (.78)	2.45 (.60)
Independent Living Skills Items	5.28 (2.19)	6.02 (2.15)	5.93 (1.73)
Spirituality Items	2.91 (.96)	3.08 (.95)	3.20 (.90)
Government Assistance Items	1.81 (1.03)	2.19 (1.07)	2.70 (1.26)
Community Housing Adjustment Scale – Likert Items (1-38)	8.94 (.35)	8.90 (.53)	9.45 (.38)
Community Housing Adjustment Scale – T/F Items (39-52)	3.14 (1.59)	2.79 (1.84)	2.99 (1.99)
Case Manager Ratings of Living Skills	5.29 (2.45)	6.95 (1.92)	7.27 (2.07)

[a]Higher scores indicate more favorable outcomes.

Table 4. Structure Matrix – Ten Predictors

	Function	
	1[a]	2[b]
CLSS Total Score	-.577	.460
MHCS Total Score	-.457	.374
MASTERY Total Score	-.381	.049
LIVING SKILLS Items	.245	-.086
SPIRITUALITY Items	.185	.129
ISEL Total Score	-.064	.609
GOVT ASST Items	.417	.515
ADDICTION Items	-.142	.501
MSPSS Total Score	-.297	.409
BASIS-32 Total Score	-.301	.371

[a]χ^2 (20) = 56.78, $p < .001$
[b]Not significant

Table 5. Classification Results – Ten Predictors [a]

		Predicted Group Membership			
	Living Situation	Group Home	Semi-Independent	Independent	Total
Count	Group Home	19	6	7	32
	Semi-Independent	14	33	12	59
	Independent	7	14	35	56
%	Group Home	59.4	18.8	21.9	100
	Semi-Independent	23.7	55.9	20.3	100
	Independent	12.5	25.0	62.5	100

[a]59.2% of original grouped cases correctly classified.

A second discriminant function analysis included scores on the Community Housing Adjustment Scale. The average score on Likert scale items (in which participants indicated the frequency with which they engage in certain activities) was included as one predictor and the average score on the True/False items (in which participants indicated whether or not they were receiving certain services) was included as the second predictor. There were two discriminant functions and one was significant, χ^2 (4) = 15.86, $p < .01$, indicating that the three living groups could be predicted by their responses to the Community Housing Adjustment Scale. This discriminant function accounted for 82.7 percent of the variability between groups. The structure matrix between predictors and discriminant functions suggests that the score on Likert scale items (CHAS items 1 through 38) was a much better predictor for distinguishing between participants in the three living groups than the score on True/False items (CHAS items 39-52) (see Table 6). The Community Housing Adjustment Scale classified 47.6 percent of the original grouped cases correctly (see Table 7).

Table 6. Structure Matrix – Community Housing Adjustment Scale

	Function	
	1[a]	2[b]
Likert Items Score (1-38)	.989	.150
True/False Score (39-52)	.101	.995

[a]χ^2 (4) = 15.86, $p < .01$
[b]Not significant

Table 7. Classification Results – Community Housing Adjustment Scale [a]

		Predicted Group Membership			
	Living Situation	Group Home	Semi-Independent	Independent	Total
Count	Group Home	18	6	8	32
	Semi-Independent	21	31	8	60
	Independent	18	16	21	55
%	Group Home	56.3	18.8	25.0	100
	Semi-Independent	35.0	51.7	13.3	100
	Independent	32.7	29.1	38.2	100

[a]47.6% of original grouped cases correctly classified.

A third discriminant function analysis was conducted to determine if case manager ratings of current living skills (on a 10-point Likert scale ranging from poor skills to excellent skills) could predict current living situation. There were missing data from one case manager, so the total sample size for this analysis was 146 rather than 147. The one resulting discriminant function was significant, $\chi^2(2) = 17.80$, $p < .001$, indicating that case manager ratings of living skills were able to predict current living situation. Case manager ratings classified 43.8 percent of the original grouped cases correctly (see Table 8).

Table 8. Classification Results – Case Manager Ratings of Living Skills[a]

		Predicted Group Membership			
	Living Situation	Group Home	Semi-Independent	Independent	Total
Count	Group Home	19	6	6	31
	Semi-Independent	21	14	24	59
	Independent	19	5	30	54
%	Group Home	61.3	19.4	19.4	100
	Semi-Independent	35.6	23.7	40.7	100
	Independent	35.2	9.3	55.6	100

[a]43.8% of original grouped cases correctly classified.

At this point in the analyses, the six scales combined with the demographic items resulted in the best prediction (59.2%). These ten predictors were combined with case manager ratings of living skills to see if the prediction would be improved. One of the two discriminant functions was significant, $\chi^2(22) = 57.70$, $p < .001$ and 60.3 percent of the original cases were grouped correctly (see Tables 9 and 10). Therefore, adding case manager ratings of living skills as a predictor did improve predictive power. This discriminant function accounted for 73.7 percent of the between-group variability. Like the first discriminant function analysis reported above, the structure matrix between predictors and discriminant functions suggests that the CLSS is the best predictor for distinguishing between participants in the three living groups, followed by government assistance items, the MHCS, and Mastery Scale (see Table 9). Once again, loadings less than .33 were not interpreted.

Table 9. Structure Matrix – Ten Predictors and Case Manager Ratings of Living Skills

	Function	
	1 [a]	2 [b]
Case Mgr Rating of Living Skills	.541	-.013
MASTERY Total Score	-.291	.122
LIVING SKILLS Items	.209	-.146
SPIRITUALITY Items	.167	.095
ISEL Total Score	-.009	.655
CLSS Total Score	-.468	.614
MSPSS Total Score	-.256	.511
MHCS Total Score	-.343	.487
BASIS-32 Total Score	-.221	.453
GOVT ASST Items	.408	.448
ADDICTION Items	-.074	.270

[a]$\chi^2(22) = 57.70$, $p < .001$
[b]Not significant

Table 10. Classification Results – Ten Predictors and Case Manager Ratings of Living Skills[a]

		Predicted Group Membership			
	Living Situation	Group Home	Semi-Independent	Independent	Total
Count	Group Home	19	7	5	31
	Semi-Independent	14	33	12	59
	Independent	6	14	36	56
%	Group Home	61.3	22.6	16.1	100
	Semi-Independent	23.7	55.9	20.3	100
	Independent	10.7	25.0	64.3	100

[a]60.3% of original grouped cases correctly classified.

Based on the findings from the above analyses, one last analysis was conducted in an attempt to find the most parsimonious set of predictors with the greatest predictive power. This analysis included the scales and items which seemed to be most important (based on the results of the above analyses) in predicting current living situation: CLSS, MHCS, government assistance items, and case manager ratings of living skills. The Mastery Scale was left out because it is a measure of self-efficacy, like the MHCS. Since the MHCS loaded higher in the above analyses, it was used in lieu of the Mastery Scale. One of the two discriminant functions was significant, χ^2 (8) = 50.14, $p < .001$. This combination of predictors correctly classified 56.8 percent of the original grouped cases (see Tables 11 and 12) and accounted for 84.3 percent of between-group variability. All four measures loaded highly on the first function, indicating that they all made a considerable contribution to the prediction. It appears that the discriminant function analysis using all ten predictors in combination with case manager ratings of living skills proved to be best overall in discriminating among the three living groups.

Table 11. Structure Matrix – CLSS, MHCS, GOVT ASST, and CM Ratings of Living Skills

	Function	
	1[a]	2[b]
Case Mgr Rating of Living Skills	.624	.051
CLSS Total Score	-.555	.752
GOVT ASST Items	.458	.642
MHCS Total Score	-.408	.600

[a]χ^2 (8) = 50.14, $p < .001$
[b]Not significant

Table 12. Classification Results – CLSS, MHCS, GOVT ASST, and CM Ratings of Living Skills[a]

		Predicted Group Membership			
	Living Situation	Group Home	Semi-Independent	Independent	Total
Count	Group Home	22	3	6	31
	Semi-Independent	14	24	21	59
	Independent	10	9	37	56
%	Group Home	71.0	9.7	19.4	100
	Semi-Independent	23.7	40.7	35.6	100
	Independent	17.9	16.1	66.1	100

[a]56.8% of original grouped cases correctly classified.

Discussion

By interviewing consumers who had demonstrated success in independent living, eight domains were identified as important to independent living for persons with serious mental illnesses: social/leisure, taking personal responsibility, personal/self-care, psychological resources, being independent, self-efficacy/spirituality, skill-acquisition/support, and government assistance.

The results of this study provide support for the importance of these domains in predicting optimal housing placement. In fact, the instruments and items developed to measure these domains provided a better prediction of current living situation (59.2% correct classification) than case manager ratings of living skills alone (43.8% correct classification). Previous research has shown that mental health professionals have traditionally assumed that people with psychiatric disabilities need restrictive living (Minsky, Riesser, & Duffy, M., 1995) and housing decisions have typically been made for consumers by mental health professionals (Srebnik et al., 1995). The current study, however, shows that consumers' self-report of their status (on measures of community living skills, social support, symptoms, self-efficacy, government assistance, spirituality, and addiction) contributes substantially to the prediction of optimal housing placement and, in fact, is a better predictor than case manager ratings alone. Therefore, the results of this study lend support for greater consumer involvement in the housing placement process.

One interesting finding was that consumers who rated themselves highest on most measures in this study (e.g., excellent community living skills, high self-efficacy) were most often living in group homes whereas the consumers with lower scores tended to be living in semi-independent or independent living (see Table 3). It appears that impaired insight may be a primary factor accounting for this finding. Consumers who are low functioning, and therefore likely to be living in group homes, may not be fully aware of their adaptive living skills limitations and therefore rate themselves high on many of the measures used in this study. This is consistent with prior findings that schizophrenic patients living independently or with their families often have better insight than patients receiving residential supervision (Dickerson, Boronow, Ringel, & Parente, 1997).

Findings from the first discriminant function analysis show that community adaptive functioning (CLSS), self-efficacy (MHCS and Mastery Scale), and the presence of government assistance are the most important factors to take into consideration when determining appropriate housing placement for consumers and, specifically, that consumers' self-ratings of their functioning in each of these areas is essential information to guide the decision-making process. Unfortunately we were not able to examine the subscales as intended due to high subscale intercorrelations, but the overall scores suggest that each of the factors proposed is important. In evaluating consumer ratings, one must keep in mind that the self-ratings of lower functioning individuals will likely be high compared to higher-functioning individuals and thus housing decisions must be made accordingly. In other words, the persons scoring highest on these scales will most likely need group home or other supported living environments whereas those scoring lower will likely be suitable for more independent forms of living.

Since one of the goals of this study was to develop a battery that might be used by case managers in housing placement decisions, it is desirable to have a short, easily administered battery. Using all six scales and demographic items, in combination with case manager ratings of living skills, (which result in the best prediction, 60.3%) may not be practical. Therefore, a shorter battery, which includes the CLSS, MHCS, government assistance items, and case manager ratings of living skills, might be used. This combination of measures was able to classify correctly 56.8 percent of the cases, takes less than half the time to administer than the full battery, and consists of only 66 questions.

The Community Housing Adjustment Scale that was developed for this study was also shown to be an adequate predictor of current living situation (47.6%) and also better than case manager ratings alone (43.8%). However, the established measures used in this study would be better to use at this point because these instruments already have demonstrated acceptable psychometric properties. Additional research using the Community Housing Adjustment Scale is indicated.

It would be ideal to use the entire battery from this study, as it resulted in the best prediction of living situation when combined with case manager ratings of living situation. However, it should be noted that it was able to make the correct classification only 60.3 percent of the time. While this is a considerable increase over chance (33.3%) and over case manager ratings alone (43.8%), other factors must also be playing a role. Further research should explore other possible predictors that may improve the prediction.

Consumers living in appropriate housing environments show significant improvement in overall functioning and community adjustment outcomes (Baker & Douglas, 1990). Baker & Douglas (1990) found a significant relationship between residence appropriateness and changes in clients' Global Assessment Scale, even when service use had been controlled. Residence appropriateness was also found to be related to self-reported quality of life. Furthermore, the overall functioning of those living in appropriate housing improved over time as compared to deterioration in functioning among clients moving from appropriate to inappropriate housing. Therefore, efforts to improve housing placement to ensure that clients are appropriately placed are imperative. The results of the present study indicate that case manager ratings of client living skills, alone, are not adequate for making housing placement decisions.

The present study provides a good starting point by outlining the importance of consumers' self-reported community living skills, self-efficacy, and government assistance. Future studies should build on these findings by seeking to determine other domains or measures that may improve the prediction. When these three domains were combined with case manager ratings of living skills, 56.8 percent of cases were correctly classified. This provides evidence that case managers and consumers should work together to make joint decisions regarding housing. Future studies should also examine the role that insight plays in consumers' evaluation of their skills and supports. It is apparent that a measure of insight may be an important covariate to include in future studies of this nature.

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SELF-STIGMATIZATION AND RECOVERY FROM MENTAL ILLNESS

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Stigma is a complex phenomenon that includes extreme negative perceptions and social rejection of the stigmatized individual (Phelan, Link, Moore, & Stueve, 1997). Goffman (1963) defined stigma as a negative evaluation of an attribute that reduces an individual "in our mind from a whole and usual person to a tainted, discounted one" (page 3). Stigma isolates those stigmatized from the general public by connecting them to an undesirable trait (Jones, Farina, Hastorf, Miller, & Scott, 1984). People with mental illness are one of the most stigmatized groups in our society, and are consistently among the most devalued of all people with disabilities (Corrigan et al., 2000; Farina & Ring, 1965; Olmsted & Durham, 1976; Piner & Kahle, 1984; Socall & Holtgraves, 1992). The public has developed beliefs that people with mental illness are unpredictable and exhibit offensive and unusual characteristics, leading to the view of them as "the most abhorrent of social pariahs" (Farina, 1998, p. 249). The general public's perception of mental illness has significant implications for people who have a mental illness, as it increases the likelihood that they will be stereotyped and experience discrimination (Steinwachs et al., 1992). Negative effects of stigma include fewer employment opportunities (Link, 1982, 1987), lower self-esteem (Link, 1987), and discrimination in housing as well as difficulty obtaining health insurance (Alisky & Iczkowski, 1990; Steinwachs et al., 1992).

The detrimental effects of stigma are well documented, but its internalization, or self-stigmatization, has not received as much attention. Self-stigmatization refers to self-perception that is focused on stigmatized qualities rather than positive characteristics, and consequently, self-identification in terms of those negative qualities. This is sometimes seen among people with mental illness who begin to accept the aforementioned societal attitudes. The tendency to internalize the negative societal attitude about mental illness is strong because the stigma of mental illness "triggers powerful expectations of rejection that in turn erode confidence, disrupt social interactions, and impair social and occupational functioning" (Link, Struening, Rahav, Phelan, & Nuttbrock, 1997, p. 179).

Self-stigmatization likely interferes with the process of recovery from mental illness. Defined by Anthony (1993) as " a way of living a satisfying, hopeful, and contributing life even with limitations caused by the illness" (p. 13), the concept of recovery from mental illness has recently gained increasing prominence in community mental health treatment programs (Anthony, 2000). Self-stigmatization affects nearly every aspect of stigmatized individuals' lives and is likely to be a major contributor toward overall pessimistic attitudes about recovery from mental illness and therefore a major barrier in this process. This likelihood is supported by research suggesting strong perceptions of stigma are associated with low self-esteem (Wahl & Harman, 1989) and that high self-esteem is a key predictor for successful recovery from mental illness (Brown, Bifulco, & Andrews, 1990).

The reasons listed above illustrate the importance of understanding and researching the concept of self-stigmatization. However, the extent to which consumers of mental health services internalize the stigma of mental illness has not yet been empirically assessed. Further, an extensive literature review has revealed that a method of evaluating self-stigmatization among people with mental illness is not yet available. The relationship among self-stigmatization, attitude about the possibility of recovery from mental illness, and self-esteem are the focus of this study.

As a first step in this line of inquiry, the semantic differential technique (Osgood, Suci, & Tannenbaum, 1957) was selected to measure stigma and self-stigmatization. The semantic differential technique has been empirically validated and previously used to study topics related to the current study including evaluation of the concept of a mentally ill person (Kennard, 1974) and the effects of the acceptance of the label of mentally ill (Warner, Taylor, Powers, & Hyman, 1989). The semantic differential can be thought of as a "measurable feeling about a concept" (Emmerson & Neely, 1988, p. 266). The focus in developing a tool based on the semantic differential technique was on simplicity in an attempt to optimize ease and brevity of administration, as well as to create a measure that can be completed by mental health consumers who are at a variety of functioning levels.

Four hypotheses were tested in this study. The first hypothesis concerned the presence of stigma in our society. It was hypothesized that people in the general population would view a person with a serious mental illness more negatively than an average person on all dimensions of the Semantic Differential Stigma Scale. The second hypothesis was that mental health consumers have internalized the negative stigma about mental illness. It was expected that the ratings that the consumers gave themselves would not be significantly different than their ratings of a person with a serious mental illness, but would be significantly more negative than their ratings of an average person. A significant difference would provide evidence for the internalization of the stigma. Additional pre-planned comparisons of the ratings given by both groups would provide further support for the presence of self-stigmatization. The third and fourth hypotheses involved proposed correlates of self-stigmatization among mental health consumers. For the third hypothesis, it was predicted that that higher levels of self-stigmatization among mental health consumers would be associated with a lower self-esteem. Finally, it was hypothesized that higher levels of self-stigmatization would be associated with a more pessimistic attitude toward recovery from mental illness.

Scale Development

The semantic differential technique (Osgood et al,. 1957) involves rating concepts on a set of relevant bipolar adjective pairs that represent the dimensions of action, evaluation and potency. Those dimensions have been established by Osgood et al. (1957) as the primary way in which meaning may vary. A stigma dimension was added for the purposes of this study. Two preliminary phases were conducted to identify adjective pairs that were appropriate for this new stigma dimension. During the first phase, undergraduate students (n = 180) were given one of six protocols that described either a man or a woman with one of three illnesses (schizophrenia, manic depression or suicidal depression) and were asked to list between six and ten adjectives that they believed described that person. The words generated in that phase were then presented to a panel of mental health professionals and mental health consumers who rated each adjective on a five point scale with the anchors of "Not at all stigmatizing" (1) and "Highly stigmatizing" (5). This process led to the selection of adjectives for the stigma dimension of the scale and the remaining adjectives were selected from the original list created by Osgood et al. (1957) to represent the dimensions of action, evaluation and potency.

Participants

Data were collected from two groups: Mental Health Consumers in Hamilton County, Ohio and Evening College students at the University of Cincinnati. One hundred and thirty-one Evening College students participated, but the data from 13 individuals were dropped prior to data analysis because they either reported having a serious mental illness (n = 10) or had an incomplete protocol (n = 3). Participants' ages ranged from 18 to 52 (mean = 28.09, median = 24, SD = 8. 80). These participants were

used as representatives of the general public. The demographic characteristics of this sample are presented in Table 1.

One hundred seventy-six Mental Health Consumers volunteered for this study. Any consumer of public mental health services was eligible and these participants were recruited from local community mental health treatment centers. Data from 31 individuals in this group were excluded because they either did not complete all of the questionnaires (n = 24) or because the interviewer noted that the participant had significant difficulty understanding or answering the questions (n = 7). Therefore, data from 145 Mental Health Consumers were used in the final analysis. Participants' ages in this group ranged from 18 to 71 (mean = 41.66, median = 41, SD = 10.70). The demographic characteristics of this sample are also presented in Table 1. In addition, diagnoses were collected from chart records, and the sample included individuals with schizophrenia, schizoaffective disorder, bipolar disorder and major depression.

Table 1. Demographic Characteristics of Samples

	Mental Health Consumers		**Evening College Students**[a]	
	n	***percent***	***n***	***percent***
Sex				
Male	72	49.66	37	31.36
Female	73	50.34	80	67.80
Race				
White	91	62.76	87	73.73
African-American	44	30.34	25	21.19
Asian	1	0.69	2	1.69
Other	8	5.52	3	2.54
Level of Education				
Less than high school	43	29.66	0	0.00
High School	54	37.24	4	3.39
Some College	36	24.83	91	77.12
Bachelor's Degree	4	2.76	19	16.10
Graduate Degree	7	4.83	3	2.54

[a]One Evening College Student did not report any demographic information, so data for 118 participants is reported for that sample.

Instruments

The Semantic Differential Stigma Scale was used to assess both self-stigmatization among mental health consumers and the stigma about mental illness in the general population. This scale consisted of 24 bipolar adjective sets that were placed on a seven-point scale. Sixteen scales were chosen to represent Osgood et al.'s (1957) three factors: Action (four scales), Evaluation (seven scales) and Potency (five scales). In addition, eight scales were chosen for this study from the process described above and are included in the newly created stigma dimension of the scale (see Table 2 for adjectives and dimensions). Participants were asked to rate "a person with a serious mental illness", "an average person", and "yourself" on each of these 24 adjective sets.

Table 2. Dimensional Listing of Adjective Pairs from Semantic Differential Stigma Scale

Action	Evaluation	Potency	Stigma
Active-Passive	Beautiful-Ugly	Brave-Cowardly	Capable-Helpless
Fast-Slow	Good-Bad	Deep-Shallow	Clean-Dirty
Relaxed-Tense	Happy-Sad	Delicate-Rugged	Healthy-Diseased
Warm-Cold	Pleasant-Unpleasant	Masculine-Feminine	Hopeful-Hopeless
	Reputable-Disreputable	Strong-Weak	Moral-Sinful
	Successful-Unsuccessful		Peaceful-Violent
	Valuable-Worthless		Responsible-Irresponsible
			Smart-Stupid

The Recovery Attitudes Questionnaire (RAQ; Borkin et al., 2000) was used to assess attitude about the possibility of recovery from mental illness. Self-esteem was measured with the Rosenberg Self-Esteem Scale (SES**;** Rosenberg, 1965). Finally, a demographics questionnaire was used to obtain information on variables such as age, sex, race, and educational level.

Results

An Analysis of Variance (ANOVA) was conducted with pre-planned *t*-tests to assess the level of stigmatization and self-stigmatization among the participants in this study. Responses of each participant on the Semantic Differential Stigma Scale were averaged according to concept (a person with a serious mental illness, an average person, yourself) as well as dimension (action, evaluation, potency, stigma) for each concept because of the unequal number of scales representing each dimension. A complete table of means and standard deviations for all factors is listed below (see Table 3).

Table 3. Summary Table of Data by Dimension, Concept and Group

Dimension and Concept	Evening College Students		Mental Health Consumers	
	M	***SD***	***M***	***SD***
Action				
Average Person	3.701	0.651	3.309	1.079
Person with SMI	4.554	0.934	4.505	1.171
Yourself	2.930	0.831	3.417	1.230
Evaluation				
Average Person	3.334	0.714	2.931	1.079
Person with SMI	4.202	0.887	4.053	1.172
Yourself	2.416	0.836	2.979	1.234
Potency				
Average Person	3.808	0.477	3.446	0.863
Person with SMI	3.919	0.618	3.828	0.958
Yourself	3.226	0.581	3.321	0.993
Stigma				
Average Person	3.272	0.709	2.828	1.087
Person with SMI	4.292	0.892	3.946	1.288
Yourself	2.136	0.703	2.589	0.951
Overall				
Average Person	3.474	0.594	3.067	0.889
Person with SMI	4.232	0.746	4.046	0.993
Yourself	2.577	0.626	2.993	0.926

This one-between (group), two-within (dimension, concept) mixed ANOVA was performed as the primary analysis. Responses were not significantly different as a function of gender, so data were combined on that variable. The ANOVA revealed a main effect for dimension, F (3,783) = 112.313, $p < 0.001$, and for concept, F (2,522) = 263.959, $p < 0.001$, but not for group, F (1, 261) = 0.505, $p > 0.05$. This indicates that the responses of all participants on the three concepts (average person, person with a serious mental illness, yourself) significantly differed, as did responses on the items categorized by dimension (action, evaluation, potency, stigma). In addition, the three following interactions were significant: concept by group, F (2,522) = 26.145, $p < 0.001$, dimension by concept, F (6,1566) = 56.569, $p < 0.001$), and the three way interaction between dimension, concept and group, F (6, 1566) = 4.630, $p < 0.001$.

Pre-planned t-tests were conducted to test the specific hypotheses. The first hypothesis stated that Evening College students view people with a mental illness more negatively than they view the average person on all dimensions of the Semantic Differential Stigma Scale. Significant differences were found between the ratings of the average person and a person with a serious mental illness on the action, t (117) = -8.313, $p < 0.0001$, evaluation, t (117) = -9.389, $p < 0.0001$, and stigma, t (117) = -10.873, $p < 0.0001$ dimensions, but not on the potency dimension, t (117) = -1.624, $p > 0.05$, with more negative ratings being given to the person with a serious mental illness. Therefore, Evening College students rated the average person significantly more positively than they rated the person with a mental illness on all dimensions of the Semantic Differential Stigma Scale except potency. Evening College students also rated themselves significantly more favorably than the average person, t (117) = 15.596, $p < 0.0001$ and a person with a serious mental illness, t (117) = 18.979, $p < 0.0001$, and they rated the average person significantly more favorably than a person with a serious mental illness, t (117) = 9.526, $p < 0.0001$.

The second hypothesis stated that Mental Health Consumers have internalized the negative stigma about mental illness. Pre-planned pairwise comparisons revealed that Mental Health Consumers' ratings of themselves and the average person were not significantly different, t (144) = -.849, $p > 0.05$, but ratings of themselves were significantly more favorable than their ratings of a person with a serious mental illness, t (144) = 12.587, $p < 0.0001$. Furthermore, Mental Health Consumers rated the average person significantly better than they rated a person with a serious mental illness, t (144) = 11.664, $p < 0.0001$.

Additional comparisons provide more information about self-stigmatization. First, the groups did not significantly differ on their ratings of a person with a serious mental illness, t (261) = 1.686, $p > 0.05$. In addition, the ratings that Mental Health Consumers gave themselves were significantly more negative than the Evening College students ratings of themselves, t (261) = -4.170, $p < 0.001$, but Evening College students rated the average person significantly more negatively than the Mental Health Consumers, t (261) = -4.253, $p < 0.001$.

The third hypothesis stated that high levels of self-stigmatization would be associated with low self-esteem. Since self-stigmatization was not found as it was defined a priori, this hypothesis was tested by correlating ratings that people gave themselves on the Semantic Differential Stigma Scale with their responses on the Rosenberg Self-Esteem Scale. Moderately strong correlations were found in both samples, with the association among Mental Health Consumers, r = -0.650, $p < 0.0001$ slightly stronger than that among the Evening College students, r = -0.627, $p < 0.0001$. These correlations indicate that as ratings increase (become more negative) on the SDSS, they decrease on the SES (become more negative). It was also found that the global self-esteem of the Evening College students was significantly higher than that of the Mental Health Consumers, t (261) = 11.190, $p < 0.0001$.

The final hypothesis predicted that a high rate of self-stigmatization among Mental Health Consumers would be associated with a pessimistic attitude toward recovery from mental illness, as measured by the Recovery Attitudes Questionnaire (RAQ). For this analysis, ratings that the Mental Health Consumers gave themselves on the SDSS were very weakly correlated with their scores on the RAQ, $r = -0.175$, $p < 0.05$.

Discussion

This study examined stigma and self-stigmatization and its relationship with self-esteem and attitudes toward recovery from mental illness. It was hypothesized that the stigma of mental illness would be present among Evening College students and Mental Health Consumers. It was expected that the latter would have internalized this stigma, which would be associated with decreased self-esteem and a more negative attitude about recovery from mental illness. While the main analysis supported the presence of a stigma of mental illness among both groups, self-stigmatization was not present as it was a priori defined. However, careful examination of the results suggests that self-stigmatization is present, but in a different fashion than was expected. Although the Mental Health Consumers did not rate themselves similar to a person with a serious mental illness, they did devalue themselves relative to the Evening College Students. Whereas the Evening College students rated themselves significantly better than the average person and a person with a serious mental illness, the Mental Health Consumers rated themselves similar to the average person. This finding among people with mental illness is inconsistent with past research that has shown that individuals tend to inflate their views of themselves to the point that they consider themselves to be better than others (Alicke, 1985). Therefore, this finding may represent a detrimental consequence of stigma that diminishes the base level of self-worth among people with serious mental illness from superior to the average person (as seen among the Evening College Student) to similar to the average person. Further evidence of self-devaluation is indicated by the finding that the Mental Health Consumers rated themselves significantly more negatively than the Evening College students rated themselves.

The third hypothesis predicted that a high level of self-stigmatization would be associated with low self-esteem. Since self-stigmatization as it was defined a priori was not found in this study, the analysis for this section was slightly altered. Ratings that the consumers and students gave themselves were correlated with their ratings on the Rosenberg Self-Esteem scale, which is a measure of global self-esteem. For both samples, a moderately strong correlation was found. Analyses also revealed that the Mental Health Consumers' self-esteem was significantly lower than that of the Evening College students on this measure.

The fourth and final hypothesis in this study was not supported. It proposed that individuals who self-stigmatize would have a more negative attitude toward the prospect of recovery from mental illness. Ratings that the Mental Health Consumers gave themselves were correlated with the RAQ, but a very weak correlation emerged. This area deserves further exploration in the future.

These results are very important to the mental health community. It provides a preliminary glance into the presence of self-stigmatization among Mental Health Consumers and the findings suggest that consumers are devaluing themselves. As the first attempt to empirically study self-stigmatization, these results provide information that can be used to clarify the definition of self-stigmatization as it relates to this population. Furthermore, these results should be used as a basis for further exploration of the impact of self-stigmatization, including broadening the scope of the study to assess areas that may be affected by this phenomenon (e.g., social relationships, working opportunities, etc.) and considering the relationship between level of self-stigmatization and specific illnesses. Ultimately it is hoped that a better

understanding of self-stigmatization will lead to specific interventions that will improve the lives of people with mental illness.

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Presentations of the Research to Date

Farrell, K. M., Steffen, J. J., Borkin, J. (2001, August). *Self-stigmatization, self-esteem and recovery from mental illness.* Poster session presented at the Annual Meeting of the American Psychological Association, San Francisco, CA.

Farrell, K. M., Steffen, J. J., & Borkin, J. (2000, June). *Self-stigmatization and recovery from mental illness.* Poster session presented at the Ohio Department of Mental Health Millennium Conference 2000, Columbus, OH.

IMPACT OF "A TIME OF HOPE", THE HAMILTON COUNTY MENTAL HEALTH RECOVERY SYSTEM DEVELOPMENT GRANT

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The idea of recovery from serious mental illness is an emerging concept in mental health that contrasts with the traditional belief that mental illness is both intractable and beyond the control of the individual who has the illness. Although the term 'recovery' has been widely used in the substance abuse literature, its meaning is somewhat different when applied to serious mental illnesses. In this context, recovery has been described as the process of an individual finding new meaning in life despite the presence of a mental illness and its consequences (Anthony, 1993). Recovery also implies that an illness, while it may not be cured, can be overcome to the extent that the person who has the illness can lead as fulfilling a life as is possible. Both consumers of mental health services and mental health professionals have described pathways to recovery (Anthony, 1993; Chamberlin, 1978; Deegan. 1988; Freese & Davis, 1997) and agree that the process of recovery, while highly personal and individualized, requires fundamental changes in the style and structure of mental health care delivery systems. There is a growing literature on the journey to recovery despite its novelty, and many of these reflections and experiences are beginning to be examined empirically (Borkin et al., 2000; Ensfield, 1998; Hamilton County Recovery Initiative Research Team, 1999; Young & Ensing, 1999). This research demonstrates the individualistic and personal nature of recovery as well as underscoring its importance in the lives of those affected by serious mental illnesses.

This current project, with its emphasis on assessing the impact of instituting recovery principles on a mental health systemwide basis, is focused on furthering our knowledge of how to promote recovery. Consumers of mental health services can strive for recovery, and do so in ways that are personally meaningful, but they cannot accomplish much without the support of the providers of care upon whom they depend. What is needed is an understanding not just of the recovery process but also of the ways in which the mental health system can promote that recovery. While the recovery process is just beginning to be understood, substantial effort has already been directed toward mapping out its dimensions and domains for an individual within the mental health system (Anthony, 2000; Ralph et al., 1999; Townsend, Boyd, Griffin, & Hicks, 2000). What is needed now, as well as further knowledge about the individual's recovery and the factors that promote it, is a determination of what can be done to incorporate the recovery model within mental health systems. If one thinks of recovery research as being in its first generation, then research on the systemic incorporation of recovery models represents the next generation of research: looking at what can be done to disseminate the concept of recovery as well as its emerging operational principles in ways that impact the entire mental health care delivery system and all of its constituents. In entering upon this next generation of research, we are exploring how structural and functional changes can impact the recovery of individuals receiving services within the Hamilton County mental health system. Second, we are studying how such changes impact family members, service providers, and mental health system administrators and policy makers. Third, we hope to identify methods of system-wide recovery promotion that can be generalized to other mental health systems.

For this current project, individuals within the system as well as the system itself are the focus of the research efforts. In our previous work (Hamilton County Recovery Initiative Research Team, 1999), we adopted a participatory action model of research (PAR) that fit perfectly within the rubric of recovery

because of its emphasis upon empowerment and participation in the research process for the "objects" of research scrutiny (Krzton et al., 1998). This same approach is being taken in this project with an added emphasis on involving all mental health system stakeholders (providers and administrators as well as consumers and family members) as active participants in the research process. Since PAR involves actively involving stakeholders in every stage of research and program evaluation activity, substantial effort is being made throughout the project to develop research and evaluation protocols that make sense to the stakeholders and that provide findings of direct use to them.

Unlike those who use more traditional laboratory based research approaches, we anticipate making changes and adjustments in research and evaluation plans as they are put into effect. However, we will also maintain a degree of objectivity and stability to the data collection process such that our findings are as internally and externally valid as is possible with such "real-world" research. As we study recovery in this project, we need to take into consideration the views and perspectives of stakeholders in the recovery promotion process such that research designs and research questions will need to be modified to accommodate those changes.

In this project, we are studying the intervention strategies planned and implemented by the Hamilton County Mental Health Recovery System Development Grant (RSDG). In so doing there are four major emphases. First, associated with the planning phase of the RSDG, qualitative research methods and system performance measurements are being used to document the activities and products of this phase. This is being done to facilitate dissemination of project operations as well as provide evidence for the involvement of stakeholders in the planning process. It is one premise of the RSDG that system wide recovery promotion requires the participation of all mental health system stakeholders. The qualitative evaluation methods used will evince those efforts.

Second, all focused and targeted interventions (i.e., training in recovery best practices) will be assessed. Programmatic training and other forms of intervention are being monitored with regard to their quality and usefulness (e.g., training evaluation ratings) and impact (e.g., changes in provider behavior and attitudes). The effects of systemwide training are also being assessed with regard to its impact on consumer specific outcomes. If recovery best practices permeate the system, then the training should be viewed as being of quality and utility and it should manifest itself in changes in how providers work with consumers and the recovery focused resources within the mental health system.

Third, a "bellwether" group of randomly selected consumers throughout the system is being recruited and engaged in repeated assessments over the course of this three year project to provide baseline data and a comparison group for outcome research. These consumers are being assessed on recovery related and other psychosocial variables. These data will help us conduct somewhat more powerful tests of intervention effectiveness than could be obtained from other types of quasi-experimental designs such as pre-test, post-test only designs and the use of convenience sampling to obtain comparison and control groups.

Fourth, all providers in the mental health system will be administered the RAQ (Borkin et al., 2000), a measure of favorable attitudes toward recovery, at the start of the project and at its end. This will provide a general index of the penetration of recovery favorable concepts among system providers. The pre-test of the RAQ can also be used as a diagnostic measure indicating recovery concepts that can be the focus of training efforts.

Methodology

The demonstration project has two distinct phases, a planning period and two years of intervention resulting from the planning. The research team is working closely, using the PAR approach, with program staff, consumers, and family members in the planning phase to assure that all measures and protocols are developed consistent with the project's activities and are appropriate and meaningful for their respondents. We are also working with program staff to select key hypotheses and experimental questions that will be tested through the course of the project. The complexity of this project dictates that a certain degree of selectivity must be exercised in the research. Prioritization of data collection and research activities occurred in the planning phase. Based upon our past experience, we also anticipate that changes to measures and protocols will have to be made during the implementation phase but these will, hopefully, not be too substantial.

Bellwether Group. We have included a group of 150 research participants drawn randomly from all eligible consumers within the Hamilton County Community Mental Health Board area who are completing a battery of selected recovery-based and psychosocial measures with repeated administrations semi-annually for the three years of the project. Randomly selected consumers were approached for consent to be recruited into the study by their case managers or primary therapists. When consent to be recruited is granted, a member of the research team explains the nature of the data collection process, assures anonymity, obtains a signed informed consent, and administers the assessment protocol. Consumers are compensated $10.00 an hour for their participation. Participants will be re-evaluated at six-month intervals throughout the course of the project. These individuals will serve as a bellwether group that will allow us to compare changes in participating consumers with those who are not part of the intervention or are not affected by the intervention in a timely fashion. They can also function as a comparison group for several tests of the effectiveness of the system wide interventions.

Independent Variables. As designed, there are no formal, manipulated independent variables in this project. The real-world nature of the consumer, family member, and clinical staff participant samples and the interventions that will be developed and implemented make random assignment and the use of "no treatment" control groups logistically difficult.

Qualitative Analyses during Planning Phase. All activities of the planning phase are monitored and evaluated using qualitative methods. For these situations we are using a general four-step strategy of, 1) interviewing key informants and stakeholders engaged in major activities about the nature and desired outcomes for each task, 2) using these interviews in consultation with stakeholders to generate checklists of actions and outcomes, 3) having participants and, when possible, independent evaluators complete these checklists, and 4) enlisting participants in a general discussion and evaluation of activities once completed. This same method will be followed for relevant goals, outcomes, and activities of the intervention phase that do not lend themselves to the use of previously developed or customized measuring instruments.

Instruments. All consumers consenting to participate in the "bellwether" assessments initiated during the planning phase are being administered the Ohio Mental Health Outcomes Survey: Adult Consumer Form A (Ohio Department of Mental Health, 2000). This instrument actually contains several component instruments that measure symptom distress, empowerment, quality of life, physical health, and medication concerns. Consumer participants are also being administered the Recovery Attitudes Questionnaire (RAQ; Borkin et al., 2000) and the Personal Visions of Recovery Questionnaire (PVRQ; Ensfield, 1998). The RAQ is a measure of attitudes favorable to the concept of recovery and the PVRQ measures the variety of ways in which consumers can accomplish their own recovery. The latter two

measures, developed and evaluated by members of the present research team, have been found to have acceptable psychometric properties and each has component sub-scales that will permit a more fine-grained analysis of changes in recovery attitudes and activities. The providers of participating consumers are being asked to complete the Provider Adult Form A which is a companion to the Adult Consumer Form A. This is an adaptation of the Multnomah Community Ability Scale (Barker, Barron, McFarland, & Bigelow, 1994) that is a measure of the target consumer's level of adaptive community functioning. Three other items in this measure assess the consumer's involvement in the criminal justice system, physical harm directed at others, and personal victimization.

All other consumers in the mental health system will also be asked to complete the Ohio Outcomes System instruments in a rollout fashion during the course of this project. Consumer outcomes data will be available through the assessment for approximately half of the consumers in the second intervention year of the project.

The RAQ is being used as a pre-post-test measure for the training interventions given to the consumers, family members, and clinical staff during the intervention phase of the project. The PVRQ is being given to all consumers who were not members of the previously selected comparison group tested during the planning phase. Training on specific instruments is being given to all consumer, family member, and clinical staff participants who receive training interventions.

There are also some system wide performance measures that we expect will be impacted by the proposed interventions. First, we anticipate that the number of referrals to consumer-operated services will increase as the result of this project. Second, we expect that the amount of time consumers spend at consumer-operated services will increase. Third, we expect that the total number of consumers served in consumer or peer operated services will increase as well.

Preliminary Findings

At this point, analyses of data collected for the assorted efforts of this project are in progress. The status of each study emphasis will now be reviewed.

1. Planning phase assessment. Materials generated during the planning phase (e.g., meeting minutes and attendance sheets, memos, position papers) have been collected and cataloged. Analysis and distillation of these materials is in progress. A qualitatively based narrative report of the planning process will be the product of this evaluation.

2. Intervention assessment. The RSDG staff held its first recovery best practices training session in October 2000 for 19 clinical supervisors and program directors. Thirteen attendees completed a follow-up evaluation conducted six months after training. Several questions regarding the training and its usefulness were asked. Among the findings, eight of the 13 respondents reported that the training was too complex and cumbersome to implement, however nine of them reported using the recovery best practices training in their day-to-day work. Similar evaluations are planned for immediately past and forthcoming training sessions. A complete report is available from the authors on request.

3. Bellwether group. Data collection is in progress. Findings from the first wave of instrument administration will be available in January 2002.

4. Provider recovery attitudes. The RAQ was distributed to 891 providers in Hamilton County in October 2000 and 352 (43%) returned usable data. Findings indicate relatively favorable attitudes toward

recovery concepts although several areas for attitudinal improvement were identified. This instrument will be re-administered at the completion of the project in 2003. A complete report on the first wave of administration is available from the authors on request.

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RELIGIOUS COPING STYLES AND RECOVERY FROM SERIOUS MENTAL ILLNESS

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The last decade has been marked within the mental health field by the emergence of the concept of recovery, which stands in contrast to the traditional view that severe mental illnesses are chronic and intractable. An integral part of recovery is empowerment, which involves consumers of mental health services taking responsibility and control over all aspects of their lives, including the treatment for their disorders (Corrigan, Faber, Rashid, & Leary, 1999). Additionally, activities, places, and people not related to the mental health system, such as lay social support networks, sports, clubs, and religious institutions, are seen as essential to many individuals' recovery (Anthony, 1993; Corrigan et al., 1999; Murnen & Smolak, 1994). Indeed, spiritual and religious involvement is viewed by many as playing an important role in promoting and supporting recovery efforts (Young & Ensing, 1999).

For decades, however, religiosity has been seen by many in the mental health professions more as a symptom of and contributor to psychopathology than as a positive source of emotional support. Freud (1927) appears to have set the stage with the view that religious faith is a defense against anxiety. This idea has also been endorsed by several contemporary theorists (e.g., Ellis, 1980). Consequently, the development of spirituality in individuals' lives as well as the connections between their religious beliefs and positive emotional adjustment have, at best, been ignored by mental health professionals. At worst, a reliance on religious faith has been pathologized and discouraged (Koenig, Larson, & Weaver, 1988).

Religion, until recently, has been largely ignored as a major variable in social science investigations. Even more neglected has been the study of the effects of religious beliefs and practices on the functioning of people who have serious mental illnesses (Crossley, 1995; Koenig, Larson, & Weaver, 1998). On the other hand, most personal accounts of recovery highlight spirituality. Religion and spirituality are seen as offering great help by providing coping and problem-solving strategies, a source of social support network, and a sense of meaning in the midst of tragedy and confusion (Sullivan, 1999). Unfortunately, most of the current work on this matter is qualitative in nature and limited in scope.

The intersection of religion and coping has recently been identified as a rich area for scientific investigation (Pargament, 1997). One's method of religious coping has been found to relate to a number of psychosocial outcomes, such as the degree of adjustment to negative events and psychological resourcefulness. Pargament, Kennell, et al. (1988) identified three major approaches to religious coping with adversity: self-directing, deferring, and collaborative. The collaborative style reflects the joint responsibility for problem solving by God and the individual, while the deferring style implies placing all responsibility for problem solving on God while passively waiting to receive solutions. The self-directing approach emphasizes the individual's personal responsibility and active role in problem solving and excludes God from the process (Hathaway & Pargament, 1990).

Both self-directing and collaborative problem-solving styles have been linked to greater general psychological competence, while the deferring religious coping method has been related to lower levels of psychological resourcefulness (Hathaway & Pargament, 1990). However, in several studies the self-directing approach has also been associated with negative outcomes, such as anxiety and depression

(Bickel et al., 1998; Schaefer & Gorsuch, 1991). Although generally not an effective problem-solving method, the deferring coping style has been found helpful in those situations where the individual has very little control over the stressful circumstances (Pargament, 1997). In these uncontrollable situations, delegating responsibility to what many view as a mighty and loving Being can be quite empowering, whereas assuming all responsibility for problem-solving may lead to great distress. Thus, a consistent pattern of positive outcomes emerges only for the collaborative coping style, while the other two styles yield mixed implications (Pargament, Koenig, & Perez, 2000; Park & Cohen, 1993; Thompson & Vardaman, 1997).

Pargament and his colleagues (1990) also postulated the existence of an additional religious coping style, termed Plead, in which the individual petitions for God's miraculous intervention to bring about personally desirable outcomes, both refusing to accept the status quo and wishing for the world to change through God. In several studies, the use of pleading and bargaining for a miracle has been linked to greater distress and is generally considered a maladaptive religious style of coping (Pargament, Koenig, & Perez, 2000; Park & Cohen, 1993; Thompson & Vardaman, 1997).

Goals and Hypotheses

The major purpose of this project was to ascertain empirically the role of religion and religious coping in the process of recovery from serious mental illness. A more specific goal of this study was to increase our understanding of which religious methods of coping, if any, facilitate the recovery process most effectively. It was assumed that if certain approaches to religious problem-solving are indeed more efficacious in promoting individuals' psychosocial functioning, sense of empowerment, and recovery, mental health professionals and clergy working with these individuals would be in a better position to encourage the development and reliance upon these particular coping styles.

Four hypotheses were tested in this study.

Hypothesis 1: Higher scores on religious salience and attendance at religious services were expected to be linked to a better quality of life and fewer symptoms of distress.

Hypothesis 2: Higher levels of religious salience and more frequent participation in religious services were predicted to be associated with fewer units of service utilization by virtue of the strong social support network that more religious consumers possess, which would provide a buffering effect on their well-being and functioning.

Hypothesis 3: Mental health consumers' reliance on Self-directing and Collaborative religious problem-solving styles was predicted to be associated with a greater sense of personal empowerment and use of such active elements of recovery as advocacy, outreach, and overcoming obstacles to recovery. By contrast, Collaborative and Deferring coping styles were hypothesized to be associated with support- and help-seeking as well as the affirmational aspects of the recovery process. Dependence on Deferring and Pleading religious coping styles was expected to be associated with a lower sense of empowerment and a more passive stance in dealing with mental health service providers through exclusive reliance on professional assistance.

Because recovery from serious mental illnesses is a complex and multidimensional process, some of its elements are within individuals' control and thus demand a fair degree of personal responsibility and action, while others are unchangeable and, to a large extent, simply require acceptance. Hypothesis 4: Use of the Collaborative religious problem-solving style was predicted to be associated with a better

ability to deal with the complexities of the recovery process as defined by improved quality of life and reduced symptom distress, than reliance primarily on Deferring, Pleading, and Self-directing styles. Individuals in the three latter categories were viewed as being more likely to focus on some aspects of recovery (i.e, outside their control) to the exclusion of others and thus would experience more frustrations and a decreased quality of life in the process.

In addition to these hypotheses, another goal of this study was to ascertain the factor structure of the Religious Problem-Solving Scale (RPSS; Pargament et al., 1988) in a sample of individuals who have serious mental illnesses. Moreover, given the previously demonstrated utility of examining one's pattern of religious coping, a cluster analysis on participants' styles of religious coping was planned.

Participants

One hundred seventy-eight individuals who have serious mental illnesses receiving services in the public sector mental health system were recruited into the study. Data from 27 participants (15.2% of the total sample) were excluded because they did not meet minimum criteria for inclusion based on their score on a screening instrument, or they gave duplicate, incomplete, or unusable responses. The final sample consisted of 151 individuals.

Fifty-one percent of the sample consisted of females, and 34 percent represented ethnic minority groups. Mean age was 41.6 years (18-71 range). The majority of participants were single (69%) and unemployed (69%). Forty-six percent described themselves as Protestant, 22 percent as Catholic, three percent as Jewish, nine percent as other, and 20 percent reported no religious preference.

Instruments

Mini-Mental State Examination (MMSE; Folstein, Folstein, & McHugh, 1975) is a brief cognitive screening instrument that measures attention, learning/memory, language, and visuo-constructive abilities. The MMSE was used to screen potential participants for their ability to process information at hand and respond in a meaningful manner.

A demographic questionnaire was used to assess participants' age, sex, race, educational background, diagnosis, marital and employment status, and religious affiliation. All respondents were asked if they believe in God or a similar Higher Power. The possible response alternatives included Yes, No, and Unsure.

General religious questions. Religious salience or the importance of religion to the individual was assessed by three four-point items developed by Roof (1978). Respondents were asked to report the extent to which they base important decisions in life on religious faith; perceive faith to be important to their lives; and find that faith provides them with meaning. Answers were coded on a range from 1 (seldom, not at all important, and strongly disagree, respectively) to 4 (always, extremely important, and strongly agree, respectively). The frequency of participants' religious service attendance was measured by means of one item, ranging from 1 (never) to 5 (two or more times a week).

Religious delusions. Several questions were added to the study protocol to explore potential effects of the presence of religiously delusional thinking on participants' responses. Because no standardized measure of religious delusions was available, ad hoc questions that seemed to capture the most obvious examples of religiously delusional thinking were developed.

The short form of the Religious Problem-Solving Scale (RPSS; Pargament et al., 1988), consisting of 23 items, was used in the study. This instrument includes four correlated subscales, Collaborative (C), Self-directing (S), Deferring (D), and Plead (P). Participants were asked to report the frequency with which each statement applies to their recovery from mental illness on a 5-point scale ranging from 1 (Never) to 5 (Always).

Personal Vision of Recovery Questionnaire (PVRQ; Ensfield, 1998) is a 24-item instrument measuring the beliefs of individuals who have serious mental illnesses about what they can do to promote their own recovery. Responses are measured on a 5-point Likert-type scale ranging from 1 (Strongly disagree) to 5 (Strongly agree). Five factors underlying the multidimensional structure of recovery beliefs are the following: Recovery Through Support (alpha = .70), Recovery Through Personal Challenges (alpha = .65), Recovery Through Professional Assistance (alpha = .63), Recovery Through Action and Help-Seeking (alpha = .61), and Recovery Through Affirmation (alpha = .57). Low to moderate correlations have been found between the subscales of PVRQ and measures of community functioning, quality of life, adequacy of social support, and mastery.

The Ohio Mental Health Outcomes Survey Adult Consumer Form A (ODMH, 1996-1997) was used to measure participants' level of global functioning (quality of life and symptom distress) and sense of empowerment.

Service utilization. Utilization data, reported as the number of units (roughly the number of hours) of service, were obtained from the local Community Mental Health Board for 86 study participants. All the units of service utilization were aggregated for each participant for a 12-month period prior to the time of assessment to form one variable.

Procedure

Participants were sought from three major case management agencies in Hamilton County, Ohio. The principal investigators and four research assistants solicited individuals' participation in the study by approaching them, in person, at the agencies and explaining to them the nature of the study. Participants were tested individually and a standard research protocol was followed. The Mini-Mental State Exam was administered to ensure participants' ability to complete the interview process. Those individuals who scored below the cutoff point on the MMSE received $5 and were excluded from the rest of the interview. All other individuals who scored above the cutoff point on MMSE were asked to proceed with the interview. The questionnaires, in counterbalanced order, were read aloud to the participants. Upon completion of the study, the respondents were asked to provide a written release of information for diagnostic and service use data. The participants were compensated with $20 for their time and effort if they fully completed the questionnaires.

Descriptive statistics

Ninety-five percent of the sample reported belief in God/Higher Power, two percent denied it and 2.6 percent stated that they were unsure. Thirty-four percent of the sample (n = 52) endorsed at least one religious delusion in the past, and 17.2 percent (n = 26) agreed with at least one question on current religious delusions. Twenty-three of 26 (88%) participants who acknowledged current delusions also reported having experienced them in the past.

Internal consistency and correlational analyses

Internal consistency coefficients for all but one (Self-esteem/self-efficacy) subscale of the Empowerment Scale and all dimensions of PVRQ were unsatisfactory. Consequently, in all subsequent analyses, only the total indices for Empowerment and PVRQ were used. By contrast, Cronbach alpha levels for RPSS subscales, Symptom Distress, Quality of Life, and religious salience indices ranged from acceptable to high.

The strength and directionality of correlations does not lend support to Hypothesis 1, which predicted positive associations between religious salience/religious attendance and quality of life and negative relations between religious salience/religious attendance and symptom distress. While the association between religious salience and quality of life approached significance (Spearman $r = .15$, $p = .07$), importance of religion was not related to level of symptom distress. Neither was frequency of religious attendance associated with participants' level of functioning. Hypothesis 2, which predicted a negative association between the amount of service use and the degree of religious salience or service attendance, was not supported.

However, significant positive associations emerged between the two religious variables and involvement in recovery-related activities, as well as between religious salience and empowerment. Additionally, as expected, use of various recovery strategies was positively related to one's level of empowerment, which in turn was positively associated with quality of life and negatively with level of symptomatology.

Factor and cluster analyses on RPSS

Principal components factor analysis followed by an oblique rotation was used to ascertain that the original factor structure of RPSS replicated in the population of people who have severe mental illnesses. Twenty-two out of the original 23 items with loadings of .50 or higher, were retained. Three correlated factors emerged, with the first one including Collaborative and Deferring items; the second consisting of Self-directing items, and the third representing Plead items.

Previous research demonstrated that most individuals rely on more than one method of religious coping and that examining one's pattern of religious problem-solving has utility (e.g., Bickel et al., 1998; Sears, Rodrigue, Greene, Fauerbach, & Mills, 1997). Thus, Ward's minimum variance method was used to perform three-, four-, five-, and six-solution cluster analyses, to determine the religious coping profiles of participants in this study. The three-cluster solution (Collaborative/Deferring/Plead [$n = 47$], Self-directing [$n = 42$], and Eclectic [$n = 58$] provided the most parsimonious profiles. The first cluster included participants who scored high on Collaborative/Deferring and Plead but low on Self-directing coping styles. The second one consisted of individuals who scored high only on the Self-directing problem-solving style and low both on Collaborative/Deferring and Plead. Finally, the third cluster represented persons whose responses fell in the average range on all three religious coping styles.

Multiple regression analyses

A series of stepwise multiple regression analyses, with the three RPSS factors, religious attendance and salience, and the demographic variables of sex, race, and age as predictors and quality of life, symptom distress, level of empowerment, and recovery as criterion variables, were performed. In partial support of Hypothesis 3, the RPSS Collaborative/Deferring factor ($\beta = .26$, $p < .01$), higher religious attendance ($\beta = .18$, $p < .05$), and being female ($\beta = .17$, $p < .05$) accounted for 16 percent of the

variance in total PVRQ scores (R^2 adjusted = .16; F (4, 141) = 7.9, $p < .001$). However, contrary to Hypothesis 3, reliance neither on the Collaborative nor the Self-Directing religious coping style predicted higher levels of empowerment. Instead, greater religious salience ($\beta = .33$, $p < .001$) and younger age ($\beta = -.26$, $p < .01$) entered the prediction equation with total empowerment as the criterion, accounting for 15 percent of the variance (R^2 adjusted = .15; F (3, 142) = 9.5, $p < .001$).

Consistent with Hypothesis 4, use of the Collaborative/Deferring problem-solving style significantly predicted participants' quality of life, explaining five percent of the variance ($\beta = .22$, $p < .01$). The overall equation was significant (R^2 adjusted = .05; F (2, 143) = 5.0, $p < .01$). Again, as expected, reliance on the religious coping style of Plead ($\beta = .24$, $p < .01$) accounted for six percent of the variance in symptom distress.

Discussion

In this sample, the percentage of participants who reported a belief in God/Higher Power is quite comparable to national statistics, reflecting favorably upon the generalizability of the current findings. On average, respondents in this study endorsed high levels of religious salience (mean = 8.9 out of 12 possible scale points) and approximately bimonthly religious service attendance. This finding provides quantitative support to results from previous qualitative investigations that stressed the importance of religious faith to the population of people who have serious mental illnesses.

Hypothesis 1 predicted positive relations between religious salience and attendance and quality of life and negative associations between the two religious variables and symptomatology. This hypothesis was not supported by the data. Contrary to prediction, however, religious salience explained a significant amount of variance in empowerment, and religious service attendance was tied to increased use of recovery-promoting activities. The lack of support for Hypothesis 1 is consistent with past research indicating that general religious variables are poorer predictors of psychological adjustment than more specific styles of religious coping (e.g., McIntosh, Silver, & Wortman, 1993; Pargament et al., 1990; Schaefer & Gorsuch, 1991). Although not directly linked with the degree of one's symptomatology and life satisfaction, greater religious commitment and involvement may represent one of several manifestations of an empowered stance one can take towards recovery as a whole.

Hypothesis 2 predicted negative correlations between the two religious variables and amount of service utilization; however, no relation emerged between these variables. Perhaps, assessing the extent to which religious involvement serves as a source of social support for respondents may have clarified the nature of the association between religiosity and service use. Additionally, a negative bias against the use of mental health services held by some members of religious communities has been well documented (Thurston, 2000) but was not considered in this study. Moreover, service use data likely had their limitations. First, these data were only available for a portion of the sample. Second, they were limited to services received by participants on an outpatient basis and did not include the number of inpatient hospitalizations. Because of the presence of these limitations, the apparent lack of association found between general religious variables and use of mental health services should be interpreted with caution and explored in future investigations.

In partial support of Hypothesis 3, use of the Collaborative/Deferring coping style made a significant contribution to variance in various recovery-enhancing activities. However, contrary to Hypothesis 3, the Self-directing problem-solving style was negatively correlated with overall involvement in recovery, whereas the religious coping style of Plead was significantly positively associated with reliance on various recovery-related activities.

Hypothesis 4 predicted that reliance on the Collaborative problem-solving style would be tied to lower levels of symptom distress and better quality of life. Both Self-directing and Deferring coping styles were expected to relate to decreased quality of life, whereas Plead was predicted to account for increased levels of symptomatology. The results lent support to the associations between Plead and higher symptom distress, Self-directing coping style and lower life satisfaction, as well as between the Collaborative/Deferring approach to problem-solving and improved quality of life. These findings are largely consistent with previous research indicating the superiority of the Collaborative approach to coping and mixed implications for reliance on Self-directing and Plead styles. However, these results also extend recent research evidence indicating that deferment in relationship with God is not only used more often by people with serious mental illnesses than by individuals with other chronic medical illnesses such as diabetes (Taylor, 2000), but that it also has positive associations with life satisfaction in this population.

Taken together these findings indicate that, contrary to commonly held stereotypes that view religious faith and religious service attendance as passive coping strategies, these activities are associated with a higher sense of personal empowerment and greater adherence to various components of recovery. Moreover, in this sample, use of the combination of Collaborative and Deferring strategies emerged as a method of religious coping associated with greatest life satisfaction and involvement in recovery-promoting activities. Reliance on Plead, as expected, was associated with increased levels of symptomatology and thus may have negative consequences as a method of religious coping in this population along with other previously researched groups. Alternatively, these results could be interpreted to indicate that individuals who are highly symptomatic tend to be more helpless and thus are apt to cry for help and plead for deliverance more than higher functioning persons. Similarly, it can be argued that consumers who are more satisfied with the quality of their lives are able to relate to God/Higher Power in more secure ways, by establishing a collaborative or deferring relationship.

The fact that the use of the Self-directing strategy was negatively associated with quality of life can be tentatively interpreted as an indication that self-sufficiency does not promote life satisfaction in this population. This explanation would be consistent with much research indicating the critical role social support plays in recovery from serious mental illnesses. It is equally possible, however, that individuals who are unhappy with their circumstances may have abandoned their spiritual or religious commitments due to anger at God or despair and developed a more isolationist stance.

The consistency of religious coping profiles found in this sample with those reported in previous studies indicates that the ways in which people who have serious mental illnesses cope do not differ from the general population of physically ill individuals or college students. The first cluster, consisting of individuals who scored high on Collaborative/Deferring/Plead and low on Self-directing items, seems to represent those who are willing to engage in any coping strategy that involves God or Higher Power. This pattern may be similar to the phenomenon of indiscriminate proreligiousness, first coined and studied by Allport and Ross (1967).

Cluster 2 consists of persons who rely exclusively on their own resources to cope with adversity and who forgo sharing responsibility for problem-solving with a Higher Power. As mentioned previously, while most of these individuals endorse a theoretical belief in God, the coping strategies they choose better tap their underlying view of Deity as distant, uninvolved, or perhaps malignant and punishing. Finally, the third cluster includes participants who use a variety of coping styles in their recovery process. Because the present study did not investigate potential relations between the type of situation one confronts (i.e., in terms of appraisal of controllability) and the corresponding religious coping style used, it is difficult to ascertain whether distinguishable patterns can be found in this eclecticism.

Because the effectiveness of a particular approach to problem-solving depends on the appraisal of controllability of the problem, the latter becomes a crucial variable of interest. In this study, the assumption was made that recovery from serious mental illness includes components that are generally viewed as uncontrollable as well as those that are within one's power to change. Therefore, it was hypothesized that the Collaborative problem-solving style would prove most flexible and effective in helping one deal with the complexities of recovery. However, the participants were asked to respond to questions regarding their religious coping in the context of recovery as a whole, rather than specific aspects of the process. It is likely that assessing the respondents' appraisals of controllability over specific situations relevant to recovery and the corresponding strategies used to cope with them would provide more direct answers to the research questions.

The issue of religious delusions deserves special attention and discussion in this study. The first difficulty with this variable is the lack of precise and agreed-upon definition and measurement system. However, the questions designed to tap the presence of religious delusions in this study seemed to provide some meaningful information about the sample. In this sample, the presence of religious thinking of a delusional nature had the implication of heightened religiosity, but was not linked with functional or other recovery-related outcomes. Nevertheless, a better measurement tool is necessary to draw more definitive conclusions regarding the role of religious delusions in the spiritual and psychosocial well being of mental health consumers.

Overall, this study provided preliminary information on the nature of religious and spiritual beliefs and coping strategies and their association with recovery and level of functioning in the population of individuals with severe mental illness. In summary, future research should measure participants' appraisal of controllability over various aspects of recovery and its association with particular religious coping styles. Second, studies examining relations between religiosity and utilization of mental health services should evaluate the presence of potential religious bias against mental health treatment among respondents. Third, the issue of religious delusions and their impact on mental health consumers' religious experiences and adjustment needs to be investigated further. Finally, longitudinal studies assessing potential changes in participants' reliance on various religious coping methods, at different points in their illness, are necessary.

While further research is needed to replicate and broaden current findings, several recommendations based on the results can be made. First, mental health service consumers' reliance on religious faith and service attendance cannot and should not be dismissed as a symptom of their underlying psychopathology. Instead, it can be viewed as an empowering and recovery-promoting coping strategy and, thus, actively encouraged as part of treatment for those so inclined. Second, to those individuals who are open to exploring their spiritual and religious journeys, treatment can focus on discussing the benefits and liabilities of relying on various religious coping styles in the context of general problem-solving strategies. Both recommendations call for the need to bridge a gap between mental health and religious communities, as they work towards meeting the needs of this population.

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PROMOTING MENTAL HEALTH RECOVERY IN AN URBAN COUNTY JAIL: THE LUCAS COUNTY FORENSIC DIVERSION AND MONITORING PROJECT

University of Toledo
Department of Psychology

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Gayle H. Wuttke, MA
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Lucas County Mental Health Board

Jacqueline Martin

Forensic Diversion Programs for Criminal Offenders with Mental Illness

The policy of deinstitutionalization of individuals with mental illness from state hospitals, combined with a lack of adequate mental health care options and services within the community, has led to an increase in mentally ill persons being incarcerated in jails (Torrey et al., 1992). The U.S. Department of Justice reported in 1999 that 16 percent of all inmates in federal, state, and county jails have a severe mental illness. Within the Lucas County Jail, which has a capacity of 418 persons and an annual census of 24,000 bookings per year, an estimated 10-15 percent of the inmates are individuals who meet criteria for one or more psychiatric diagnoses (see Ventura, Cassel, Jacoby & Huan, 1998). Recently there has been a call to action for research which addresses the needs of mentally ill offenders, particularly within a framework that recognizes that mentally ill offenders can be successfully treated (Roskes, 1999). As noted by Steadman et al. (1999), "…jail diversion programs have had wide support as a way to prevent people with mental illnesses and substance use disorder from unnecessarily entering the criminal justice system by providing more appropriate community-based treatment" (p. 1620).

Steadman et al. (1999) outline two core elements that are necessary for a successful diversion program. Both of these elements are addressed in the current project: (1) Aggressive linkage to an array of community services, especially those for co-occurring mental health and substance use disorders. (2) Nontraditional case managers (addressed by the current project through the creation of a "Mental Health Team" that functions as jail and court case managers).

Diversion in the Context of a Recovery Model of Mental Illness

To date, the development and implementation of jail diversion programs has not been within the framework of emerging best practices in mental health recovery (Townsend et al., 1999). Although the concept of recovery from severe and persistent mental illness has recently received a great deal of attention in the psychiatric rehabilitation literature (Bullock, Ensing, Weddle, & Alloy, 2000; Deegan, 1997), the application of a mental health recovery model in the forensic arena is essentially absent (Lamb, Weinberger, & Gross, 1999), although efforts are currently underway to introduce mental health issues more directly into the criminal justice system (Hartwell & Orr, 1999; Marshall, 2000).

The Lucas County Forensic Diversion and Monitoring Program

The Lucas County Mental Health Board and the University of Toledo, in collaboration with the Toledo Municipal Court and Lucas County Sheriff's Department received grants from the Ohio Department of Mental Health to develop and evaluate a new forensic diversion and monitoring program.

The three core elements of the program are: (1) development of a Mental Health Team (MHT) to provide screening and identification of mentally ill misdemeanor and non-violent felony offenders, (2) aggressive linkage of known, or newly identified, mentally ill offenders to appropriate community services by MHT case managers working within the Municipal Court and Lucas County Jail, and (3) the inclusion of mental health consumers as integrated MHT program staff.

The forensic MHT program was designed to place two full time mental health case managers at the Municipal Court, two full time case managers at the Lucas County Jail, and two half-time mental health consumers as integrated program staff who would serve in an advocacy and community outreach role. Primarily variables and outcomes to be monitored include psychiatric data (e.g., diagnoses; psychiatric service utilization), criminal justice data (e.g., number of arrests; types of charges), and mental health recovery data. The long-term goals of the diversion program include: (1) reduced jail time, (2) reduced recidivism, (3) increased participation in psychiatric treatment services, and (4) promotion of mental health recovery in offenders with serious and persistent mental illness.

The Mental Health Team

The MHT is comprised of four social workers who identify, screen, check enrollment, and make community mental health referrals for appropriate consumer-offenders. In addition, the MHT includes two mental health consumers who provide advocacy and liaison work within the jail, court, and CMHCs. The MHT members work closely with, and receive referrals from, personnel in both the Municipal Court and the jail, including: judges, attorneys from the public defender's office, intake officers and unit counselors within the jail.

University Research Team and Mental Health Recovery Data Collection

In addition to managing psychiatric and forensic data on referrals received by the MHT, the University research team also has initiated planned follow-up interviews with selected program participants. To date, 73 individuals have been interviewed by research staff and were administered a battery of psychometric recovery-oriented questionnaires.

Participants

Participants in the project are individuals who have been arrested for misdemeanor or non-violent felony crimes, who are known to be mental health consumers, or evidence behaviors indicative of mental illness. Referral to the Mental Health Team may come at any stage in the criminal justice process, but typically referrals are received from intake workers or unit counselors at the jail. In general, program participants were charged on a wide variety of misdemeanor or non-violent felony crimes, such as parole violations, drug abuse, loitering, solicitation, or disorderly conduct/intoxication; however, the modal charge was for domestic violence, and a few cases did involve more violent charges (e.g., assault, aggravated robbery, abduction).

Measures

Data available from the Lucas County Jail, Mental Health Board and/or Community Agency providers include: demographic information; diagnostic data; criminal justice data (e.g., number of days in jail; criminal charges; re-arrest rates), and psychiatric agency service utilization data (e.g., psychiatry services and case management utilization; number of hospital days; use of crisis services; costs accrued).

Interview and self-report data include: The Empowerment Scale ("Making Decisions") (Rogers, Chamberlain, Ellison, & Crean, 1997 -- Boston); The Community Living Skills Scales (Smith & Ford, 1990 -- Hill House); The Mental Health Recovery Measure (Young, Ensing, & Bullock, 2000); The Ohio Mental Health Consumer Outcomes System Adult Consumer Form A (Ohio Department of Mental Health, 2000); The Hare Psychopathy Checklist-Revised (Hare, 1991).

Jail Referrals Received and Linkages to Community Agencies

The forensic diversion and monitoring program was initiated September, 2000, managed by Northcoast Behavioral Healthcare and with the University of Toledo Department of Psychology supervising the data management and research component. In the first seven months of operation of this new program (September, 2000 – March, 2001) 1,448 screening referrals were received by the Mental Health Team, comprising 1064 men (73%) and 384 women (27%). Average age of the screening referrals was 35 years old (*SD* = 8.4; Range 18 – 60). With regard to ethnicity of the initial screening referrals, 53 percent were European-American, 43 percent were African-American, three percent were Latino/Hispanic-American, and one percent were other ethnicity.

The 1,448 mental health screening referrals received represents 10.3 percent of all persons booked into the Lucas County Jail (*N* = 14,079) during this seven-month period. Of the 1,448 referrals received, 833 (58%) were found to be either currently or previously open cases receiving community mental health services in Lucas County or other Ohio counties, or were new cases evaluated by the MHT to be in need of services. Specifically, 34 percent of referrals were currently open CMHC cases, nine percent were previously open but now closed CMHC cases, and 15 percent were newly identified cases. The majority of currently open or closed cases came from the three lead community mental health agencies (see Table 1). Of the 211 new linkage appointments made, 185 (88%) were made for newly identified individuals, or for individuals who were previously open but currently closed agency cases from all three agencies. Twenty-six linkage appointments (12%) were made for currently open cases (at Harbor and Zepf only).

Due to a Federal Court order to reduce overcrowding in the jail, individuals with misdemeanor or non-violent felony charges are typically released within 12 days, even if they can not afford bail. Thus, participants identified as mental health consumers by the MHT have a community agency appointment made for them (based on expected release date) for follow-up psychiatry and case management services at appropriate agencies after release from jail. Table 2 illustrates the number of individuals for whom a community mental health center (CMHC) appointment was made during the seven month period (*N* = 211 appointments made September, 2000 - March, 2001). Table 2 also illustrates the difficulty of getting the participants to successfully make it to their scheduled community appointments following release. Of the 211 appointments made during this three-month period, only 23 percent made the appointment as originally scheduled. The overall no show rate was 18 percent and the overall cancellation rate was 16 percent. An additional complicating factor was unexpected continuation of judicial involvement in 23 percent of the cases that precluded persons from keeping community agency appointments (including a very quick re-arrest following release in 16 of the cases, and unanticipated continued incarceration in 30 cases). The determination of linkage success was further complicated by the lack of feedback regarding 21 percent of the cases, whose linkage success/failure was not communicated to the Jail Mental Health Team (see Table 2).

The single best month for successful follow-through of linkage appointments made was during the month of December. Of 40 CMHC appointments made for the month of December, 15 (38%) clients made the appointment as originally scheduled, significantly higher than the overall success rate. This

atypical success rate appears to be attributable to the intensive community outreach efforts made in that month; for example, emphasizing home visits by a social worker or consumer advocate following release from jail, and in some cases transporting persons to their CMHC appointment.

Table 1. Community Mental Health Agency Enrollment / Linkage Data Lucas County, Ohio Forensic Mental Health Team Jail Referrals: September, 2000 through March, 2001 (*N* = 1,448 referrals)[a]

Agencies	Open Cases	Previously Open/ Currently Closed	New Appointments Made to Link[b]
Lead Agencies			
Zepf CMHC	146	30	65
Unison CMHC	174	82	114
Harbor CMHC	46	19	32
Other Mental Health and Substance Abuse Agencies			
COMPASS	24		
SASI	10		
TASC	11		
Connecting Point	2		
Adalante	2		
Rescue	5		
Private/MCO/NWO	35		
Other Ohio Counties	20		
V.A.	12		
Northcoast /State	4		
Total	**491 (34%)**	**131 (9%)**	**211 (15%)**

Note. Grand Total = 833 (˜ 58%) of 1,448 screening referrals.

[a]253 of the 1,448 cases (˜17%) initially referred for screening were not seen by the mental health team, e.g., as a result of bonding out within 24 hours of arrest.

[b]185 of these 211 linkage appointments (88%) were made for newly identified cases or for previously open but currently closed agency cases at all three lead agencies. Twenty-six appointments (12%) were made for currently open cases (at Harbor and Zepf only).

Measuring Psychiatric Status, Recidivism, and Mental Health Recovery

Table 3 provides demographic, diagnostic, psychiatric, and criminal justice data on a subsample (*N* = 73) of the mental health consumers who have been individually interviewed and administered the psychometric recovery measures. As can be seen in Table 3, the psychiatric as well as criminal justice history of these participants in the program is extensive. Sixty-six percent of the sample reported that they were on psychiatric medication currently or just prior to incarceration. The mean number of previous psychiatric hospitalizations was 4.1 (range 0 – 13) prior to current incarceration. Preliminary diagnostic impressions centered around Depression or other Affective Disorder (40%), Bipolar Disorder (25%), and

Schizophrenia or other Psychotic spectrum disorders (16%). Of this sample, 78 percent had a comorbid substance abuse problem in addition to any other Axis I diagnosis.

While 41 percent of the sample reported living in their own house or apartment prior to arrest, and 19 percent reported living in a relative's house, apartment, or a group home, the remainder were either homeless (13%), or "functionally homeless" (26%) living in various friends' houses or apartments. With regard to criminal justice history, the mean number of arrests in the previous year was three arrests (*SD* = 4; Range 1–13), with an average of 36.8 days spent in jail in the previous year. The mean number of arrests in the prior three years was 7.5 arrests (*SD* = 7.8; Range 1–39), with an average of 68.0 days spent in jail in the last three years. It was noteworthy that a comparison sample of 30 forensic consumers currently being provided intensive community support services through Northcoast CSN program had significantly fewer arrests and days in jail in the last year compared to the County Jail sample (see Table 3).

Table 2. Measuring Success of Follow Through After Agency Linkage: Linkages Appointments Made to Community Agencies and No Show and Cancellation Rates for Jail Referral Clients, September, 2000 – March, 2001

	Agency			
	Unison	Zepf	Harbor	**Total**
	***n* (%)**	***n* (%)**	***n* (%)**	***n* (%)**
Appointments Made:	114	65	32	211[a]
Appointment Kept:	21 (18%)	16 (25%)	11 (34%)	48 (23%)
No Show:	20 (18%)	15 (23%)	3 (9%)	38 (18%)
Cancellation	24 (21%)	7 (11%)	4 (12%)	35 (16%)
Cancellation Due to Continued Forensic	26 (23%)	11 (17%)	9 (28%)	46 (23%)
Unknown Outcome:	23 (20%)	16 (25%)	5 (16%)	44 (21%)

Note. **"**Cancellation" refers to cancellations of appointments made by either the client or a member of the Jail Mental Health Team with 24 hour (minimum) notice to the agency. Reasons for cancellation by the Mental Health Team included: Inability to contact client via home visit attempts, no response to phone contact attempts, or upon contact following release from jail the client declined further treatment services. "Cancellation Due to Continued Forensic" are those appointments cancelled by the Mental Health Team due to the individual either being rearrested before they could make their scheduled appointment *n* = 16 (7.5% of appointments made), or persons with unanticipated continuing incarceration *n* = 30 (14%).
[a]Overall, 37 of these 211 clients (17%) have been rearrested at some time within these 7 months, ranging from one rearrest to five rearrests.

As part of the follow-up interview with the subsample of jail referrals (*n* = 73), participants were administered a battery of self-report measures which, collectively, provided an initial portrait of the level of mental health recovery experienced by mental health consumers within the jail. Table 4 provides the

mean total scores for the jail program participants on three recovery measures, and compares the jail participants to recovery data collected from three other samples of mental health consumers. These analyses revealed that the jail participants were lower in self-reported recovery compared to all three of the other consumer samples, including the forensic CSN sample involved in treatment through Northcoast Behavioral Healthcare (see Table 4).

Table 3. Demographic, Psychiatric, and Criminal Justice Data on the Follow-up Interview Sample of Jail Mental Health Team Participants (n = 73) and Forensic Community Support Network (CSN) Participants (n = 30)

	Jail *n* (%)	CSN *n* (%)	χ^2 (N = 103)
Living Situation Prior to Arrest			33.08***
Own House/Apartment	30 (41%)	11 (37%)	
Relative's House/Apartment	13 (18%)	5 (17%)	
Friend's House/Apartment	19 (26%)	1 (3%)	
Homeless	9 (13%)	1 (3%)	
Group Home	1 (1%)	12 (40%)	
Diagnosis (primary Axis I, exclusive of Substance Abuse/Dependence)			53.04***
Schizophrenia/Psychotic NOS	12 (16%)	28 (93%)	
Depression or Affective NOS	29 (40%)	1 (3%)	
Bipolar Disorder	18 (25%)	1 (3%)	
Anxiety Disorder/Anxiety NOS	5 (7%)	0	
Adjustment Disorder	6 (8%)	0	
Other Axis I Disorder/Unknown	8 (4%)	0	

	Jail		CSN		
	M	(*SD*)	*M*	(*SD*)	*t* (95)
Age (Range 18 to 60)	35.0	(8.51)	39.6	(8.97)	2.35*
Previous Hospitilzations	4.1	(7.78)	12.0	(11.34)	3.47**
	M	(*SD*)	*M*	(*SD*)	*t* (92)
Arrests in the Last Year	3.2	(4.0)	.3	(.6)	9.56***
Jail Days in the Last Year	36.8	(38.1)	5.9	(15.6)	5.60***
Arrests in Previous 3 Years	7.5	(7.8)	1.9	(2.3)	5.93***
Jail Days in Previous 3 Years	68.0	(71.3)	85.2	(148.7)	.59

*p < .05, **p < .01, ***p < .001

Summary and Preliminary Conclusions

In the first seven months of the project, over 800 mental health consumers were identified in the jail and court from nearly 1,500 referrals, and over 200 were provided with screening and linkage services by a newly created mental health team. Initial identification and referral efforts have been very successful; however efforts to achieve consumer follow-through with CMHC referrals, and efforts to monitor consumers once they have left the jail have been less successful. Also, within this short time

frame, the program has already seen 17 percent of the participants re-arrested following release. Although the scope of the problem was made clear by the efforts of the MHT, the program goals of significantly reducing recidivism and promoting recovery through aggressive community linkage and monitoring remain. In addition, the program goal of placing two MHT case managers within the Municipal Court to work intensively on more "front door" diversion has been a difficult process to work out, due to both logistical and personnel reasons.

Table 4. Means (*SD*) for Total Score on Three Mental Health Recovery Measures and Effect Sizes (d) Comparing Lucas County Jail Participants to other Mental Health Consumer Groups[a]

Consumer Group	Mental Health Recovery	Empowerment "Making Dec."	Community Living Skills
Lucas Co. Jail (n = 73)	102.5[a] (18.3)	72.4[a] (7.7)	80.5[a] (15.9)
Northcoast (n = 30)	120.6[b] (13.9)	77.5[b] (6.9)	98.2[b] (16.9)
Group Home (*n* = 44)	101.4 (13.2)	78.7 (8.4)	104.9 (21.1)
Leadership (*n* = 20)	109.4 (19.7)	85.4 (9.9)	105.5 (21.0)

The Effect Size (*d*; Cohen, 1988) for the mean differences between participants from the Lucas County Jail and the next closest consumer group mean for each of the three recovery measures was:

MH Recovery *d* = .67 ("medium to large effect" difference) for Jail vs. Group Home

Empowerment *d* = .69 ("medium to large effect") for Jail vs. Northcoast BHC

Community Living Skills Scale *d* = 1.01 ("large effect") for Jail vs. Northcoast

Note. Group Home refers to a sample of non-forensic mental health consumers who recruited from one of 15 residential care facilities in Northwest Ohio. Northcoast refers to forensic consumers recruited through the PACT and inpatient treatment programs at Northwest Behavioral Healthcare hospital. "Leadership Education" group refers to sample of non-forensic consumers who had completed a 16-week didactic and experiential training program designed to promote recovery by preparing consumers for participatory roles on community agency governing boards and committees. See Bullock, W. A., Ensing, D. S., Alloy, V. E., & Weddle, C. C. (2000). Leadership Education: Evaluation of a program to promote recovery in persons with psychiatric disabilities. *Psychiatric Rehabilition Journal, 24,* 3-11.
[a, b]Means with different superscripts are significantly different at $p < .05$ for t (df = 96) comparing Lucas Co. Jail to Northcoast participants.

In April 2001 the management of the MHT program was changed from Northcoast Behavioral Healthcare to Unison Behavioral Healthcare. This transition in the management and direction of the MHT program led to the loss of several MHT case managers and consumer advocates who were providing screening, referral, and monitoring services for the consumer-offenders at the jail. Replacement staff are currently being hired and trained as the program goes through this transition. With the assistance of the Lucas County Mental Health Board (and now also Unison), the University of Toledo research team is continuing to manage data collection and analyze program data to determine rates of recidivism and CMHC service utilization following participation in the program. Based on results of program activities in the first year, tentative conclusions and recommendations for the future include the following:

1. Treatment engagement remains the key issue. The consumer-offenders are anxious, angry, distrustful and unmotivated for treatment. They are uninformed regarding community resources and alternatives. The psychiatric symptoms, denial, shame, and stigma associated with mental illness all interfere with motivation to take advantage of community resources.

2. Successful engagement of forensic consumers can be facilitated by consumer advocates. Mental health consumers in the current project served as sources of information and as role models for recovery choices and available resources for 149 consumer-offenders. The consumer advocate is in a unique position to promote the "hope" and "acceptance" that are critical to the initiation of an individual's recovery process.

3. Greater attention must be paid to dual diagnosis for this population. Over 70 percent of the consumer-offenders identified had co-occurring substance abuse/dependence (cf. Swartz & Lurigio, 1999).

4. Intensity of community case management following jail release is positively related to treatment engagement and promotes better continuity of care. This requires community-based contact after jail release (i.e., continued case management responsibility by the court/jail MHT), and may include transportation to initial CMHC appointments and subsequent court hearings.

5. Better communication with and education of the Municipal Court regarding the goals, policies, procedures, and outcomes of the court/jail mental health team is needed. Feedback and accountability to Municipal Court personnel (judges, court clerks, probation officers, and public defenders) is essential to the success of this project.

6. Clarity of roles, responsibilities, and expected time frames of all mental health agency providers is critical to provide continuity of care from the jail/court to the community. The accountability desired by the Municipal Court requires a higher degree of interagency communication, better post-release monitoring, and improved agency feedback to the court/jail mental health team than was possible in the first year of the project. A formal "memorandum of understanding" between these stakeholders would help to articulate the roles, responsibilities, and expected time frames of each agency, including the issue of medication continuity following jail release.

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MENTAL HEALTH RECOVERY IN PSYCHIATRIC GROUP HOME RESIDENTS

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Although recovery is still considered a relatively new concept in the field of mental health, numerous efforts have been directed toward defining the process (Anthony, 1993; Breier & Strauss, 1984; Deegan, 1988; Hatfield & Lefley, 1993; Young & Ensing, 1999), as well as ways to promote the recovery process (Bullock, Ensing, Alloy & Weddle, 2000). Taken together, these investigations have identified some core elements that are important in the recovery process. While the conceptualizations of recovery vary in some ways, reflecting the highly individualized nature of recovery from severe and persistent mental illness, there are common underlying elements across these definitions. These include concepts such as "empowerment," "responsibility," and "control." From the nature of these frequently cited core constructs, it might be falsely inferred that the acquisition of mental health recovery necessitates independent living. Unfortunately, such an assumption ultimately serves to exclude an entire group of consumers--namely psychiatric group home residents. Moreover, making such an assumption would essentially be working in opposition to a movement that is intended to unite and empower *all* consumers.

Torrey and Wyzik (2000) raise a similar concern about the applicability of the current recovery paradigm. Torrey and Wyzik wonder, "given what is known about the course of severe mental illness, does using the term [recovery] in clinical care irresponsibly raise the false hope of easy cure? Is the recovery vision relevant for only bright, educated, less severely ill consumers who can take charge of their own lives with relative ease? And will some consumers with ongoing debilitating symptoms blame themselves for not recovering, thereby becoming even more demoralized?" (p. 210). While it is important to consider all possible impacts of such a revolutionary movement, Torrey and Wyzik (2000) conclude that "the recovery vision's hope promoting benefits outweigh its possible problems" (p. 210). Nevertheless, if certain consumers are excluded from such an inspiring ideal, very real problems might ensue. Such a trend could inadvertently perpetuate self-stigmatization within the consumer community, with independent living consumers' experiences of recovery being regarded as more valid than the experiences of consumers in alternative living arrangements. This stigmatization would likely increase feelings of hopelessness, powerlessness, and stagnation in the residents. Ironically, the same mentality that would be promoting recovery in one sub-group of consumers (independent living consumers) would be hindering the recovery of another sub-group (group home residents).

It is possible that group home residents are already receiving an implicit message concerning their place (or lack thereof) in the recovery movement during this exciting period of new directions in mental health care. Deegan (2000) suggests that "microagressions" such as shabby decor, bad food, foul odors, staff control of the television remote, or segregated staff/resident restrooms all convey the message that individuals living in such conditions are not worthy or important human beings. These terms are all too often accurate descriptors of psychiatric group homes. Similarly, the lack of current research pertaining to the effectiveness of psychiatric group homes can be construed as a microaggression on the behalf of mental health researchers, insinuating that individuals participating in this form of treatment are somehow less worthy of quality, effective, empirically informed care. Many of the existing studies are extremely dated, conducted at a time when psychiatric group homes were novel treatment approaches. This initial interest appears to have been short-lived, however. Moreover, the recent attention that has been directed toward the psychiatric group home seems to have been prompted not by a renewed interest in the lives or

needs of this sub-population of consumers, but by the money-driven interest of a managed care era, in which the research is primarily intended to assess less costly alternatives to psychiatric hospitalization. Such outcome comparison studies have demonstrated that residential treatment yields outcomes comparable to hospitalization, yet is considerably more cost-effective (Fenton, Mosher, Herrell, & Blyler, 1998; Hawthorne, Green, Lohr, Hough & Smith, 1999; Rothbard, Schinner, Hadley, Foley, & Kuno, 1998). Furthermore, Cournos (1987) remarked that psychiatric residential facilities offer "opportunities for independence and initiative that had not been present in the mental hospitals" (p. 849). Nevertheless, research pertaining to adult residential psychiatric care remains extremely limited. In fact, many of the potential research questions raised by Cournos in 1987 remain unanswered and unaddressed after more than a decade. These include issues such as the following: "Should community residences be conceptualized as treatment programs or living settings? Should staff be professionals or laymen? How much supervision should they provide? How close a connection with the mental health system should programs have?" (p. 849). Perhaps most notable is that the sub-group of psychiatric group home residents with severe and persistent mental illnesses is virtually unmentioned in the recovery literature.

The recovery paradigm is still in early stages of development; thus, empirical research that contributes to our knowledge of recovery as it applies to individuals living in a group home will have important implications not only for the future of the psychiatric group home as a treatment modality, but for the recovery paradigm as a whole. This investigator's recent master's thesis project (Weddle, 2000) examined attitudinal factors and recovery in the psychiatric group home. Participants included individuals who were currently residing in one of twelve group home settings and a comparison group of Leadership Training and Education (LTE) Program graduates who had completed a formal program designed to promote and enhance recovery from severe mental illness. Interestingly, on a self-report measure of recovery, The Mental Health Recovery Measure (Young & Ensing, 1999), group home residents reported levels of recovery strikingly similar to LTE graduates. This finding suggests that group home residents are experiencing comparable levels of self-perceived recovery, despite the possible limitations sometimes thought to be inherent in a group home setting. If these limitations become the focus of residential treatment and, as a result, the psychiatric group home is not considered a viable milieu for recovery to occur, then the recovery movement has failed in one of its primary goals--inclusion and inspiration of all consumers.

Patricia Deegan, who is both a consumer and a clinical psychologist, as well as one of the major proponents of the recovery vision, maintains that recovery *can* mean living with no symptoms, no medication, and no mental health services; however, she emphasizes that, in many cases, recovery means continuing to live with vulnerabilities (Deegan, 2000). However, another proponent of the recovery vision, Courtenay Harding, maintains that more often than not, to be "recovered" essentially means being asymptomatic. Harding suggests that pessimism concerning the ability of a consumer living with a severe mental illness to one day be symptom free is, in fact, significantly reducing the individual's opportunity for improvement or recovery (Harding, Zubin, & Strauss, 1987) While both Deegan and Harding share the common interest of promoting recovery in consumers, Deegan points out that one individual's experience of recovery should not be considered more "real" than another's, despite the presence or absence of symptoms. In other words, if the self-reported experience of recovery for consumers in a group home cannot be respected as such, then consumers are once again being subjected to a provider-driven system in which mental health providers engage in a paternalistic, care-taking approach which does little to foster recovery.

On the other hand, research pertaining to consumers in residential treatment could serve not only to increase our understanding of recovery in this population in general, but also to convey a message of hope (which we already know is of importance in the recovery process) and validation to these

consumers, in that their experiences are important and meaningful contributions to the field of mental health. Deegan (2000) cautions mental health providers that the concept of recovery cannot be fit neatly into a box. To try and do so, according to Deegan, would be doing the phenomenon a grave injustice. Therefore, future research pertaining to different populations' experiences of recovery is essential in maintaining the purity and integrity of the original concept. As a doctoral dissertation project, this investigator is conducting a qualitative study designed to explore in depth the experience of recovery from the perspective of psychiatric group home residents. Specific research questions include: 1) What constitutes mental health recovery from the perspective of psychiatric group home residents? 2) What experiences in the group home do residents consider helpful in promoting the recovery process? and 3) What experiences in the group home do residents feel have hindered their recovery from mental illness?

Methodology

Seventeen individuals who have been diagnosed with a severe and persistent mental illness and who are currently residing in a psychiatric group home were included for participation in this study. Participants were either interviewed individually by the investigator or asked to participate in a focus group discussion in order to explore the concept of recovery in a psychiatric group home setting. The interview protocol for consumers being interviewed individually consisted of modified versions of questions used in previous qualitative recovery research conducted by Young and Ensing (1999). Grounded theory analysis (Rennie, Phillips, & Quartaro, 1988) will be used to identify the common, underlying components identified by the group home residents, and a possible recovery model, specific to this population of consumers, will be formulated. Data analysis is in progress at this time.

Anticipated Results and Implications

The qualitative nature of this study is expected to further explore, disentangle, and clarify issues surrounding resident views of life in a psychiatric group home. It is imperative that these individuals finally be "heard," as they are tremendously underrepresented not only in the recovery literature but in the treatment outcome research as well. It is certainly irresponsible and arguably unethical to continue to place mental health consumers in residential facilities without a clear understanding of the benefits or detriments that ensue as a result.

Qualitative studies typically provide rich data and emerging themes that lend themselves well to future studies. Particularly with respect to group home residents, studies that inspire and promote future related research are invaluable at this point in combating the apathy that has plagued this population. The results of this study and others focused on psychiatric group home residents will have important implications for the future direction of psychiatric care.

Torrey and Wyzik (2000) point out that consumers talking about recovery are trying to communicate what they want and need from our services. Once the psychiatric group home residents have had this opportunity, it is essential that we make use of the information. Corrigan (1995) proposes the recruitment of "champions" to embark on "setting up and carrying out rehabilitation innovations in existing programs" (p. 514). Moreover, Corrigan proposes that clinical psychologists are ideal candidates to champion such recovery oriented program development. Corrigan acknowledges that traditionally, the role of clinical psychologists and the direct service they provide has been "unnecessary or irrelevant for severely mentally ill adults" (Corrigan, 1995, p. 518). However, he warns against enabling this tradition to "preclude them from assuming the champion's responsibilities" and maintains that "program and staff supervision will be enhanced when psychologists are champions of rehabilitation" (Corrigan, 1995, p. 518). Unfortunately, the role of team manager as opposed to direct care provider is not a role readily

accepted by psychologists (Hess, Buican & Corrigan, 1994). This reluctance may be a result of many contributing factors, some of which may be specific to working with this particular population. In fact, psychologists may, too, subscribe to negative attitudes concerning the capabilities and prognosis of individuals diagnosed with a severe and persistent mental illness and therefore be skeptical of the benefits of any form of treatment, apart from psychotropic medication. This negativity may be more salient while considering the seriously mentally ill group home resident. Group homes often conjure up images of stagnation, defeat, and dependency. It is therefore understandable that professionals are often less than enthusiastic about providing services in this realm. As a result of these negative stereotypes, it is even more important that mental health professionals work toward identifying and modifying these counterproductive attitudes and maintain a proactive, optimistic stance while working with these individuals. This process can likely be facilitated by learning more about the reality of these individuals and their experiences. According to Mirabi, Weinman, Magnetti, and Keppler (1985), the current situation "can be corrected only if mental health professionals band together and advocate a more positive attitude toward chronic mental illness" (p. 405).

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EFFECTIVENESS OF COGNITIVE SKILLS TRAINING FOR DUALLY-DIAGNOSED PERSONS WITH MENTAL ILLNESS

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Over the past two decades, the field of mental health has moved away from the institutionalization of individuals with severe and/or chronic mental illness, and toward a model of community integration (Roth, Lauber, Crane-Ross, & Clark, 1997). Along with these changes has come a need for a range of additional services in the community to replace and supplement the functions of the long-term institutional care. Policy changes have led to an increase in the number of services received by individuals meeting the criteria for a severe mental disability in the state of Ohio over the past several years, partly because increasing emphasis on case management has resulted in better consumer access to additional services (Roth et al., 1997). Nevertheless, persons with mental illness continue to experience high rates of relapse with inpatient admissions, homelessness, and unemployment (Kessler, Foster, Saunders, & Stang, 1995). Therefore, a great need still exists for more effective treatment strategies allowing mentally ill consumers to live independent and productive lives in the community.

As many as half of all individuals with a serious mental illness are also dependent on alcohol and/or illicit drugs (Kessler, Nelson, McGonagle, Edlund, Frank, & Leaf, 1996). National epidemiology studies over the past ten years have found high prevalence rates of alcohol and/or drug comorbidity for persons with a diagnosed mental disorder, around 29 percent in the general population (Reiger, Burke, & Burke, 1990). Comorbidity is especially high in clinical patient populations, with estimates ranging from 25 percent to as high as 68 percent in persons receiving mental health treatments (Mowbray et al., 1995; Conner, Silverstein, Melnyk, & Maxey, 1995). Estimates of co-occurring psychiatric disorders in persons with substance use disorders are also consistently high (Helzer & Przybeck, 1998; Penick, Nickel, Cantrell, & Powell, 1990).

A history of deep divisions between mental health and substance abuse treatment services often result in failure to provide coordinated services for these dually diagnosed consumers (Burnam et al., 1995). Moreover, they appear to have an especially difficult time receiving and maintaining treatment, and achieving successful treatment outcomes (Bartels, Drake, & Wallach, 1995). Dually diagnosed consumers who do enter treatment appear to require longer and more intensive treatment (Moos, King, & Patterson, 1996). Furthermore, inpatient readmission rates are much higher for dually diagnosed consumers than for those with only severe mental illness (Gupta, Hendricks, Kenkel, Bhatia, & Haffke, 1996) or with only substance abuse diagnoses (Moos & Moos, 1995). In the rehabilitation field, substance abuse among persons with mental illness has been found to impact negatively on work performance and rehabilitation outcomes (Brown & Saura, 1996). Finally, substance abuse diagnoses often cost more to treat than other chronic conditions (e.g., arthritis, asthma, and diabetes), especially for individuals with mental health claims (Garnick, Hendricks, Comstock, & Horgan, 1997).

Mental illness and substance abuse conditions alone frequently lead to cognitive impairments. When these conditions co-occur, cognitive impairments are especially likely to impact treatment outcome. Many additional disability conditions also lead to or intensify cognitive difficulties. Most notably, toxicity from substance abuse may cause brain dysfunction that does not necessarily disappear with recovery from active use (Cleveland & Denier, 1998). Moreover, persons who abuse substances have a higher risk of traumatic brain injury (TBI) (Corrigan, 1995).

Thus, effective treatment of mental illness must take into account differences among consumers in their levels of cognitive functioning (Silverstein, Hitzel, & Schenkel, 1998). This is of particular importance when additional disabilities such as substance use disorder or TBI are present. However, the vast majority of treatment programs do not address the potential cognitive limitations of their clients. For example, many treatment models utilize psychoeducational components, which typically involve didactic instruction in a group setting. The extent of memory, attention/concentration, and analytical thinking deficits frequently present in persons with mental illness (particularly in combination with prolonged substance use and/or TBI) may render instructional components delivered at a "standard level" less effective. Consequently, cognitive limitations that go unaddressed are one important cause of treatment failures in programs serving dually diagnosed mental health consumers. Despite this, there has been very little research or clinical focus on cognitive deficits among dually diagnosed individuals.

This study, currently in its final year of funding, examines the extent and impact of cognitive deficits in a sample of individuals with mental illness and substance use disorders. We expect that study participants will exhibit cognitive difficulties across three major areas: attention, memory, and executive functions (e.g., problem-solving, verbal comprehension, abstract reasoning). We are examining the relationship of such problems to treatment variables, predicting that persons with more severe attention, memory, and thinking difficulties will also have more difficulty achieving successful treatment outcomes. Finally, we are assessing the effectiveness of a new treatment intervention that focuses on helping consumers learn strategies to compensate for cognitive deficits. The intervention, known as Cognitive Compensation Skills Training (CCST), is a supplement to existing treatment for substance use disorders in persons with mental illness. If it is successful, this type of intervention could easily be exported into a variety of different mental health treatment settings, and could provide a relatively low-cost approach to assisting consumers in overcoming the cognitive deficits that may disrupt successful treatment.

Participants

Ultimately, the study will include 100 individuals recruited from the Consumer Advocacy Model (CAM) as well as additional residential treatment programs within the Dayton area. The CAM program is a community based substance abuse treatment service for individuals with severe co-existing disabilities. Selection criteria for entry into the study are the presence of diagnoses of both a substance use disorder and a mental illness, based on history, clinical interviews with staff, and brief diagnostic screening interviews with potential participants.

Measures

Specific measures have been identified for areas of clinical, social, and vocational functioning, as well as for each targeted domain of cognitive functioning. Measures of clinical functioning include (a) the Addiction Severity Index (McLellan, Luborsky, Woody, & Obrien, 1980), a comprehensive clinical/research instrument designed to assess the array of problems that occur among persons receiving substance abuse services, and (b) the Brief Psychiatric Rating Scale (Overall & Gorham, 1962), a structured interview assessing major psychiatric symptoms including affect and mood, anxiety, thought disorder, and somatic and psychomotor symptoms. Social and vocational measures include (a) the Employability Rating Scale (Ben-Yishay, Silver, Piasetsky, & Rattok, 1987), measuring level of employment productivity; (b) the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), a self-report scale measuring the degree to which individuals feel pleased with their current life situation, and (c) the Quality of Life Rating (Huebner, Allen, Hanlon-Inmon, Gust, & Turpin, 1998), a survey instrument used to quantify the individual's subjective quality of life in a number of life domains.

Utilizing their interactions with consumers in treatment, therapists also complete ratings of each client's cognitive status based on a neurobehavioral rating-type scale.

Cognitive functioning is measured at intake and at 12-weeks across the three main domains of interest. Executive functions are assessed using (a) the Raven Coloured Progressive Matrices, a measure of nonverbal problem-solving ability; (b) the Trail Making test (War Department, 1944), a widely used test of visual-conceptual and visual-motor tracking; and (c) the Token Test (Lesser, 1976), a measure of verbal comprehension and the capacity to use syntax. Tests of attention include the Ruff 2 & 7 Selective Attention Test, a measure of visual scanning and vigilance, and the Bried Test of Attention, which assesses auditory attention and concentration. Memory is assessed using the Rey Auditory-Verbal Learning test (Rey, 1964), measuring aspects of verbal memory, and the Rey Complex Figures Test, a measure of visuospatial ability and visuospatial memory.

Procedure

Participants are recruited into the study approximately one month after admission to the treatment program (to reduce attrition). Each consumer is screened for study eligibility, then randomly assigned to experimental (CCST) versus control (no-CCST) conditions. Those consumers agreeing to participate then complete the baseline assessment. Subsequently, participants in the experimental group attend CCST intervention sessions administered in small groups on a twice-weekly basis for 12 weeks by a trained master's level clinician. Each session consists of an independent module covering a specific training topic, to allow for different start and stop dates for different participants, and lasts approximately 45 minutes. Experimental group participants and control participants continue to receive all traditional CAM services during the experimental period. Following the 12 weeks, all experimental and control group participants complete a follow-up assessment, consisting of all cognitive measures, two scales of the ASI, and all other measures.

Hypothesized Outcomes

1. Cognitive Functioning at Baseline

    a) Participants will exhibit cognitive dysfunction across one or more of three major areas: executive functions, attention, and memory.
    b) The severity of cognitive deficits will be negatively correlated with clinical, social, and vocational functioning, and positively correlated with severity of past and current substance abuse and with severity of mental illness.

2. Cognitive Change at 12-Week Follow-up

    a) Participants completing the series of 24 CCST modules will demonstrate improved cognitive functioning relative to their own performance at baseline;
    b) Participants completing the series of 24 CCST modules will demonstrate improved cognitive functioning relative to participants in control group.

3. Relationship of Cognitive Change to Treatment-Related Variables

    a) Participants completing CCST modules will demonstrate treatment improvement, including less use of alcohol and other drugs and lower levels of psychiatric symptoms,

as well as higher therapist ratings and self-perceptions of functioning and increased levels of life satisfaction at 12-week follow-up.

b) Participants completing CCST modules will demonstrate greater levels of treatment improvement relative to participants in control group.

Findings

Currently, the study database includes initial baseline test results from approximately 80 participants, and pretest/posttest data on 40 individuals. Importantly, there are no significant between-group differences on cognitive measures at baseline testing, suggesting that both the control and treatment groups possessed similar cognitive functioning levels prior to the intervention.

Analysis of the cognitive change occurring over time indicates cognitive improvement on selected variables for both the experimental and control group. Indeed, all participants displayed improvement on cognitive variables within each of the primary domains of attention, memory, and executive control functioning. Time effects suggested that both groups improved on verbal memory (Rey Auditory Verbal Learning Test – Total score and Immediate Recall) with ($F = 7.13$, $p < .05$) and ($F = 6.53$, $p < .05$) respectively. Both groups also displayed improvement over time on a test of visual memory (Rey Figure; delayed recall score) with $F = 4.75$, $p < .05$. On a measure related to problem-solving/executive control functioning (Ravens Progressive Matrices) both groups also displayed a time effect ($F = 14.1$, $p < .05$). On measures of attention (Ruff 2 and 7 Test), an interesting finding emerged which suggested that both groups performed more slowly at time 2, yet demonstrated decreased error rates. Specifically, speed scores resulted in $F = 7.98$, $p < .05$ suggesting increased processing time at time 2, while the accuracy score ($F = 11.7$, $p < .05$) was significant in the direction of fewer errors at time 2. Overall this pattern of response indicates that participants proceeded more carefully and with a less impulsive style of responding. These findings are consistent with an overall trend for improved cognitive functioning following a period of abstinence.

Comparisons between the control and experimental groups showed differences only within the attentional domain. The major findings using the Ruff 2 and 7 Test involve the groups' differential accuracy scores when responding to a more basic (automatic) attentional task vs. a more complex (controlled) task. In this case the experimental group displayed a more consistent pattern across the two difficulty levels than did the control group ($F = 4.4$, $p < .05$). This suggests that the experimental group may have been as effective on the more difficult controlled task as they were on the automatic task. Conversely, the performance of the control group may have deteriorated more dramatically when confronted with the more complex attentional demands of the controlled search task.

Overall the preliminary findings reported here are consistent with those hypothesized by the investigators. However, it is likely (as revealed by previous power analysis) that additional between group differences will emerge as the overall sample size increases, and the experimental and control group size become more equivalent.

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RECOVERY OUTCOMES IN MAHONING AND TRUMBULL COUNTIES

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There has been significant research indicating that recovery from mental illness is impacted by multiple factors including clients' initial coping skills and level of functioning (Carver, Scheir, & Weintraub, 1989), clinical attitudes and family members' attitudes toward mental illness (Wilson, 1992), and overall community attitudes and level of support for recovery (Tessler & Goldman, 1982). Anthony (1993) has indicated that recovery is a multi-dimensional concept and offered the following definition of recovery: "a deeply personal unique process of changing one=s attitudes, values, skills, feelings, goals and/or roles" (p.15). Additional research indicates that changes among these multiple factors may have a significant impact on the recovery rate of seriously mentally ill individuals.

Previous research focused on specific factors contributing to the recovery of consumers such as the importance of clients participating in their recovery and the value of them being able to express their wants, needs and concerns. Other important factors identified included the importance of hope, social support (McGarry, 1992), and consumer recovery networks (Thompson,1989). Previous research focused on specific characteristics or specific programs and while the contributions of the research have been previously acknowledged, there is a need for more systematic long-term assessments of ongoing interventions. What impact will a paradigm shift in the overall mental health system from current practices and approaches to the adoption of a Recovery model have on consumer outcomes? The focus of this research is to examine the impact of system-wide adoption of the Recovery Model and philosophy on the part of the clinicians, the consumers, families and support groups, and within the broader community context in which they live.

Project Description

The Mahoning County Mental Health Board and the Trumbull County Board of Alcohol, Drug and Mental Health received a grant from the Ohio Department of Mental Health to effect a system-wide change in embracing the recovery model as the best practice model of service delivery. They believe implementing a system-wide change to the Recovery Model will involve the current system on several different levels. The system levels to be addressed include primary consumers, secondary consumers, clinicians/therapists and board members at the county and agency levels.

The overarching goal of the two-county program is to empower consumers of mental health services to accept their illness, take control of the management of their illness, and become an active member of their individual communities. The specific goals of the overall program focus on the following nine areas:

1. Employment: To increase the number of consumers who are actively employed.
2. Empowerment: To empower consumers to take an active role in the Recovery Model.
3. Stigma: To develop and implement a comprehensive community-wide plan to reduce current stereotypes concerning mental illness.

4. Peer Support: To develop a consumer support group in each county to offer an appropriate social network to consumers.
5. Family Support: To increase family member involvement as a positive social network for consumers.
6. Community Involvement: To increase the number of appropriate social networks available to consumers.
7. Access to Resources: To develop and implement cross-system training to introduce the Recovery Model.
8. Education: To better educate consumers on their illness and the possible benefits of the Recovery Process.
9. Clinical Roles and Relationships: Key staff at all mental health contracted agencies will receive training and in turn implement the Recovery Model in their respective agencies.
10. Website: To develop a website to highlight and update the implementation of the Recovery Program.

In order to accomplish the above goals, the Boards created a steering committee to oversee and offer feedback to the members on program implementation. The Boards also hired a coordinator to oversee the Recovery Model activities in both counties and to work with individual staff in the individual agencies and the representative boards. The coordinator chairs the steering committee meetings and helps facilitate the activities of the committee. The following has been accomplished thus far through the implementation of the project:

1. Development of a steering committee made up of liaisons from each mental health agency, consumers, family member volunteers and a board member from each county to serve on the committee. The function of the committee was to develop the training curriculum and community education and oversee the implementation of the Recovery Model within the two counties.
2. The committee has planned, set agendas, and developed curricula for conferences and training sessions. Training sessions have been conducted with consumers, family members and the community in general, and are scheduled to be conducted with the county mental health board members and staff and individual agency board members and staff.
3. The Program coordinator targeted consumers to begin education on the Recovery Model. Through the education process, the coordinator identified potential Recovery Model members and consumers who were interested in developing a peer support group.

A consumer driven self-help course is now being offered for consumers in both counties through the B.R.I.D.G.E.S. (Building Recovery of Individual Dreams and Goals Through Education and Support) Program. This 15-week course is taught by consumers of mental health services to consumers of mental health consumers in a friendly supportive atmosphere. Program topics include the following: 1. Emotional Stages of Recovery, 2. Thought and Mood Disorders, 3. Anxiety Disorders, 4. Dual Diagnosis Recovery, 5. Building Support, 6. Biology and Medication, 7. Community Mental Health Services, 8. Recovery and Working, 9. Tools for Recovery, 10. Religion and Spirituality, and 11. Advocacy.

The framework of this research will be to investigate the multiple factors influencing the recovery process of individuals in Trumbull and Mahoning Counties. The research design will specifically address the goals related to empowerment of consumers, impact of peer and family support, and clinical roles and relationships. The major hypothesis of the research is: Consumers of mental health services in Mahoning and Trumbull Counties will demonstrate an increased level of adjustment to their disability, increased

personal competency and independence, and demonstrate increased awareness of their illness, treatment, and individual responsibility for recovery as a result of the implementation of the Recovery Model.

Research Questions

1. Will the development of the planning process of the Recovery Model increase consumers' and secondary family members= involvement and awareness?
2. Will the development of the planning process increase consumer involvement in peer support groups?
3. Will mental health agency Boards of Directors educated in the Recovery Model have increased clinical understanding of treatment within a mental health Recovery Model? Will they identify partnership with the consumer as important?
4. Will clinicians indicate that consumers educated in the Recovery Model have an increased level of functioning?
5. Will consumers educated in the Recovery Model have improved adjustment to their disability?
6. Will consumers involved in the consumer support groups have increased self-esteem, improved self-sufficiency, increased awareness of their illness, treatment, and individual responsibility for recovery?

Measures

An interview packet was developed for use in interviewing consumers and their families made up of the following instruments: (1) The Recovery Attitudes Questionnaire (Borkin et al., in press) was used to develop baseline information and compare participants' attitudes about recovery and the recovery process; the Personal Vision of Recovery Questionnaire (PVRQ) to compare consumers' activities to promote their own recovery (Ensfield, Steffen, Borkin & Schafer, 1999) and to reflect family members' beliefs about the consumers' recovery; the Consumers' Assessment of Psychiatric Symptoms (CoAPS) to compare consumers' reported psychiatric symptoms (Krzton, Steffen, & Borkin, in review) and the Ohio Mental Health Outcomes System Adult Consumer Form A (Ohio Department of Mental Health, 2000), to assess consumers' outcomes.

The seven-item Recovery Attitudes Questionnaire (RAQ-7) will be given to all groups participating, and consumers, family members, clinicians, and board members to compare differing attitudes. The RAQ-7 has been found to be appropriate for use with different groups of people (Borkin et al., in press).

Research Design

The design called for interviewing 110 consumers in each county randomly selected from the mental health providers in each county. Baseline data from the consumer interviews was collected in the summer of 2000. The design also called for 50 percent of consumers' family members being interviewed using the RAQ-16 and Ohio Mental Health Outcomes System Adult Consumer Form A.

Board members from the County Boards and agency boards were surveyed in the fall of 2000. The original design called for follow-up surveys to be conducted after six months and yearly thereafter. This was not possible due to the scheduling of the consumer training and education workshops. Once these were completed, the follow-up interviews were initiated; Trumbull County follow-up consumer interviews were completed in October, and Mahoning County follow-up interviews are still being conducted. In addition, follow-up Board surveys were conducted in October. The purpose of the Board

surveys are to determine if the county and individual agency boards will have an increased awareness and knowledge of the Recovery Model and support its implementation. The consumer surveys indicate whether consumers have increased their knowledge and understanding of the model and have been empowered to take a more active role in their recovery. The family surveys will indicate whether the families understand the model and the clinician surveys are to determine whether the model has a buy in from the system and to assess their perception of consumer progress.

The education and training sessions for clinicians are scheduled for January and February of 2002. The baseline data for clinicians was completed in the summer of 2001. Clinicians were surveyed using the Recovery Attitudes Questionnaire, an Assessment of Clients questionnaire, a staff practices questionnaire along with four open ended questions about their familiarity with the Recovery Model. The expected outcome for clinicians in regards to the Recovery Model is to raise the clinician's level of knowledge and acceptance of the Recovery Model.

We plan to conduct another round of consumer interviews in March and April 2002, along with Board member surveys and family members interviews. The clinicians' follow-up surveys will occur in April of 2002.

To gather qualitative data, a series of focus groups is scheduled to be conducted beginning in January with consumers attending the B.R.I.D.G.E.S. programs; their responses will be compared to consumers living in group homes who are not participating in the educational support group process.

Proposed Data Analysis

A pre- and post-test design will be used to measure the educational independent variable and compare group overall differences using Cronbach's alpha and within-group *t*-tests to determine statistical significance. Data from the consumers who participate in three interviews will be analyzed using a repeated measures 2 (pre-training vs. post-training) x 3 (Time 1 vs. Time 2 vs. Time 3) Analysis of Variance.

To determine degree of change among clinicians as a result of the Recovery Workshop Training, paired *t*-tests will be conducted comparing the mean scores on the measures completed by all participants (Recovery Attitudes Questionnaire, Assessment of Clients Scale, and Assessment of Staff Practices Scale). The peer support group=s independent variable will be analyzed using a pre/post test design and regression analysis.

Qualitative Data

The qualitative date from the support group focus groups and clinician open-ended attitude questions will be analyzed using grounded theory analysis. Recurrent themes identified from these two groups may be used to expand upon the quantitative findings. We added the open-ended questions to identify information of a personal nature that may impact the recovery process.

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IMPACT OF TEACHING MENTAL HEALTH BEST PRACTICES AND RECOVERY PROCESSES ON CONSTITUENT POPULATIONS OF THE MENTAL HEALTH SYSTEM

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The promotion of the concept of recovery in the mental health service delivery system has become a major objective of the Ohio Department of Mental Health, as demonstrated by their support of research on recovery. This current study builds on this prior research as it assesses the impact of the development and implementation of a system-wide training and education project on the recovery and best practices model for the various constituent groups of the Lake County mental health system. This research also examines the impact of a model of partnership of consumers and members of the community (community partners) through a Leadership Class that has the responsibility of development of the education project.

In a study by Murnen and Smolak (1998) that evaluated the impact of the consumer effort at creating a consumer-run drop-in center, the researchers found that the project resulted in increased lay support as well as an increased sense of empowerment for the consumer. It was also found that when the social needs of consumers were filled more by a lay network than by professionals, the consumers experienced more overall support. A report by Roth and associates (1998) of a longitudinal study of mental health services and consumer outcomes indicated that consumers found that their relationships with family and friends were less empowering than their relationships with case managers. This may indicate a need to educate families about some of the principles of recovery. Another finding from this research indicated that consumers had unmet needs for assistance with interpersonal issues. Thus, programming that emphasizes social support is important for recovery.

Johnson and associates (1998) conducted research in Fairfield County on a consumer-controlled network of support and its implications for a model of recovery. A consumer network was created and this network had the goal of developing recovery activities, working collaboratively with the public and helping to build a community identity. As part of the recovery activities the consumer network developed a consumer clubhouse. The research activities examined the organizational development of the consumer network, and evaluated how the consumer network used the recovery model and how the consumers reacted to the organizations efforts. The researcher utilized several measurement tools including observations, focus groups, interviews and surveys. The interviews and the focus groups conducted with community leaders and service providers respectively indicated that both groups were aware of the consumer activities. However, the recovery model was not well understood by service professionals. This suggests that service providers need to be educated about the recovery model. Moreover, during one of the interviews with a community leader, there was a suggestion that consumers need more contact with community leaders (Johnson et al., 1998). This relates to the research outcomes stated above that have indicated the importance of lay networks for support for consumers (Murnen & Smolak, 1998).

With some of the research on recovery and best practices suggesting the importance of a lay

support network for consumers (Johnson et al., 1998; Murnen & Smolak, 1998), it was proposed to build upon this research and assess further how a lay network of community leaders who are educated about recovery can assist in the recovery efforts of consumers.

The research cited above has also indicated that there is a need for education on recovery by mental health providers, and by family members (Tessler & Gamache, 1998) as well as other members of the mental health community. This study will thus assess how education about recovery and best practices can impact on the different constituent groups of the mental health community in Lake County, Ohio. A further objective is to evaluate how all these efforts then impact on the mental health system itself in regards to policies that relate to recovery efforts.

Research Hypotheses

The first six hypotheses (I-VI) for this study center on the consumers who participate in the mentoring and education program focused on recovery (Leadership Class) and whether they will have an increased sense of self esteem, an increased sense of personal support, an increase in participation in the treatment planning process, decreased rates of hospitalization, increased reciprocal peer support, and improved support relationships. Hypothesis IX centers on whether the community members (community partners) who participate in a mentoring and education program focused on recovery (Leadership Class) will have an increased awareness of recovery. Hypotheses VII, VIII and X center on the education program developed and provided by the Leadership Class and whether direct care workers, family members, consumers, policymakers and administrators who are educated about mental health recovery and best practices will indicate a greater awareness of mental health recovery. Hypothesis XI centers on the impact of the above-mentioned efforts on the mental health system and whether education about recovery principles leads to the re-examination of policies and procedures in the mental health system.

Methodology

This study design will utilize both quantitative methods of exploratory non-experimental surveys, and qualitative methods of participatory observation, focus groups, and ethnographic interviews in a staired approach. All participants will be residents living or working in Lake County, Ohio. The various groups that will be studied consist of consumers, family members, direct-care workers, policymakers, administrators and the mental health system itself.

During the first stage the research has focused on the Leadership Class and its participants, consisting of consumers and community members. The research is examining the development of the Leadership Class and the impact of the Leadership Class on its participants. In the second stage the research will continue to focus on the development and impact of the Leadership Class, but the research will also study the impact of the education program about recovery and best practices on the various constituent groups of consumers, family members, direct-care workers, policy makers, and administrators. This research will carry into the third stage as will the research on the Leadership Class. In addition, during the third stage an overall evaluation of the system will focus on the impact of the Leadership Class and the education of the constituent groups on the development of policies and programs in the mental health system.

Sample. The Leadership Class had a pre-test sample of 20 consumers and 16 community partners. Four-fifths (80%) of the consumers are female, and one-fifth (20%) are male with ages ranging from 23 to 69 years of age. Only one consumer (5%) is non-white. The consumer participants are a well-educated group with only one (5%) who is not a high school graduate. One-half (50%) of the consumers

have some college education, with one consumer (5%) having a four-year degree and two (10%) having graduate or professional training. However, regarding employment, only 10 percent of the consumers are employed full-time, and 30 percent are employed part-time. Thus the majority (60%) are not employed.

Regarding the 16 community partners, 69 percent are female and 31 percent are male, with ages ranging from 24 to 74. Only two (13%) are non-white. The community partners are also well-educated group with one-quarter (25%) having some college, 50 percent with a college degree, and 25 percent with graduate or professional training. Regarding employment, 69 percent of the community partners are employed full-time, 12 percent part-time and only 19 percent who are not employed.

Instruments. This study builds on the Ohio Mental Health Outcomes System instruments (Ohio Department of Mental Health, 2000) and on the previous research on recovery conducted under the sponsorship of the Ohio Department of Mental Health. The Outcomes Systems instruments include scales on self-esteem and personal empowerment that were utilized for this study. In addition there are some questions on the Outcomes instruments on support that were included with some additional questions on support that were also added. A scale for participation in treatment was adapted from scales from the Longitudinal Study of Mental Health Services and Consumer Outcomes (Roth et al., 1998). In order to measure awareness of recovery, the Recovery Questionnaire, 21 items (Steffen, & Borkin, 1995) has been included. The Personal Vision of Recovery Questionnaire (Ensfield, Steffen, Schafer, & Borkin, 1998) has also been included in order to assess the consumers in the Leadership Class in their growth in recovery. A Reciprocal Support Scale was also developed by the researchers for use in this research.

For all members of the Leadership Class, pre-test questionnaires were given at the beginning of their experience in the Leadership Class in March, 2001, and a post-test will be given again at the end of 9 months. For the consumer members, the questionnaire includes the scales on self-esteem, personal empowerment, support, participation in treatment, and the two recovery scales. For the non-consumer members (community partners), the questionnaire includes the Recovery Questionnaire, 21 items. The scale on reciprocal support was first pilot tested and then given to the consumers and community partners as a pre-test in July and August, 2001.

Reciprocal Support Scale

The Reciprocal Support Scale (Table 1) was developed for this study as a measure of mutual support. It consists of 14 items in Likert format with responses ranging from “almost always” to “almost never”. Scoring ranges from 14 to 70 with higher scores indicating greater mutual support. The following is a brief account of reliability and validity studies conducted on the scale.

Subjects. The sample for this measurement study included 42 subjects involved in mental health services as consumers or providers of community support and 38 subjects involved in addictions treatment as either a sponsor or recipient of sponsorship ($N = 80$). Approximately half the subjects were males (51%) and half were females (49%). Subjects were also predominantly white (86%), not married (73%), and ranged in age from 39 – 57.

Reliability. Cronbach’s alpha was used to test the reliability of the scale. This test yielded a value of .95, indicating that the scale has excellent internal consistency. The correlations of each item with the total scale are presented as part of Table 2.

Structural and Construct Validity. Also shown in Table 2 are the factor loading results of a principal components factor analysis. This analysis revealed one factor on which all items loaded. Since

the Reciprocal Support Scale was created to be a univariate measure of mutual support, this test supports the structural validity of the scale. A test of construct validity consisted of a correlation of scores on the Reciprocal Support Scale with scores on the self-esteem scale used in previous ODMH sponsored recovery research. Since both reciprocal support and self-esteem are outcome variables in the present study, it was anticipated that there would be a significant relationship between them. The correlation between scores was significant (.28, $p < .05$), thus supporting the validity of the Reciprocal Support Scale. All tests support the reliability and validity of the Reciprocal Support Scale.

Table 1. Reciprocal Support Scale Items

1. I find it easy to communicate my needs to my recovery partner.
2. I value my recovery partner as a person.
3. My recovery partner values me as a person.
4. My recovery partner serves as a role model.
5. I serve as a role model to my recovery partner.
6. I am supportive of my recovery partner.
7. My recovery partner is supportive of me.
8. I trust my recovery partner.
9. I think my recovery partner trusts me.
10. My recovery partner helped me with problem-solving.
11. I helped my recovery partner with problem-solving.
12. We can count on each other for advice.
13. We help each other.
14. We respect each other.

Note. Responses are in a Likert format (1 = almost never, 2 = rarely, 3 = sometimes, 4 = often, 5 = almost always).

Table 2. Item to Total Scale Correlations and Factor Loadings for Each Item of the Reciprocal Support Scale

Item	Item to Total Correlation	Factor Loadings
1	.73	.77
2	.74	.79
3	.80	.84
4	.80	.83
5	.68	.71
6	.73	.78
7	.82	.85
8	.76	.80
9	.73	.78
10	.73	.77
11	.69	.73
12	.78	.81
13	.76	.79
14	.80	.84

Note. Cronbach's alpha = .95

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Chapter Two
Other Funding Sources

EVALUATION OF MENTAL HEALTH SERVICES TO JUVENILE OFFENDERS PROJECT: INITIAL FINDINGS

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From 1989 to 1998, the number of adjudicated delinquency cases resulting in residential placement increased 37 percent to 163,000 cases. During this same period, the number of adjudicated delinquency cases resulting in formal probation increased 73 percent to 366,000 (Puzzanchera, Stahl, Finnegan, Synder, Poole, & Tierney, 2001). These increases require us to not only address the specific behaviors that result in adjudication and sanction, but to understand the underlying causes for such behaviors. Although the prevalence of mental health problems among juvenile delinquents is not well documented (Huizinga & Jakob-Chien, 1998), it has been estimated that, of the youth who come into contact with the juvenile justice system each year, approximately 150,000 meet the diagnostic criteria for a mental disorder and 320,000 meet the criteria for an alcohol/substance abuse disorder (Cocozza, 1992).

In Ohio, a 1997 sampling of 111 males at Scioto Juvenile Correctional Center disclosed that 26 percent of the sample were diagnosed with a mood disorder, 27 percent with PTSD, eight percent with severe ADHD, six percent with schizophrenia and six percent with other mental disorders. It should be noted that Scioto is an Ohio Department of Youth Services (ODYS) facility that houses youth with the most serious mental illnesses (Ohio Task Force on Mental Health Services to Juvenile Offenders, 1998).

Given the paucity of information available on the co-existence of delinquency and mental health problems, it is important to document the prevalence of these problems. Further, the provision of mental health services to this population is essential in order to address the problems that induce or exacerbate the antisocial behaviors. The Ohio Juvenile Offenders Project (JOP) was intended to begin to meet both of these needs.

The JOP represents a two-year effort to identify, describe, and provide mental health treatment to juvenile offenders with significant mental health needs. Long-term follow-up is also planned. Currently, the JOP is in its second year.

Participating Counties

Three sites participated in the project: Cuyahoga County, Lorain County, and a collaborative of Southwest Ohio counties including Hamilton, Warren, Clermont, and Butler Counties. Each site developed its own youth selection criteria and procedure as presented below.

Hamilton County. The juvenile courts in each of the Southwest Collaborative Counties (SWCC) identify youth who meet specific criteria, gather and/or conduct assessments of these youth using the JOP core instruments, and, based on assessment results, refer these youth to one of three programs: ODYS, various community programs, or to the "Bridge" program which is the JOP residential treatment program

for this area of Ohio. Youth who are referred to the Bridge program receive additional assessments and further review in a final assessment of their appropriateness for JOP. Youth who are not accepted into Bridge are referred to other alternative programs or to Juvenile Court. Youth who complete the Bridge portion of JOP are then placed in appropriate community treatment services in their county for additional treatment and follow up.

Lorain County. The Lorain County project flow is similar to that of SWCC in that the juvenile court of Lorain County identifies youth who meet its criteria, gathers and/or conducts assessments on identified youth, and then refers these youths to one of three programs: ODYS, other community programs, or to Bellefaire Jewish Children's Bureau (Bellefaire) for additional psychological assessments. Youth who meet the site's selection criteria are then admitted to Bellefaire, the JOP residential treatment facility for Lorain County. After completion of the residential phase of treatment, youth are referred to Bellefaire's Wraparound program for additional community-based follow-up treatment.

Cuyahoga County. The flow of the Cuyahoga County JOP is somewhat different in that, once youth are assessed through the juvenile court and Catholic Charities Mental Health Services, the decision for placement in the JOP program lies with the juvenile court system. As with the other two sites, the juvenile court in Cuyahoga County identifies youth who meet its criteria; gathers and/or conducts assessments on identified youth; and then refers identified youth to Catholic Charities Mental Health Services for further assessments of mental health status. After review by Catholic Charities Mental Health Services, the information is sent back to juvenile court which then decides to admit youth to one of two programs: the Parmadale JOP residential treatment program or an alternative program. Those youth who complete residential treatment at Parmadale are then connected with Berea Children's Home for community-based Wraparound services.

Instruments

The Ohio Youth Problem, Functioning, and Satisfaction Scales - Short Form (OSSF). The OSSF (Ogles, Melendez, Davis, & Lunnen, 2000) is a recently developed instrument that assesses the domains of youth problem severity (20 items), functioning (20 items), hopefulness (4 items), and satisfaction (4 items) using summated rating scales. Three versions of the instrument are available: a Youth Form, a Parent Form, and an Agency Worker Form. The Youth and Parent Forms of the scale are identical in content, differing only in perspective. The Agency Worker Form contains the Problem Severity and Functioning Scales, but replaces the Hopefulness and Satisfaction scales with the Restrictiveness of Living Environments Scale (ROLES; Hawkins, Almeida, Fabry, & Reitz, 1992).

Items that assess the Problem Severity domain are based on a six-point scale that ranges from 0 to five with higher values indicating greater frequency of occurrence of problem behaviors. Functioning domain items use a five-point scale that ranges from 0 to 4 with higher scores indicating better functioning. Hopefulness and satisfaction items are based on a six-point scale that ranges from 1 to 6 with higher scores indicating less hopefulness/satisfaction. The ROLES scale was not used in this project.

Since the OSSF was derived from a longer form of the Ohio Scales and the long form was found to have generally good reliability, Ogles et al. (2000) did not carry out an extensive assessment of reliability for the OSSF. Instead, internal consistency reliability was obtained only for the problem severity and functioning scales of the Parent and Agency Worker Forms for two samples. Cronbach's alpha was in the high .80s and low .90s for both scales for both samples.

Table 1 presents internal consistency reliability for each scale for each form. Because the number of participating youth in each county is small, reliability is presented for the total sample. As can be seen, internal consistency reliabilities were quite good across forms and scales and were generally consistent with those of Ogles et al. (2000).

Table 1. Scale Reliabilities for OSSF

Form	Problem Severity	Functioning	Hopefulness	Satisfaction
Youth Form (n = 36)	.92 (n = 28)	.93 (n = 25)	.76 (n = 28)	.87 (n = 26)
Parent Form (n = 36)	.93 (n = 27)	.89 (n = 20)	.86 (n = 26)	.79 (n = 24)
Worker Form (n = 36)	.89 (n = 34)	.93 (n = 27)		

Note. OSSF = Ohio Youth Problem, Functioning, and Satisfaction Scales – Short Form

Youth Level of Service Inventory. The Youth Level of Service Inventory (YLSI) is a 42-item instrument that covers the domains of Delinquent History (5 items), Family/Parenting (6 items), Education/Employment (7 items), Peer Relations (4 items), Substance Use (5 items), Leisure/Recreation (3 items), Personality/Behavior (7 items), and Attitudes/Orientation (5 items). Each item is scored on a dichotomous scale of present (1) or absent (0). The scores for the items of a domain are then summed.

An additional 39 items provide information on youth problems (27 items) and family history (11 items) as well assess the respondent's overall perception of risk for the targeted youth. Although these items are also scored as present (1) or absent (0), they are more qualitative in nature and do not form a summative scale. Rather, they simply indicate the presence or absence of such things as parental marital problems, abusive parents, youth health problems, etc., thus, providing a context within which to understand the summative scores from the eight summative scales.

Reliability analysis of a previous version of the instrument produced coefficient alphas that ranged from a low of .59 for Delinquent History to a high of .82 for a Personality/Skill (Hodges & Andrews, 1966). The overall scale score resulted a coefficient alpha of .93. For this study, reliability was not as good. For the primary domains, coefficient alphas ranged from a low of .17 for Leisure, to a high of .70 for Substance Use with alphas for most scales in the .40s and .50s. These values indicate a low degree of internal consistency variability within most domains. However, the overall coefficient alpha was good, .85.

Disposition Investigation Report. The Disposition Investigation Report (DIR) is a multiple page form that is used by the Ohio Department of Youth Services to collect information on youthful offenders. When fully filled out, it provides for over 600 pieces of information that cover the topics of Demographics, Committing Offense Information, Victim Information, Court History, Family Members and Family Information, Youth Information, Religion, School and Employment History, Mental Retardation/Developmental Delay Issues, Mental Health Issues, Medical Information, Alcohol and Drug History, Personal/Social Information, Post-Disposition Information, Prior Court Referrals, and Victim Impact Information. The form represents an attempt to standardize both what and how information is collected on youthful offenders. As such, it uses a semi-structured interview format. Approximately 40 percent of the items are presented as check boxes. The remaining items presented in open-ended format. No reliability or validity data are available for this instrument.

Results

Since its inception, 36 youth have participated in the project: 12 from Cuyahoga County, 14 from SWCC, and 10 from Lorain County. Ten of these youth have completed the residential phase of treatment and have moved to less restrictive community or home settings. Two turned 18 while participating in the project, and were remanded to the Ohio Department of Rehabilitation and Corrections. One was remanded to ODYS. Because the number of participating youth from each of the three sites is small, results that follow are reported overall.

Participating youth were generally male (86%) and either Caucasian (56%), African American (35%), or Hispanic (9%). (Percentages and/or frequencies may not add up to 100% or 36 due to either rounding or missing data.) The youths' age at admission ranged from less than 12 to over 18. The average age was 15.6 years with a median age of 16 and a modal age of 16.4. These youth had from one to four cases pending against them with from one to three charges per case. The charges associated with the most recent case brought against these youth can be classed primarily as assault/endangering (felonious assault, aggravated assault, assault, domestic violence, criminal damaging/endangering), vandalism (vandalism, burglary, criminal damaging/endangering), or theft (burglary, theft, receiving stolen property). Offense levels for these charges ranged from F5 to F2 felonies, though M1 and MU misdemeanors also occurred.

Although available information indicated that 14 (61%) of participating youth had a single case pending against them, a number of youth demonstrated significant offense histories. Fourteen youth had three or more prior adjudications and/or prior probations. Eight had failed to comply with probation. Sixteen had been in detention. For any particular youth, these consequences tended to co-occur. Youth who had three or more adjudications also demonstrated prior probations, failure to comply with probation, and prior detentions.

Participating youth also demonstrated significant psychological dysfunction as reflected in primary Axis I diagnoses based on the Diagnostic and Statistical Manual of Mental Disorders (DSM IV; American Psychiatric Association, 2000). These diagnoses can be categorized as primarily mood and anxiety disorders (Major Depressive Disorder, Bipolar Disorder, Dysthymia, Cyclothymia, PTSD) and disruptive behavior disorders (Conduct Disorder, Oppositional Defiant Disorder, Attention Deficit/Hyperactivity Disorder). Psychotic disorders also occurred, but were not common. Finally, substance-related disorders did not occur as the primary diagnosis as often as might be expected. Additional Axis I diagnoses were indicated for most youth, these diagnoses most often involving disruptive behavior and substance-related disorders. The occurrence of multiple diagnoses for most youth suggests significant psychological impairment.

The seriousness of offenses committed by these youth and the significant degree of psychological dysfunction they demonstrate is reflected in caseworkers', mental health workers', and parents' ratings of the youth's functioning. The average Global Assessment of Functioning (American Psychiatric Association, 2000) score for these youth was 53, indicating either moderate symptoms, such as flat affect, circumstantial speech, or occasional panic attacks, or moderate difficulty in social, legal, or school functioning. Caseworkers' mean LSI total score was 26.5, indicating a high degree of risk for anti-social activity. Mean Ohio Scales Problem Severity and Functioning scale scores obtained from parents, caseworkers, and mental health workers all indicated high degrees of dysfunction. For the Problem Severity scale, the parents' mean score was 39.92 whereas the case and mental health workers' mean score was 37.00. For the Functioning scale, the parents' mean score was 39.42 whereas the case and mental health workers' mean score was 35.89. Both sets of scores reflect a high level of agreement and are consistent with scores Ogles et al. (2000) obtained for a sample of youth receiving mental health services.

Interestingly, the youths' mean Problem Severity and Functioning scale scores were 16.68 and 54.56, respectively, indicating that they saw themselves as having few problems and functioning well.

Discussion

As noted previously, the prevalence of mental health problems among juvenile offenders is not well documented (Huizinga & Jakob-Chien, 1998). The JOP adds to this body of knowledge by documenting the co-occurrence of psychological dysfunction and offending. It also moves the field forward in that, not only are psychologically disturbed youthful offenders identified and described, they are also provided treatment--treatment that they would not normally receive were they housed in the general ODYS population.

Because JOP is just beginning its second year, we are not yet able to address such questions as, "Does treatment impact recidivism?" or "Does treatment package A differ in effectiveness from treatment package B?" Long-term follow-up of JOP youths may begin to provide some answers to these and other significant questions. However, as is almost always the case, more research will be needed before definitive answers can be reached.

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WEIGHT GAIN, DIABETES MELLITUS AND THE USE OF ATYPICAL ANTIPSYCHOTIC MEDICATIONS IN THE TREATMENT OF SCHIZOPHRENIA

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In recent years, we have had a rush of new drugs available in clinical practice--such as clozapine, risperidone, olanzapine, and quetiapine--for the treatment of schizophrenia. Undoubtedly, these new "atypical" antipsychotic medications are efficacious and as a "class" they possess a lower liability (than older or conventional drugs) for extrapyramidal side effects (EPSs) (Tamminga, 1997). These characteristics have been well established in carefully conducted, placebo-controlled, short-term clinical trials (Kane, Honigfeld, Singer & Meltzer, 1988; Marder & Meibach, 1994; Arvantis et al., 1997; Tollefson et al., 1997). The recent practice of conducting large, systematic clinical trials rather than several smaller trials in succession has shortened the preapproval period and has brought these newer drugs promptly to market. While this approach provides new options and optimism for patients and relatives, a perhaps unappreciated consequence of this rapid development is that we are presently uniformed on many critical issues of drug use in clinical practice. Examples include appropriate dosing regimens, adequacy of treatment trials, and the relative efficacy of each new drug. This dissonance between knowledge from clinical trials and the accumulating wisdom from clinical practice is most pronounced for the adverse effects with these newer drugs.

Clinicians are now focusing on concerns of weight gain, drug-induced glucose imbalance, and other emerging metabolic effects. These adverse endocrine and metabolic effects are of primary concern, in part because of the rapid availability of these new drugs and also because of the pace at which the older drugs have been replaced. Consequently, there is a disconcerting shortfall between the occurrence of neuroleptic-induced endocrine and metabolic dysfunction and our current knowledge and capacity to manage these effects.

We have conducted two separate retrospective studies, one examining weight gain in patients beginning treatment with an atypical antipsychotic medication, and the other assessing onset of diabetes mellitus (DM) in patients receiving an atypical drug.

Weight Gain

Because obesity is of such high prevalence worldwide (15-20% in western European countries; 30% in the USA) and is associated with serious and interrelated physical comorbidity, it is acknowledged to be one of the most expensive aspects of health costs (National Institutes of Health, 1998; World Health Organization, 1998). This issue is of particular significance for patients with schizophrenia since they are already a population at high risk for cardiovascular and gastrointestinal disorders and tumors. Several studies show that persons with schizophrenia are more likely than the general population to die from cardiovascular disorders (Jeste, Galdsjo, Lindamer & Lacro,1996; Harris & Barraclough, 1998). Moreover, patients frequently receive care in settings that have inadequate access to the full spectrum of

medical resources. Collectively, these factors suggest that obesity in patients with chronic schizophrenia could pose substantial clinical management concerns and could put patients at risk for long-term physical illness.

Weight gain with antipsychotic medications is not a new phenomenon, as it has been documented for almost all of the conventional antipsychotic medications. However, despite the extent of weight gain observed with the older drugs, clinicians paid relatively little attention to this issue until the arrival of clozapine and, thereafter, the other atypical antipsychotic medications.

Clozapine. Soon after the introduction of clozapine, it was observed that it may cause dramatic and often sustained weight gain in a substantial minority of patients (Naber, Leppig, Grohmann & Hippius, 1989; Leadbetter et al., 1992; Lamberti, Bellnier & Schwarzkopf., 1992). Among all antipsychotic medications, clozapine is most likely to cause weight gain (Stanton, 1995; Young, Bowers & Mazure, 1998). Several studies, mostly retrospective in design or examining only a short period of treatment, confirm the occurrence of significant weight gain in approximately 13-23 percent of patients receiving clozapine (Leadbetter et al., 1992; Lamberti et al., 1992; Bustillo, Buchanan, Irish & Breier,1996; Marinkovic et al., 1994).

Olanzapine. Olanzapine also causes weight gain. In the pivotal multicenter trial of olanzapine versus haloperidol, significantly greater weight gain (1.88 kg. vs. 0.03 kg.) occurred with olanzapine (Tollefson et al., 1997). Because this drug is widely prescribed by clinicians, the occurrence of weight gain with olanzapine is of clinical significance.

Risperidone. Risperidone is also associated with weight gain, although this appears to be less than with either clozapine or olanzapine (Penn, Martini & Radka, 1996; Breier et al., 1999; Tran et al., 1997). In an eight week comparative study of risperidone (mean dose of 6.4 mg. daily) versus clozapine (291.2 mg. daily), the increase in weight was significant for clozapine (2.7 kg.) but not for risperidone (1.1 kg.) (Breier et al., 1999).

Quetiapine. Quetiapine is also associated with weight gain. In a pivotal trial of quetiapine versus haloperidol, a seven percent increase from baseline weight was observed in 11-17 percent of quetiapine-treated patients, in four percent of haloperidol-treated patients, and in six percent of patients receiving placebo (Arvantis et al., 1997). Because this drug has only recently come into clinical use, there are insufficient data on weight gain during maintenance therapy with quetiapine.

Evaluation of Weight Gain

In this retrospective study, we reviewed the medical records of inpatients at the Northcoast Behavioral Healthcare Northfield Campus who began treatment with an atypical antipsychotic medication (clozapine, risperidone, olanzapine, quetiapine) between August 1997 and May 1999 (n = 136). Patients having a previous course of atypical antipsychotic treatment were included. Baseline weight measurements (taken within the month prior to start of treatment), along with serial weights obtained over the first six months of treatment were collected, along with pre- and post-treatment laboratory indices. Body Mass Index (BMI) was calculated (BMI is defined as weight [in kilograms] /height [in meters] squared). Information on antipsychotic dose and concomitant medications was obtained. Risk factors for weight-related medical conditions, e.g., a personal or family history of high blood pressure, cardiovascular disease, DM, and high cholesterol, and patient smoking history were also assessed.

Our preliminary analysis included only patients who did not receive concurrent antipsychotic medications with the atypical antipsychotic (n = 75). This sample included 55 males (baseline BMI = 26.8 ± 0.7) and 20 females (baseline BMI = 30.2 ± 1.3) (a BMI of 25.0 - 29.9 is considered overweight). A more detailed analysis focused on the males in this group (clozapine, n = 14; risperdone, n = 14; olanzapine, n = 18; quetiapine, n = 9). Weight gain was observed with each of the atypical antipsychotic drugs (see Figures 1 and 2). For Month 1, there was an inverse relationship with age (r = -0.35, p = 0.008), indicating that weight gain was maximal for patients aged 20 through 40 (see Figure 3).

Figure 1. Body mass index changes: all drugs.

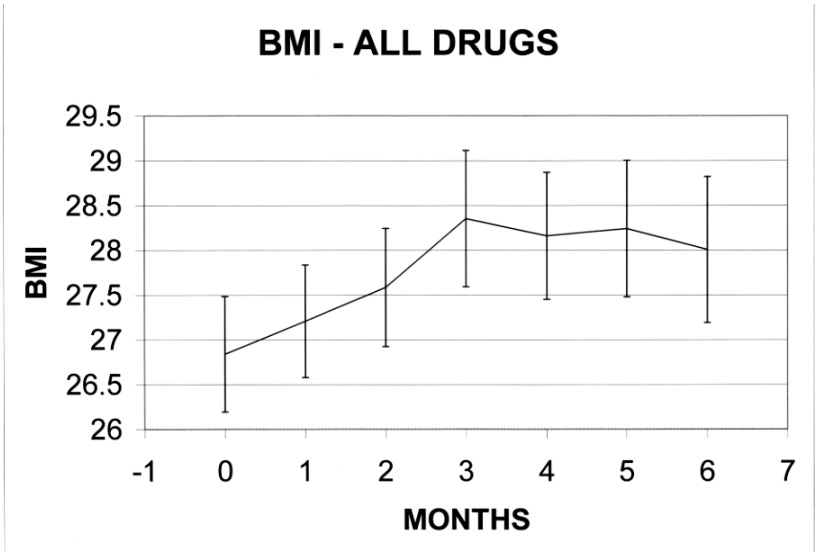
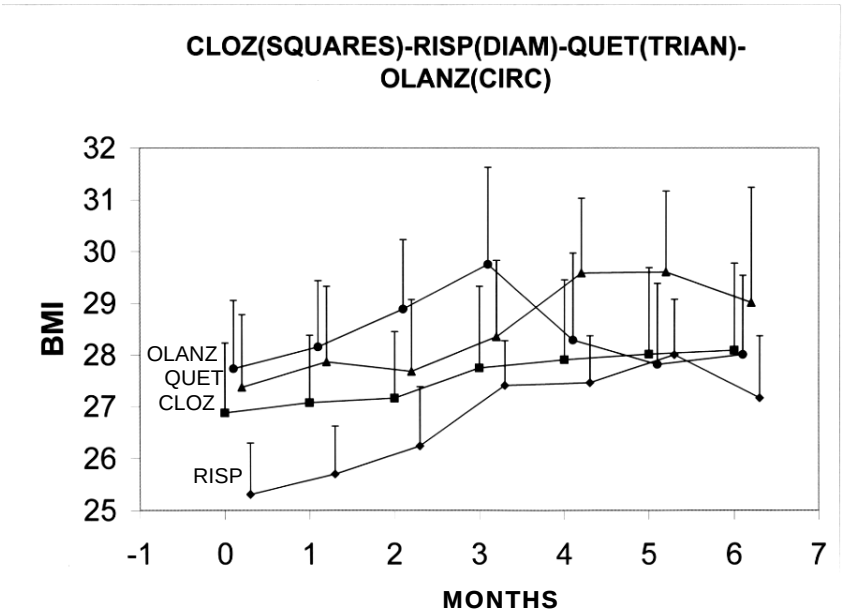
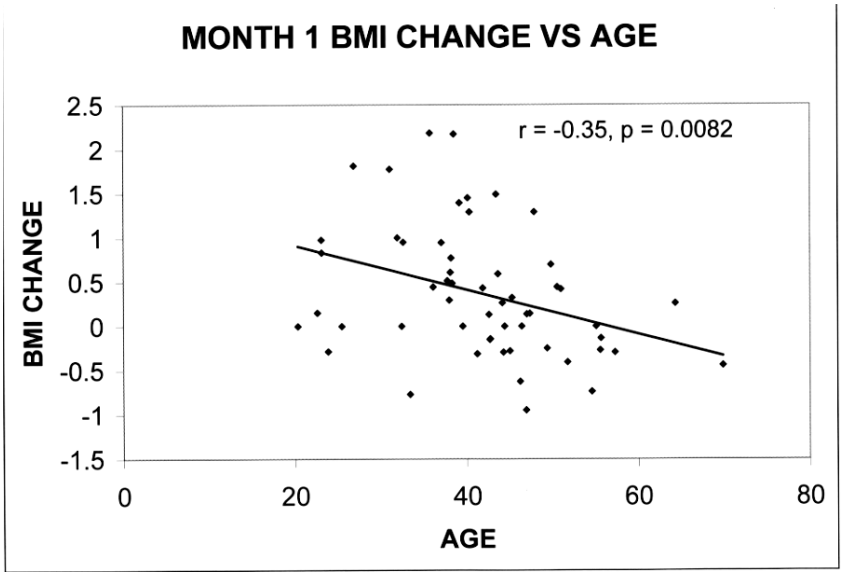


Figure 2. Body mass index changes by atypical antipsychotic.



Note: RISP = risperidone; CLOZ = Clozapine; QUET = quetiapine; OLANZ = olanzapine.

Figure 3. Month 1 body mass index changes versus age.



There were significant group differences in BMI change at Month 3 only, with clozapine less than olanzapine, $p = 0.03$; quetiapine less than olanzapine, $p = 0.018$; and quetiapine less than risperidone, $p = 0.06$. For 45 patients with a known pre-atypical medication history, those who had previously received a typical antipsychotic gained more weight (BMI change 1.69) than patients who had received an atypical drug (BMI change 0.36), $p = 0.0169$.

One important and unappreciated factor in consideration of the evidence of weight gain is the amount of polypharmacy in the long-term care of individuals who receive atypical antipsychotic medications. Cross-sectional studies suggest polypharmacy rates of 50 percent, with mood stabilizers (lithium, valproic acid) most commonly used in combination with an antipsychotic (Dugan et al., 1999; Remington, Shammi & Sethma, 1999). Weight gain is a known side-effect of lithium therapy and substantial weight gain can occur during maintenance therapy (Schou, 1989). Valproic acid is also associated with weight gain during both short-term and maintenance therapy (Bowden et al., 1994). Moreover, some clinicians are combining atypical antipsychotic medications in an effort to augment treatment response; it is likely that patients would gain more weight on this regimen than on monotherapy with an atypical drug.

The mechanism or mechanisms of weight gain during antipsychotic therapy are presently unknown. It is likely that the effect is related to the complex receptor pharmacology of these drugs. The effect may be related to the serotonergic or the antihistaminergic properties of these drugs (Richelson, 1999; Stahl, 1998). It has also been shown that alterations in leptin, a lipid carrier in the blood, may be associated with weight gain with the atypical medications (Kraus et al., 1999). Simple explanations such as increased appetite or dietary change are unlikely to account for the weight gain.

Weight gain with the atypical antipsychotic medications is of critical research importance, particularly in view of the current lack of understanding and availability of effective treatments for weight gain. It will also be critical to evaluate the long-term consequences of weight gain for patients with schizophrenia who are already at heightened risk for physical (notably cardiovascular) comorbidity.

Alterations in Glucose Metabolism

In contrast to the noticeable weight gain with clozapine and other atypical antipsychotic medications, the adverse effect of hyperglycemia with these new drugs was essentially unanticipated. Moreover, this condition often presents as a sudden onset of diabetes mellitus (Koval, Rames & Christie, 1994; Peterson & Byrd, 1996). It should also be noted that this is occurring in the context of clinical and epidemiological studies that show a higher prevalence of DM in those with schizophrenia (Mukherjee et al., 1996; Wright & Murray, 1996).

There are now several reports of patients who developed DM during clozapine or olanzapine therapy (Koval et al., 1994; Peterson & Byrd, 1996; Wirshing et al., 1998; Fertig, Brooks, Shelton & English, 1998; Ober, Hudak & Rusterholtz, 1999). This effect (which is infrequent) has not, as yet, been reported for the other atypical antipsychotic drugs. Often, but not invariably, there is a family history of DM among these patients (Popli et al., 1997; Wirshing et al., 1998). Sometimes the patient is being treated with other agents (e.g., diuretics, steroids), which can themselves induce DM (Popli et al., 1997).

The mechanism(s) of impaired glucose tolerance and DM with the atypicals is unknown. It may be through suppression of insulin release from the pancreas which may result from the effects of these drugs on serotonin or noradrenergic systems. It is also important to note that obesity can lead to DM by several mechanisms, including increased glucose load and decreased cell sensitivity to insulin. The prevalence and significance of this adverse effect in patients receiving atypical antipsychotics is still unclear. However, this issue deserves closer attention and may require a reappraisal of preventative and laboratory investigations.

Evaluation of Diabetes Mellitus

In this retrospective study at the Northcoast Behavioral Healthcare Northfield Campus, we reviewed the medical records from July 1992 to May 1999 of all inpatients with an Axis III diagnosis of diabetes mellitus (n = 56). Thirty-four of the 56 patients had received treatment with an atypical antipsychotic medication (clozapine, risperidone, olanzapine, or quetiapine); 22 had received treatment with a conventional antipsychotic. Of the 34 patients treated with atypical drugs, 11 had DM onset while taking atypicals, while the other 23 patients had onset of DM prior to the use of an atypical antipsychotic drug. Diabetes onset was observed during treatment with each atypical antipsychotic: clozapine (n = 4), approximate onset from three to nine months after start of treatment; risperidone (n = 4), approximate onset from 3 weeks to 11 months after start; quetiapine (n = 1), approximate onset 6.5 months after start; olanzapine (n = 2), approximate onset from eight to 10 months after start of treatment. Of those patients with onset of DM while receiving an atypical antipsychotic, all developed non-insulin dependent DM (mean average age of onset was 49.5 years).

Discussion

The greater propensity of atypical antipsychotics to cause weight gain and glucose dysregulation contrasts with the greater liability for EPS and tardive dyskinesia from the typical antipsychotics. Broadly speaking, however, the endocrine and metabolic effects of atypicals are not new; but they are of greater magnitude and clinical significance. Indeed, in the current era of speculation as to the relative efficacy between the atypicals, choice of medication may be as much influenced by side effect profile as by efficacy. With regard to endocrine and metabolic effects, the relative occurrence of these adverse effects between each atypical antipsychotic, their relationship (if any) to dose and to plasma levels, and their long-term clinical impact remain to be determined. Providing answers to these questions,

delineating the mechanisms of these adverse effects, and developing effective management strategies is likely to be a focus of intensive research efforts over the coming years.

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Paper Presentations of the Research to Date

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THE EVOLVING USE OF ATYPICAL ANTIPSYCHOTIC MEDICATIONS

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This is a period of rapid change in the pharmacotherapy of schizophrenia, as evidenced by the progressive replacement of conventional antipsychotic medications by atypical antipsychotics as the drugs of choice for first-episode and maintenance therapy (Kane, 1999). The favorably low extrapyramidal side effects (EPS) and tardive dyskinesia (TD) profile, as well as a broad range of efficacy, suggest that atypical antipsychotic medications could offer important therapeutic advantages in treating conditions and age groups extending beyond their initial regulatory indications. This is most relevant to the treatment of mood disorders. Psychotic features are frequently observed in affective disorder (estimates vary, but conservatively, psychotic symptoms are present in 40% of manic patients) and there is a historical pattern (particularly in European practice) of using typical antipsychotic medications for acute mood stabilization and also for those patients for whom other treatments are not effective (Keck & Licht, 2000). Similar circumstances and clinical advantages pertain to the use of atypical antipsychotics to treat behavioral disturbance in dementia patients wherein agitation and aggression are effectively reduced with low doses of these agents (Palmer, Heaton & Jeste, 1999). More recently, preliminary data has appeared on atypical antipsychotic use in the management of personality disorders, a circumstance where heretofore the typical antipsychotics were poorly tolerated due to EPS (Schulz & Camlin, 1999). This advantage of low EPS with atypical antipsychotics is most pronounced in several neuropsychiatric conditions where antipsychotic medications are indicated to treat emergent psychosis (Parkinson Study Group, 1999). To address this burgeoning interest in the evolving clinical profile of atypical antipsychotic medications in a manner complementary to these early studies, this study examined the perceptions and actual clinical experience among psychiatrists in two American states.

Methods

A 12-item questionnaire was mailed in March and April 1999 to American Psychiatric Association member psychiatrists in Iowa and Ohio. These two states were chosen because the authors worked in either Ohio or Iowa. The questionnaire was a combination of multiple choice, yes or no, and open ended questions constructed to cover four broad areas: clinical site of practice and actual use of atypical antipsychotic drugs (clozapine, risperidone, olanzapine, quetiapine), the perceived indications for treatment across a variety of non-psychotic conditions and target symptoms, actual experience with atypicals in these circumstances, and perceived drawbacks to the broader use of atypical antipsychotic medications.

Perceptions and prescribing practices were subsequently compared between child and adult specialist psychiatrists, and between those practicing in private versus public settings.

Results

Two hundred eighty-four of the 931 surveys sent were returned (response rate 30.5%). Among the 284 respondents, 97 percent had used risperidone, 93 percent olanzapine, 71 percent quetiapine and 66 percent clozapine in their clinical practice; an overwhelming majority (96%) favored atypical antipsychotics as first-line treatments for schizophrenia. For patients with bipolar disorder or depression whose condition necessitated use of antipsychotic medications, one-half of the physicians (50% for bipolar, 47% for depression) reported that at least 50 percent of this patient group in their practice were receiving atypical (as opposed to typical) antipsychotics. Additionally, respondents considered atypicals to be of therapeutic advantage and had actual clinical experience with their use in a broad range of conditions including dementia (80% of respondents), autism (40%), developmental delay or mental retardation (65%), and personality disorders (69%). Clinicians reported using these drugs to target specific symptoms or behaviors such as aggression (77%), suicidality (43%), and substance abuse (24%). The percentage of psychiatrists who had used risperidone, olanzapine or quetiapine was comparable between child and adult specialists and between community based and private psychiatrists. However, the use of clozapine was less among child (versus adult) psychiatrists (37.0 vs. 68.9) and private-based psychiatrists (55.5 vs. 72.6) (p = 0.002; p = 0.021, respectively). Reported barriers to extended use of atypicals clustered into three broad groups: side effects (weight gain, hyperglycemia, and sedation were cited as the major drawbacks); cost or lack of access (prescription cost, inequitable availability, and noncompliance); and efficacy or limited formulation (uncertainty regarding appropriate dosing, lack of data on long-term use, and the present lack of intramuscular preparations).

Discussion

In the U.S., clozapine is approved by the Food and Drug Administration (FDA) for the treatment of severe schizophrenia and for patients with schizophrenia who are intolerant of the adverse effects of other antipsychotic medications. The FDA-approved indication for each of the subsequent atypical antipsychoic drugs--risperidone, olanzapine, and quetiapine--is substantially broader than for clozapine and these agents are licensed for treatment of the manifestations of psychosis with, more recently, olanzapine receiving an extended indication for the treatment of mood disorders. Moreover, clinicians are using these drugs widely in practice. Atypical antipsychotic medications are commonly used in mood disorders (Keck & Licht, 2000). In one recent comparative study of olanzapine versus placebo in the acute management of manic patients, 50 percent of olanzapine-treated patients showed clinically significant improvement within three weeks (Tohen et al., 1999).

The term “antipsychotic” suggests these drugs are used solely for the purpose of relieving psychotic phenomena. While the atypical antipsychotics reduce the intensity of psychotic experiences, preliminary data and clinical experience also suggest a broader role, beyond treating psychosis, that encompasses the original concept of “tranquilization” (by way of calming effects on mood, anxiety, and agitation). In particular, atypical antipsychotics are increasingly used in conditions where disturbances of affectivity and agitation predominate. There is early research to lend some support to this practice (Keck & Licht, 2000; Palmer, Heaton & Jeste, 1999; McDougle et al., 1998; Buckley, 1999). There is also evidence from studies of patients with schizophrenia who have persistent aggression that the atypical antipsychotic medications are effective for managing aggression in psychosis (Buckley, 1999). The magnitude and consistency of this effect raises the possibility that this may occur not only through amelioration of psychosis but also, more speculatively, that these agents may have a selective antiaggressive effect. The observations from this study and the evolving literature on the use of these drugs for behavioral disturbance in nonpsychotic conditions buttress this assertion (Schulz & Camlin, 1999; Parkinson Study Group, 1999; Tohen et al., 1999; McDougle et al., 1998), although it is clear that

more focused research is required to adequately test this intriguing hypothesis. This line of enquiry will be advanced by the greater use of atypical antipsycotics in acute settings and also by the availability of intramuscular preparations. Such developments are well in progress (Currier & Simpson, 1999).

This study has limitations inherent to survey methodology. Only a modest proportion of psychiatrists returned surveys and thus the generalizability of these results should be approached with caution. Moreover, we did not include any questions related to the use of typical antipsychotic medications. This information would be useful in evaluating the comparative use of typical versus atypical antipsychotic medications in non psychotic disorders. Notwithstanding these caveats, the data from the current study suggest that prescribing practices have advanced rapidly and to an extent that outstrips the current evidence base. There is a need to determine in clinical trials the risk-benefit ratio for each atypical antipsychotic medication in these circumstances and also to compare their efficacy with that of existing therapeutic options for nonpsychotic conditions. Also, the concerns of clinicians exemplified here complement other recent observations on the emergence of a new adverse effect profile associated with atypicals in the pharmacologic management of schizophrenia (Allison et al., 1999).

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ASSESSMENT AND TREATMENT FOR THE CHILDREN OF PARENTS/RELATIVES WITH SERIOUS MENTAL ILLNESS

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Many hospitalized psychiatric patients are parents of children under the age of 18 years. A 1994 study in Cook County, Illinois indicated that five percent of 15,000 cases diagnosed with serious mental illness (SMI) had a head of household who had been hospitalized in a state facility. Despite the high proportion of children involved, treatment facilities often do not take into account the effect of the hospitalization, and resulting separation, on patients and their children. For example, DeChillo, Matorin, and Hallahan (1987) demonstrated that demographic information referring to patients paid little attention to whether the patients had children. The impact of such an abrupt change in the family system of children has yet to be empirically investigated. Instead, research with children of parents with SMI has taken a more broad-band approach, looking at relative vulnerability and risk factors for illness based on the presence or absence or SMI in one or both parents (see for example, Anthony, 1974; Anthony & Cohler, 1987; Feldman, Stiffman, & Jung, 1987). In general, many children of individuals with mental illness have been benignly overlooked during the parents' psychiatric crisis.

Lack of services for children whose parents suffer SMI is problematic on a number of levels. First, decades of research have consistently identified increased risk of developing a psychiatric illness for children who have a mentally ill parent (Feldman, Stiffman & Jung, 1987). For example, LaRoche (1989) and Downey and Coyne (1990) in separate reviews concluded that children of parents diagnosed with depressive disorders are at specific risk to develop clinical depression. Youngsters are also at risk to develop a psychiatric illness due to family disturbance that accompanies the illness (Feldman et al., 1987). A parent's illness-related behaviors may also disrupt their children's social networks and foster ineffective problem solving skills (Pellegirni et al., 1986).

A second, related concern is that children with mentally ill parents are also at greater risk to display a range of nonspecific adjustment problems. Downey and Coyne (1990) reported that school-age children of depressed parents are more likely to show higher levels of externalizing and internalizing symptoms. In a study of 306 "at risk" children, roughly half of the children assessed with the Child Behavior Checklist obtained scores suggestive of emotional and behavior problems (Feldman et al., 1987).

Finally, parents with mental illness generally want professionals to develop methods to evaluate and intervene on behalf of their children (Wang & Goldschmidt, 1996). In a similar vein, the most recent report of the Surgeon General (1999) identified children at risk for developing mental illness as a priority for mental health research. Intervention-oriented research that focused on reducing risk factors or enhancing protective factors was strongly encouraged (see also Marsh, 2001; Marsh & Dickens, 1997). Of particular importance are prevention programs that provided age-appropriate information about the nature of the parent's mental illness (Silverman, 1989).

A program offering this type of service, entitled BART's Place, is a specially designed intervention for children and teenagers who have adult family members who are hospitalized due to a serious mental illness (Katz, Gintoli, & Buckley, 2001). BART is an acronym for Bringing All Relatives Together. The BART's Place program has operated under the auspices of Northcoast Behavioral Healthcare Cleveland Campus since 1995. The program was developed to redress the lack of services for children whose parents were hospitalized.

Program Description

Physically, BART's Place is a family-friendly playroom located on the ground floor of the hospital, away from the units. At the point of admission, patients who have children, grandchildren, or siblings under the age of 18 are referred to the BART Psychologist who completes an initial assessment and, with the patient's permission, contacts the caretakers of the children. The caretaker is interviewed, usually by telephone, to gather information about the child's understanding of the family member's hospitalization and what they have or have not been told.

When the patient is considered stabilized, a family session is arranged and the patient is both supported and encouraged to explain symptoms, diagnosis, and treatment to the children in age appropriate terms. All sessions are supervised and facilitated by the psychologist. Children are encouraged to express their concerns and their feelings. Polaroid pictures of patients and children are taken to bring home and to stay at the hospital.

Demographic information pertaining to the use of BART's Place has been compiled over several years. The following trends were identified: 1.) Those who use the services are roughly 70 percent female and 30 percent male patient-parents; 2.) Children generally ranged in age from under one year to age 16; 3.) Between 70-100 families are served per year with one half-time psychology staff. The primary diagnoses of parents who use the BART intervention are Schizophrenia (31%), Major Depression (17%), Personality Disorder and Substance Abuse (17%), Schizoaffective Disorder (15%), and Bipolar Disorder (10%).

Study Overview

This study evaluates children who are identified for a BART's Place visit during the time of their parent's hospitalization. The aim of this research is twofold: 1) to identify the clinical characteristics of children whose parents are hospitalized for a psychiatric crisis and 2) to evaluate the effectiveness of the BART's Place intervention. Specifically, children will be evaluated to determine the extent to which the intervention helped them to learn accurate information about their parent's illness. In addition, children will be assessed to determine if and to what extent the intervention facilitated an improvement in their emotional response to their parent's illness and hospitalization.

This is a prospective, naturalistic study that is both descriptive and focused on treatment outcome. The descriptive aspect of the study involves a standardized assessment of the clinical presentation of the children whose parents are hospitalized. The outcome measure is implemented following a pre-post test design in which children are assessed prior to and directly after the intervention.

Hypotheses

1. Children of parents who are psychiatrically hospitalized will score higher on measures of clinical distress relative to normative populations.

2. Children will show improvements in emotional status (i.e., less distress) and they will demonstrate improvements in their understanding of their parents' illness.

Methods

Patients who are parents of minor children, and who are recommended for the BART's Place intervention, are recruited for the study. Only children ages seven-17 are recruited for the study. Background and demographic information is collected.

In the pre-test phase of the study, the child participants complete the Children's Depression Inventory (CDI; Kovacs, 1992), the Multidimensional Anxiety Scale for Children (MASC; March, 1997), and an outcome measure (BART Introduction Interview) specifically designed to obtain information relevant to the intervention provided by the BART's Place program. The parent-patient also completes a brief survey of motivation and treatment compliance (Treatment Attitudes Survey). The child and parent-patient are then involved in a family session that is facilitated by the BART's Place staff psychologist.

Following the intervention, the child completes the post-intervention outcome measure (BART Exit Interview) that parallels the pre-intervention measure. The parent-patient also completes the Treatment Attitude Survey one or two days following the intervention.

Preliminary Results

To date, twelve children of parent-patients have been evaluated using the BART Interviews. Only six have received the CDI and MASC, due to time constraints. There are too few participants to analyze the pre-post data. However, patients and their children have given favorable global ratings to the BART's Place intervention. Ten out of twelve children responded to the survey item "How helpful was this visit" with a rating of 4 or 5 with a rating of 5 ("very much") as the highest possible score. Similarly, most patient-parents have endorsed high levels of satisfaction with the intervention.

Conclusions and Significance

The preliminary data regarding patient satisfaction with BART's Place are consistent with previous consumer satisfaction data collected as part of routine performance improvement evaluations. It is hoped that data from the CDI and MASC will help to establish a baseline of clinical features associated with children whose parents are hospitalized for a psychiatric crisis. This information can be helpful in understanding the acute effects of parental psychiatric crisis on children and to guide treatment interventions. In addition, examination of the outcome data will aid the process of identifying those clinical variables which promote a positive adjustment to the family crisis.

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CLIENT EMPOWERMENT AND EMPLOYMENT ISSUES IN CASE MANAGEMENT PRACTICE: RESULTS FROM THE CASE MANAGEMENT STUDY

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Given the pivotal role of case management in the provision of services to adults with severe mental illness, much attention is currently being focused on the variations in how case managers fulfill their role responsibilities and the factors that are associated with these variations. Of particular concern to many service providers, client advocates, and policymakers is the utilization of practices that support clients while fostering independence and promoting recovery. Discussion about the nature of such efforts increasingly encompasses two particularly important themes: 1) empowering clients to assume greater control over their own lives, including participation in goal-setting and decision making about the care they receive; and more recently 2) focusing on client vocational education and employment issues as an integral element of recovery (Cohen, 1998; Lehman, 1995).

A study of community treatment team processes and case management practice, funded by NIMH and conducted in Ohio, provides the opportunity to explore various aspects of intervention with adults who have serious and persistent mental health problems. Two research questions addressing important aspects of case management practice will be discussed in this abstract:

(1) To what extent do case managers engage with clients in ways that are broadly perceived to be "empowering", and to what extent do case managers' perceptions of their own empowerment influence their propensity to engage in "empowering" practices?
(2) Why are vocational issues not a service priority for case managers who serve adults with severe mental illness?

The basic methodology of the Case Management Study will be reviewed first, then the conceptual framework and results for each of the research questions will be presented.

Study Sample and Survey Data Collection

Participants in this study were case management team members that serve adults with severe mental illness (SMI) from four counties in Ohio: Franklin, Lucas, Montgomery, and Summit Counties. A multi-stage recruitment process was used to secure participation from case management team members. First, the local Mental Health Boards in each county were contacted to discuss the study and identify appropriate agencies. After fourteen agencies were identified in the four counties, second-stage recruitment involved solicitation of agency participation through face-to-face meetings. All fourteen agencies agreed to participate in the study, yielding a total of 63 case management teams eligible for recruitment. In stage three of the recruitment process, research project staff contacted team leaders, explained the study objectives and asked if they could attend a regularly scheduled team meeting to solicit the participation of team members. Team meetings were used to explain the study, answer questions, and distribute a survey to all case managers.

The self-administered surveys required approximately 45 minutes to complete. The questionnaire addressed various issues related to case managers' ideologies of care, case management practice, quality of work life, and case manager well-being. Five dollars were included with each survey as a token of appreciation. Team members were asked to return completed surveys in a postage-paid envelope. In all, 446 surveys were distributed and 367 were returned for a response rate of 82.3 percent. For the analyses presented in this abstract, only case managers (n = 275) are included. Auxiliary team members and team leaders are excluded.

The sample of case managers (CMs) is described in Table 1. More than three quarters of the respondents were female. Ages ranged from 22 to 71 years old, with more than half of the CMs younger than 35 years old (median age is 34 years old). Nearly three in four identified themselves as Caucasian. About half of participants reported having no children, having an annual household income of less than $30,000, and having a college degree. One in five had a master's degree, with most of these degrees in the areas of social work or counseling.

Table 1. Demographic Characteristics of Case Managers in the Case Management Study Sample (n =275)

		%
Gender		
	Female	78.9
Age		
	25 years old or younger	10.5
	26 - 35 years old	44.5
	36 - 45 years old	18.6
	46 - 55 years old	21.1
	56 years old or older	5.5
Racial/Ethnic background		
	Caucasian	71.5
	African American	20.6
	Other	7.8
Marital Status		
	Single, never married	19.1
	Partnered, never married	17.6
	Married	40.8
	Previously married	22.5
Education		
	No college degree	26.0
	4-year college degree	55.0
	Master's degree	19.0

Qualitative Data Collection and Analysis

Qualitative data for this study were acquired from two sources: 1) observation of community treatment team meetings, and 2) "shadowing" of CMs as they worked. Upon completion of the survey by CMs in community treatment teams, certain teams were solicited for participation in the observation

phase of this study. Teams were selected for recruitment based on the team's survey response rate (at least 67%), the type of team (i.e. generalist vs. specialist), and agency affiliation. Research staff observed six regularly scheduled team meetings, documenting observations through field notes. All research staff were trained prior to the observation period regarding a common understanding of definitions for key "sensitizing concepts" and core issues of importance to the study. This training was also used to develop a common format for recording field notes.

Two randomly chosen CMs from each team were asked to allow observers to "shadow" them on two occasions for at least half a day. During these observation periods, research staff accompanied CMs as they carried out their usual activities. Each CM obtained consent from clients for the observer to be present during CM-client interactions. If a client objected, the shadowing session was delayed or rescheduled. Field notes were not taken during the shadowing period but were completed directly after the observation period.

All field notes were typed into word processing files within 48 hours of the observation period. Field notes were incorporated into a single "project" file using the QSR NUDIST qualitative data analysis package (QSR, 1998). Preliminary review of field notes was used to generate a coding scheme. Observers applied this preliminary coding scheme to a sample of field notes and used this experience to revise and refine the code categories, in some cases elaborating upon code categories. All field notes were then coded independently by two research staff. Differences in coding were either resolved between the two coders or were brought for discussion to meetings of all project staff members. Upon completion of coding, NUDIST software was used to generate reports comprised of all text units relevant to a particular topic such as the “vocational and employment” issues under discussion in this paper.

The Nature of Empowering Practice

Empowerment is a process of enhancing “the possibilities for people to control their own lives” (Rappaport, 1981, p. 15). Empowerment has a universal appeal in the American culture because of its emphasis on individual strength, democratic decision-making, and proactive attitudes toward improving one’s environment. While community and organizational psychology studies of empowerment have tended to assess the effects of social and organizational structures on the empowerment of individuals, social work research has tended to focus on empowerment in helping relationships. Two intellectual traditions inform this work: the strengths-based paradigm for social work practice and the social influence literature. The basis of the strengths perspective is that CMs believe in and rely on the ability of clients to heal and overcome challenges in their lives with the help of the social environment (Ackerson & Harrison, 2000; Cohen, 1998; Saleebey, 1996). This belief results in CMs engaging with clients as equals and sharing knowledge, tools, concerns, aspirations, and respect. The process of building a helping relationship is mutual and collaborative (Saleebey, 1996). Through active listening and sharing assets, CMs help clients identify problems, mobilize resources, and ultimately have control over their lives.

The social influence literature focuses on "interpersonal power" or "the capacity to influence the actions of others" (French & Raven, 1960). CMs exercise interpersonal power when they attempt to influence client decision-making. Although various sources of interpersonal power have been identified (French & Raven, 1960), two are particularly consistent with the notion of empowerment (vanRyn & Heaney, 1997). Referent power and informational power are critical elements in helping relationships that assist clients in articulating their problems and solutions, provide access to important information, and emphasize client abilities. *Referent power* exists when the client likes, esteems, identifies with, trusts, and feels valued by the CM (vanRyn & Heaney, 1997). Providing clients with unconditional positive regard and acceptance is essential to establishing referent power. *Informational power* exists when the CM has

access to information the client needs and clearly communicates this information to influence the client's decision (vanRyn & Heaney, 1997).

Synthesizing key concepts from the social influence literature with those in the social work strengths perspective literature results in the following six components of "empowering practice":

- Expressing positive affect and positive regard
- Encouraging clients to express their feelings and describe their experiences
- Reflecting client strengths
- Sharing relevant experiences from their own lives with their clients
- Supporting client choices
- Sharing information and access to resources.

The survey included 16 items that asked the extent to which CMs engage in these practices. Response options ranged from 1 = Not at all to 5 = To a very great extent. Table 2 presents these items, along with the results of an exploratory factor analysis conducted in order to clarify the structure of empowering practice. Four distinct factors, with eigenvalues greater than 1, emerged from the analysis. These four factors accounted for 51 percent of the variance among the items.

Based on the results of this factor analysis, several subscales were created by taking the mean of constituent items. Thus, the score for each subscale could potentially range from 1 to 5. An "affective relationship" scale was created (items #1-5) to reflect the extent to which CMs established warm friendly relationships with clients. A "client strengths" scale (items #6-8) indicates the extent to which CMs help clients become aware of and utilize their strengths. A "self-disclosure" scale (items #9-11) indicates the extent to which CMs share personal experiences and reflections with clients. A "client self-determination" scale (items #12 and #13) indicates the extent to which CMs support client choices. The descriptive statistics for each of these sub-scales and the correlations among them are presented in Table 3. The means in Table 3 indicate that the empowering practice activities that CMs engage in most often are those that establish a warm and friendly relationship. Disclosing personal experiences is engaged in least often. Given the lack of association between the self-disclosure scale and the other subscales, the self-disclosure items were not included in the overall index of client empowering practice (items #1-8 and #12-17).

The Relationship between Empowering Practice and CMs' Personal Empowerment

Although the nature of empowering practice is being discussed and refined in the literature, little work has investigated the factors that influence practitioners' likelihood of engaging in empowering practice. In this study, we investigated the extent to which CMs' own sense of empowerment affects their practice. It is hypothesized that CMs who perceive themselves as empowered in their own work will be more able and willing to model an empowerment approach to problem solving and to share power with clients than CMs who do not see themselves as empowered.

Spreitzer (1995a, 1995b, 1996) summarized four dimensions of workplace empowerment:

- *Meaning* involves the perception that one is engaged in important work;
- *Self-determination* reflects the extent to which a worker has autonomy over work processes (e.g., making decisions about work methods, pace, and effort).
- *Impact* is the degree to which one can influence strategic, administrative, or policy decisions in one's work unit.
- *Competence* is a belief in one's capability to perform work activities with skill.

Table 2. Factor Analysis of Empowering Practice Items

Item #	Item content: To what extent do you…?	Factors			
		Affective relationship	Client strengths	Self-disclosure	Client self determination
1	Allow clients to say everything they want to say about their problems or symptoms	.590			
2	Warm and friendly to clients	.707			
3	Reassure clients of your continued commitment to working with them	.626			
4	Try to build close relationships with clients	.587			
5	Communicate to your clients that you enjoy interacting with them	.609			
6	Reflect on your clients' abilities to solve problems		.782		
7	Ask clients how they have handled past challenges successfully		.636		
8	Help clients celebrate the progress they make		.632		
9	Share information about your life with your clients			.777	
10	Talk with your clients about your own limitations or admit when you have made a mistake			.444	
11	Highlight similarities between yourself and your clients			.792	
12	Support clients' choices, even if you disagree with them				.820
13	Encourage clients to pursue goals they identify, even if you think those goals may not be realistic				.753
14	Explain to clients why a certain course of action is suggested	.338	.371	-.231	
15	Give information about resources or services to your clients	.255	.315	-.253	.303
16	Encourage clients to express their feelings about their illness	.427	.419		
17	Encourage clients to describe the symptoms or problems they are experiencing	.423	.438		

Table 3. Descriptive Statistics and Correlation Coefficients for Empowering Practice Scale and Subscales

	Scale	Number of items	Mean	*SD*	Correlation coefficients and Cronbach alphas (1)	(2)	(3)	(4)	(5)
	(1) Empowering practice	14	3.67	.38	(.80)				
Subscale	(2) Affective Relationship	5	3.98	.51	.68**	(.68)			
Subscale	(3) Client Strengths	3	3.81	.55	.72**	.40**	(.53)		
Subscale	(4) Self-Disclosure	3	2.63	.63	.24**	.31**	.10	(.62)	
Subscale	(5) Client Self-Determination	2	3.13	.67	.73**	.17**	.20**	.13*	(.51)

Note. Each scale is the mean of constituent item scores. All items have 5-point response options, with a higher number indicating more empowering practice. Cronbach alphas are presented in the diagonal. Off-diagonal numbers are correlation coefficients.
* $p < .05$. ** $p < .01$.

CMs' perception of their own personal empowerment in their jobs was assessed with 12 items adapted from Spreitzer (1995a, 1995b, 1996). These 12 items constitute a CM Empowerment Scale. This scale can be further disaggregated into four subscales. Descriptive statistics for these CM empowerment scales are provided in Table 4.

Table 4. Mean, Standard Deviation, Correlation Coefficient and Cronbach Alphas for CM Empowerment Scale and Four Subscales

	Scale	Number of items	Mean	*SD*	Correlation coefficients and Cronbach alphas (1)	(2)	(3)	(4)	(5)
	(1) CM Empowerment	12	3.77	.54	(.87)				
Subscale	(2) Meaning	3	4.03	.77	.69	(.82)			
Subscale	(3) Self-determination	3	4.10	.67	.75	.32	(.89)		
Subscale	(4) Impact	3	2.93	.85	.69	.29	.32	(.82)	
Subscale	(5) Competence	3	4.02	.70	.76	.35	.62	.29	(.88)

Note. Each scale is the mean of constituent item scores. All items have 5-point response options, with a higher number indicating more empowerment. Cronbach alphas are presented in the diagonal. Off-diagonal numbers are correlation coefficients.
* $p < .05$. ** $p < .01$.

In order to assess the extent to which CMs' own sense of empowerment on the job is related to their performance of empowering practices with their clients, regression analyses were conducted. For each regression model, empowering practice was regressed on a set of demographic controls and a variable reflecting CMs' organizational empowerment. As shown in Table 5, CMs who perceive themselves to be more empowered on the job are more likely to engage in empowering practices with their clients. This relationship is statistically significant but of only moderate magnitude. It holds across all of the constituent components of organizational empowerment, with *impact* having the weakest relationship to empowering practice.

Table 5. Regression Results from Models with Empowering Practice as the Dependent Variable and the CM Empowerment Scale and Four Subscales as Independent Variables

Independent Variable	β	SE	*p*	ΔR^2
CM empowerment	.309	.048	.000	.091
Meaning	.272	.034	.000	.070
Self-determination	.245	.039	.000	.058
Impact	.129	.031	.044	.016
Competence	.261	.038	.000	.062

Note. Each independent variable was examined in a separate model that includes the independent variable and demographic variables. All regression models are controlled for demographics: age, gender, job tenure, team type, and whether or not the CM has an MSW or masters degree in counseling. Regression coefficients (βs) are standardized. ΔR^2 indicates the amount of variance explained solely by the corresponding independent variable after controlling for demographics.

Conclusion

These findings indicate that promoting organizational empowerment among CMs could potentially increase their use of empowering practices with clients. It is important to note that further research is needed to refine the concept of empowering practice and to further develop measures that apply to case management practice.

Client Employment as a Service Priority

Addressing the vocational needs of people with severe mental illness (SMI) is a critical component of several models of community-based treatment (Bond, 1992; Lehman, 1995; McFarlane et al., 2000), and recent research has underscored the importance of vocational activity for enhancing quality of life among members of this population (Lehman, 1995; USDHHS, 1999; Van Dongen, 1996). However, despite heightened awareness of the potential benefits of employment and increased interest in efforts to facilitate vocational rehabilitation, employment rates among people with SMI have remained quite low, estimated to be between 10 percent and 25 percent (Van Dongen, 1996).

A number of explanations have been posited for the lack of substantial progress in improving the vocational status of people with SMI. These include inadequate or inappropriate vocational rehabilitation services, discrimination by employers, financial disincentives, and lack of motivation and persistence among people with SMI (Lehman, 1995; Priebe, Warner, Hubschmid, & Eckle, 1998; USDHHS, 1999; Van Dongen, 1996).

Results from the Case Management Study survey suggest that case managers' beliefs about the importance of client employment outcomes are not well-integrated into their ideologies of care. As reported previously, (Heaney & Burke, 1999), evidence was found for the existence of distinct orientations to care focused on maintenance and growth. The maintenance ideology focused on realizing goals and achieving outcomes related to medication compliance and keeping clients from harming themselves or others. By contrast, the growth ideology emphasized the importance of pursuing client outcomes related to enhancing social support systems, the acquisition of new skills, and feelings of hope and optimism about their future. Client goals and outcomes related to vocational and employment issues emerged as a separate ideology, unrelated to concerns about maintenance or growth. Moreover, CMs much more strongly endorsed maintenance and growth ideologies than the client employment ideology. Further evidence for the low importance placed on client employment issues emerged when CMs were

asked to rank order certain client outcomes (1 = most important, 5 = least important). More than 75 percent ranked "having some paid employment" as the least important of the five outcomes listed. Table 6 presents the results of this ranking task.

Table 6. Ranking of Five Client Outcomes Given That Clients' Basic Needs Are Met

Client Outcome	% of Respondents Giving Ranking (1 = Most Important)					Median Rank
	1	2	3	4	5	
Clients have had some paid employment	2.5	3.6	6.6	11.0	76.3	5
Clients have more voice in what happens to them	28.3	24.7	26.4	15.9	4.7	2
Clients have independent living skills	45.3	22.8	15.9	13.2	2.7	2
Clients have positive self-concepts	18.7	28.8	29.4	16.5	6.6	3
Clients have adequate social support from friends of family	5.2	20.1	21.7	43.4	9.6	4

In an effort to discover the reasons underlying this lack of endorsement, the field notes from the observations of case management team meetings and CM interactions with their clients were analyzed (see methodology section above). All text units that included a mention of client employment were selected. Two research staff members then independently read through the relevant text units and inductively created a coding scheme to capture the major themes represented in the data. From this analysis process, the following interpretations emerged.

In general, employment and vocational issues were not discussed to a great extent. Of the 45,807 text units that comprise the fieldnote data stemming from observation of the team meetings, only 375 of them (less than 1%) included a mention of client vocational issues. This can be compared to the several thousand text units making references to maintenance or growth issues.

Employment outcomes were acknowledged as an integral component of the recovery process. Two types of evidence support this claim. First, employment status was often used as an indicator of client functioning, well-being, or quality of life. For example, CMs incorporate vocational issues into their descriptions of clients' poor functioning as follows:

> The medical issues…got him to Doctor's West and he was discharged last Friday; he's in CSU [crisis stabilization unit]…no car, no house, no job…so he's in CSU.
>
> CM1 states that Client G is on the brink of doing time. CM1 explains that Client G has had 3 jobs in 2 weeks and was fired from the carwash on Main Street, and was banned from AA meetings because of violence.

A discussion between two CMs about a client's progress centered on employment:

> CM1: How is Client B?
> CM2: OK, but depressed lately
> CM1: Any jobs?
> CM2: A couple, for a couple of days, but then he doesn't show up and gets fired.

Another CM described a client as doing well:

> CM tells the doctor that she has a note on Client X indicating that Client X is working and that the place where Client X is working loves Client X.

Second, cursory vocational updates were incorporated into the structured meeting process of many of the teams. When providing routine client updates, CMs would mention whether or not the client was engaging in any vocational activity or was progressing toward vocational goals that were part of the client service plans. However, although vocational issues were mentioned as indicators of how a client was doing, CMs did not talk about employment or vocational placements as a means of *improving* client well-being or enhancing quality of life.

At times, CMs seemed to question clients' motivation to work. However, there were more mentions of clients wanting to work than not wanting to work. CMs made references to clients talking about how important their jobs were, both for tangible benefits (e.g., money) and non-tangible benefits (e.g., self-esteem). Several times CMs mentioned that clients expressed a desire to work, but that the CMs were uncertain as to the clients' abilities. This is captured in the following discussion:

> CM1: "Is she capable of working?"
> Psychiatrist: "I don't know"
> CM2 explained that Client J wants to work
> CM1 asked if Client J could handle a job.
> Psychiatrist: "It is difficult to answer that question because Client J has worked in the past."
> CM1: "Well, I don't want to give this client a placement if it is not appropriate."

When client vocational issues were raised at meetings, CMs were more likely to respond with concerns or objections rather than encouragement. These concerns took several major forms: (1) the job or the work is too stressful for the client; (2) the client is not ready or not skilled enough to succeed in a new vocational endeavor; (3) the client has a history of not keeping a job (implying that it is fruitless to put effort into further placement); and (4) employment or vocational activities interfere with treatment options.

Table 7 presents some examples from the field notes to illustrate each of these categories of concerns. Although CMs raised many concerns about client employment, it is interesting to note that not one CM mentioned possible discrimination by employers as a concern. Nor was any reference made to the need for clients to be skilled in advocating on their own behalf or seeking accommodations in the workplace.

Conclusion

CMs' understanding of the importance of vocational activity for client well-being does not translate into making it a service priority. These qualitative data suggest that CMs resist engaging wholeheartedly in efforts to enhance the vocational rehabilitation of their clients for a variety of reasons. In part, this may be due to the perception that vocational activities interfere with other case management activities or make their successful completion more difficult. In addition, several CMs expressed uncertainty as to the employability of their clients. Given that CMs interact with their clients more often than do other mental health system professionals, training in the rudiments of job readiness assessment might be an effective strategy for overcoming CMs' ambivalence and uncertainty. CMs may also need to be better informed about evidence for the benefits to clients stemming from vocational education and

employment, and about how to assist clients in overcoming the barriers to employment and obtaining accommodations to which they are entitled in the workplace. These are likely to be important strategies even when vocational rehabilitation responsibilities are, for the most part, carried out by specialized professionals or auxiliary team members.

Table 7. Examples of Case Manager Concerns About Client Employment

Type of Concern	Examples from the Field Notes
Job is too stressful	CM starts by talking about Client A. CM tells the team that Client A has a job at Burger King for 4 hours a week. CM hopes that Burger King will only give Client D 4 hours because that is all that Client D can handle. CM indicated that she tried to suggest to the client that her job was just too stressful and that she should apply for disability. But the client likes working. The team psychiatrist and 2 CMs discussed a client who is working 40+ hours. They agree that the client is "working too much". The psychiatrist states that she saw the client in the lobby and that he looked very tired.
Client is not ready or not skilled enough to succeed in a new vocational endeavor	CM1 thought that the client might be "scared to work". CM2 agreed and said that expecting Client S to get a job was unrealistic. CM said that Client A was one of the only clients with the team who understood why he should work, had the skills he needed to work, and consistently showed up for work. The CM went on to say that many of their clients lacked the social skills needed to work. CM discusses client who recently began delivering pizza. She jokes with the psychiatrist that he "might deliver you your pizza." The psychiatrist: "No one asked me if he could drive." CM: "He has always had his truck." Psychiatrist: "This is horrible, just horrible."
Client has a history of not keeping a job (implying that it is fruitless to put effort into further placement)	CM states that caring for these children is Client B's newest job, and historically, she will quit by next month. "Like I said, if we give her a month, she probably won't be watching them anymore". CM states that Client F is not on SSI and that the client quits job after job. CM said that Client O has a job at Sears but that she hardly ever goes.
Employment or vocational activities interfere with treatment options	Psychiatrist: "What treatment can we get him into?" CM: "He won't go to treatment. He surrounds himself in his work…He puts a lot of time in there" CM discusses treatment options for a client who is abusing alcohol. CM1: "He doesn't want to go to a locked facility because he wants to work." CM2: "If he sobered up for 30 days, would he be all right in a shared apartment?" CM1: "At _____? No, it's too far from his job."

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CHARACTERISTICS OF STALKERS IN THE INPATIENT POPULATION

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Although stalking is not a new phenomenon, the area of stalking research is relatively young. There has been a primary focus on non-psychotic stalkers with a prior relationship to the victim, but not as much concentration on those stalkers who have a major mental illness and require psychiatric hospitalization. It is those stalkers with severe mental illness who have been viewed, because of their delusional beliefs, as the most unrelenting and difficult to treat. More information is needed to understand this subgroup of individuals, and such knowledge would assist in prevention of and intervention in stalking behaviors.

The present study will endeavor to contribute to the knowledge base on stalking through contributing to the demographic information compiled in the literature. These data will be compared to information looking at stalkers fitting the classifications delineated in the literature (Mullen, Pathe, Purcell, & Stuart, 1999; Zona, Sharma, & Lane, 1993). More complete differential profiles of stalkers would lend much toward understanding the underlying psychological motivations and subsequent behaviors of the stalker. This study will include demographic characteristics, psychiatric diagnoses, and stalking behaviors. There will be a specific focus on those stalkers with delusional beliefs regarding the target of their affections.

Stalker Categories

There have been several different categories developed over the years in an effort to best conceptualize stalkers. Holmes (1993) delineated several types of stalkers. Of relevance here are the Love Scorned and the Domestic stalker. The Love Scorned stalker is usually known to the victim. There is a plan to stalk with an intrinsic motivation, a psychologically anticipated gain, and with no intended fatal violence or sexual motivation involved. The Domestic stalker has been rated similar to the Love Scorned stalker in many respects except that the Domestic stalker may have the intention of fatal violence. A further distinction between the Domestic stalker and the Love Scorned stalker is as follows: "The Domestic stalker at one time shared an intimate part of the victim's everyday life...inclusive of, but not limited to, love", and had a mutually "shared relationship and life experiences" (p.323). The Love Scorned stalker, on the other hand, misconstrues the extent of the existing relationship held with the victim. "The predator believes the victim, once realizing how much the stalker really cares, will return that affection" (p. 323).

Another typology that has been adopted in much of the literature has been developed by Zona, Sharma, and Lane (1993) who delineated three types of stalkers: Simple Obsessional, Erotomanic and Love Obsessional. The Simple Obsessional stalker stalks after a relationship has gone "sour," or as the result of some perceived personal injustice. "The [stalker] usually then begins a campaign either to rectify the schism, or to seek some type of retribution" (p. 896). The Simple Obsessional stalker engages in behavior that overlaps with domestic violence, and thus the Simple Obsessional stalker is much more common than the Love Obsessional and Erotomanic stalker. It should be noted, however, that the stalker with erotomanic delusions may not be as rare a phenomenon as once thought (Hollander & Callahan, 1975). This is currently an area under some debate.

Erotomania, as described in the Diagnostic Statistical Manual, 4th edition (DSM-IV) (American Psychiatric Association, 1994) is the delusional belief one has that another person, usually of higher status, is in love with, in this case, the stalker. The romantic feelings experienced by this stalker are usually idealized and spiritual in nature.

Similar in many respects to the Erotomanic stalker is the Love Obsessional stalker (Zona et al., 1993). The Love Obsessional stalker knows his/her victim almost always through the media. Although the delusion that the victim loves him/her may also be held, as with the erotomanic, this is one of several delusions and psychiatric symptoms. An important distinction is that the preoccupation with the love object can be maintained without having the belief that the target is in love with them. Moreover, the intensity of the delusion varies.

A more recent typology offered by Mullen, Pathe, Purcell and Stuart (1999) suggests five categories of stalkers: the incompetent, the intimacy seeker, the rejected, the resentful, and the predatory. Incompetent stalkers have been described as intellectually limited and socially incompetent individuals desiring intimacy, but the object of their affection does not reciprocate these feelings. They often lack sufficient courting skills and may also display a sense of entitlement: they believe that they deserve a partner, but the ability or desire to engage in initiatory interpersonal relations is lacking. Another aspect of these stalkers is that they may have had previous stalking victims. These stalkers are not infatuated with the victim--only attracted--and do not assert that the affection is mutual.

The stalkers classified as seeking intimacy pursue an intimate relationship with an individual perceived as their true love, and their attentions are not wanted by the object of their affection (Mullen et al., 1999). The type of stalker who falls into this category often has a delusional disorder (i.e., erotomania). They may suffer from other disorders (i.e., schizophrenia, mania), hold morbid infatuations, and/or have a personality disorder.

The rejected stalker pursues as a result of a relationship dissolution (i.e., estrangement, disruption, break-up) from an ex-partner (primarily), but also from a parent, friend, or work associate. This type of stalker can be observed desiring a combination of reconciliation and revenge (Mullen et al., 1999). This individual often experiences feelings of loss infused with frustration, anger, jealousy, malevolence, and sorrow. Personality disorders and morbid jealousy are both prevalent with the rejected stalker.

The resentful stalker seeks to frighten and distress the target (Mullen et al., 1999). These stalkers often experience feelings of injustice and desire revenge. They may stalk a victim at random when, for example, after having endured a shameful rejection they witness a happy, attractive, and wealthy individual, or they may stalk a more specific target, such as a physician, for not correctly diagnosing symptoms of cancer in the stalker's wife.

Predatory stalkers are characterized by sexual sadism: they enjoy the feelings of power while stalking their victims (Mullen et al., 1999). Information on the victims is collected and fantasies of the attack are rehearsed. The predatory stalker most likely has a history of sexual offenses and a high prevalence of paraphilias.

The study by Mullen et al. (1999) indicated that most of the stalkers were "the rejected" (n = 52), followed closely by "the intimacy seekers" (n = 49), and then by "the incompetent" (n = 22), "the resentful" (n = 16), and lastly "the predator" (n = 6). Other demographics from this study and other stalking research are described below.

Demographic Characteristics and Diagnoses

Mullen and colleagues (1999) reported that, overall, the stalkers in their study were primarily male (79%) and often not employed (41%). In each of the five categories (i.e., the incompetent, the intimacy seeker, the rejected, the resentful, and the predatory) males made up most of the sample size. The ages in this study ranged from 15 to 75 years (*Mdn* = 38 years). Slightly more than half had never experienced any long-standing relationships; 30 percent had been separated or divorced at the time of the study.

Stalkers are usually unemployed/underemployed (Meloy and Gothard, 1995). Hall (1998), however, only found three percent as unemployed during the time of the stalking. Pathe and Mullen (1997) described 43 percent of their sample as unemployed. Such inconsistencies could be attributed to some stalkers being incarcerated in some studies, but not in the Hall study.

Hall (1998) described several background histories of those who stalk: the sample was composed of 52 percent drug/alcohol abuse (29% unknown), 30 percent mental illness (54% unknown), 49 percent violence or physical abuse (42% unknown), 34 percent criminal record (42% unknown), 31 percent violent family background (56% unknown), and 30% stalked another person(s) (62% unknown).

Hall was able to determine that 27 percent of the sample had at least a high school education. This was based on the occupations of the stalkers as professional (17%) and executive/managerial (10%). Other occupations were as follows: clerical/sales (10%), precision/crafts/repair (10%), student (9%), technical (7%), retired (6%), unemployed (3%), military (3%), disabled/ handicapped (3%), musician/actor (2%), homemaker (1%), other (6%) and unknown (13%).

A more specific account of erotomanic individuals was reported by Rudden, Sweeney, and Frances (1990). These authors found that of the 28 erotomanic patients at their clinic 75 percent (n = 21) were women. Marital status was also reported: 68 percent (n = 19) had never been married, 18 percent (n = 5) had been married, and 14 percent (n = 4) had been divorced/widowed. The erotomanic individuals in the study had additional diagnoses (formulated with the DSM-III-R) of schizophrenia or schizophreniform disorder (n = 12, 43%), affective disorder, bipolar (n = 2, 7%), paranoid or delusional disorder (n = 7, 25%), and other (e.g., schizoaffective disorder) (n = 7, 25%).

The diagnoses found by Rudden and colleagues (1990) are commensurate with other findings in the literature. Meloy and Gothard (1995) noted that 85 percent of their obsessional followers had both an Axis I and Axis II diagnosis during the evaluation period of the study. While substance abuse or dependence was most common (35%), mood disorders were found in 25 percent of the sample. The Axis II disorders found most often were: Narcissism, Borderline, Antisocial and Histrionic.

Hypothesis

In the present study, where inpatient stalkers were the focus, a comparison to the stalking literature was made. Research findings have shown that with those stalkers diagnosed with severe mental illness, as is common in inpatient samples, delusional disorder, psychoses, and mood disorders predominate. The typologies that appeared to most correspond to the inpatient population were Zona et al.'s (1993) Love Obsessional and Erotomanic categories. The incompetent and intimacy-seeking typologies developed by Mullen et al. (1999) seemed most likely in the inpatient population because of the possibility of severe psychopathological manifestations. In the case of the incompetent stalker, it was mentioned earlier that these stalkers are not infatuated with the victim--only attracted--and do not assert

that the affection is mutual. The incompetent category could include the type of stalker described by Zona et al. (1993) as the Love Obsessional stalker--these stalkers may be preoccupied with the love object without having the belief that the target is in love with them. In regard to the intimacy-seeking stalker category, it was reviewed above that these stalkers often have erotomanic delusions with the target who is perceived as their true love.

It was hypothesized that two types of stalkers would be found among the inpatient population: the intimacy seeker and the incompetent stalker, as delineated in the most recent five-typology categorization by Mullen, Pathe, Purcell and Stuart (1999).

Method

Thirty-one stalkers were obtained from the past and present inpatient population at Twin Valley Behavioral Healthcare (TVBH), Columbus and Dayton campuses. The patients were selected based on their current or past stalking behaviors, or the diagnosis of erotomania.

All information was archival in nature and acquired through patient chart records and information stored in a statewide Patient Care System (PCS) database. The admission process highlights stalking behaviors and was the primary method for identifying stalkers as they entered TVBH. A secondary method for identifying potential subjects was through a database search on the PCS for the diagnosis of erotomania.

All data were grouped into the following areas: gender, age, ethnicity, marital status, education, legal status, criminal history, prior psychiatric hospitalization, employment status, psychiatric diagnoses, and stalking behaviors. The identifying information of the patients were kept confidential. Indeed, the aggregate information precluded associating any of the patients to their data. The psychiatric chart records and Patient Care System (PCS) were utilized to gather patient information.

Descriptive Statistics

The sample was composed of 22 males (71%) and nine females (29%). The average age of the total sample was 43.03. Males on average were 43.68 years old and slightly older than the females in the sample who were on average, 41.44 years old. Ages ranged from 26 years old to 62 years old.

The distribution of ethnicity was as follows: 25 (81%) Caucasian, five (16%), African-American, and one (3%) Asian-American. There were no African-American female stalkers in this sample. Eight females were Caucasian and one female was Asian-American.

In regard to marital status, the sample was predominantly single (n = 15, 48%) or divorced (n = 10, 32%). Only two (6%) were reported to be married, and one (3%) was separated. Two (6%) were either widowed or a widower. The marital status of one individual in the sample could not be identified conclusively from the records.

A large portion of the sample was unemployed (n = 20, 64%) at the time of admission to the hospital. Only 25 percent (n = 8) reported being employed. Insufficient information was present for nine percent (n = 3) of the sample.

This sample was composed of individuals with often at least a high school education--48 percent (n = 15) had received 11-12 years of education. Higher education was obtained by 35 percent (n = 11),

ranging from 13 to 16 years of education. Only one person had less than a high school education, terminating school after five years. Insufficient information characterized 12 percent (n = 4) of the sample.

Forty-five percent (n = 14) of those in the sample had never had a prior psychiatric admission to a state psychiatric facility. Those with prior admissions ranged from one through 14 psychiatric admissions: most had been admitted once (n = 7, 23%) or twice (n = 3, 9%); others had been admitted four (n = 2, 6%) or six times previously (n = 2, 6%). Three had been admitted previously at 9, 11, and 14 times.

Substance abuse was a common diagnosis in this sample – 61 percent (n = 19) had a history of substance use/abuse. Alcohol abuse/dependence was the most prevalent of substance use (n = 10, 32%). Cannabis abuse occurred in 16 percent (n = 5) of the sample. Crack (n = 1) and cocaine (n = 1) abuse each occurred in three percent. Two persons (6%) had unspecified substance abuse.

The most common primary Axis I diagnosis, based on the Diagnostic Statistical Manual 4th Edition (1994), was schizophrenia (i.e., inclusive of schizoaffective disorder and psychotic disorder, not otherwise specified) (n = 14, 45%). The second most prevalent primary diagnosis was a mood disorder (i.e., Bipolar disorder, manic, depressed, or mixed) (n = 12, 39%). Delusional disorders was represented in 16 percent (n = 5) of the sample.

The legal status of the patients as they entered the hospital corresponded to the following main categories: Not Guilty by Reason of Insanity (n = 4, 12%), Incompetent to Stand Trial - Restorable (n = 9, 29%), Emergency admissions (n = 3, 29%), Voluntary admissions (n = 5, 16%), Temporary Order of Detention (n = 2, 6%) and Involuntary Probate Court Commitment (n = 8, 26%).

The legal charges/criminal history that were most common included telephone harassment (n = 7, 22%) and the violation of restraining orders/protection orders (n = 7, 22%). Criminal trespassing charges (n = 4, 12%) and assault charges (n = 4, 12%) were also frequent in this sample. Other charges which existed in the criminal histories of the sample included domestic violence (n = 2), petty theft (n = 2), making false alarms (n = 1), robbery (n = 1) and murder (n = 1).

Several stalking behaviors were recorded in this study: telephone harassment (n = 23, 74%), surveillance (n = 9, 29%), pursuit (n = 14, 45%), trespassing (n = 9, 29%), sending letters (n = 12, 38%), sending e-mail (n = 1, 3%), sending gifts (n = 4, 12%), suicidal threats (n = 2, 6%), threats (n = 18, 58%), damage property (n = 1, 3%), aggressive menacing (i.e., having a weapon on or under the control of the person) (n = 4, 12%), physical assault (n = 5, 16%), and rescuing (n = 2, 6%).

Stalking Typologies

A chi-square analysis comparing the four types of stalkers found that there were significantly more intimacy seekers in this sample, $\chi^2(3, N = 31) = 11.45$, $p < .01$. A one-way analysis of variance (ANOVA) revealed that intimacy seekers were significantly older than the other three types of stalkers (M = 49.60, SD = 8.97), F (3, 27) = 5.66, $p < .003$. A chi-square analysis comparing the four types of stalkers on ethnicity found a significant difference, $\chi^2(3, N = 31) = 8.18$, $p < .05$. African-Americans were most likely to be represented in the incompetent stalker category. It should be noted that because the incompetent category had only two persons assigned to it overall, any conclusions made are related only to small sample size and cannot be generalized beyond the present data set.

With regard to the stalking behaviors three significant chi-squares were found: the intimacy seekers were most likely to harass by telephone, $\chi^2(3, N = 31) = 8.83, p < .05$; send letters, $\chi^2(3, N = 31) = 12.67, p < .05$; and send gifts, $\chi^2(3, N = 31) = 12.00, p < .05$.

Discussion

This study had as its focus inpatients who were placed in a state psychiatric hospital. It was hypothesized in this study that two types of stalkers would be found among the inpatient population: the intimacy seeker and the incompetent stalker, as delineated by Mullen et al. (1999). This was found to be true for the intimacy seeking stalkers, but not the incompetent stalkers. Moreover, the findings did not account for the large number of stalkers falling into the categories of rejected and resentful. These results can be explained in several ways: Trying to force individuals into categories is sometimes difficult. The small number of incompetent stalkers in this sample may have been influenced more by missing information (the psychiatric chart records rarely indicated whether or not the patient believed the victim was in love with them). The total sample of 31 stalkers is quite small. It should be noted that the population of individuals dually diagnosed with mental retardation and mental illness (MR/MI) who stalk would have elevated the number of those in the incompetent category. The MR/MI, as well as those with mental retardation or developmental disabilities need to be considered in future studies on stalking.

Also interesting was that the results in this study were consistent with findings in the stalking literature (Kienlen, Birmingham, Solberg, O'Ragan, & Meloy, 1997; Meloy, 1996; Meloy & Gothard, 1995; Mullen et al. 1999; Zona et al., 1993). In general, this sample was composed of single, unemployed white males in their early forties with a twelfth grade education or higher. Alcohol abuse and marijuana abuse were also common in this sample, another finding consistent with the stalking literature (Hall, 1998; Meloy & Gothard, 1995; Mullen et al., 1999; Zona et al., 1993). The psychiatric disorders most commonly occurring in this sample were the psychotic disorders (i.e., schizophrenia, schizoaffective, or delusional disorder), although the bipolar disorders were frequent as well. A large percentage of those in this study had never before been admitted to a psychiatric hospital. The legal status upon admission was some form of competency restoration or court-ordered commitment. Several of the stalkers in this study had a criminal history, but were most likely to be related to the stalking behaviors that led to their involvement with the law (i.e., telephone harassment or violations of restraining/protection orders). The most common stalking behavior was telephoning the victim, followed by threats, pursuit, and sending letters. Whereas Axis II disorders were common in other studies (Meloy & Gothard, 1995; Meloy, 1996), they often are represented by non-psychotic stalkers (Kienlen et al., 1997; Zona et al., 1993). In this study, antisocial personality disorder was found in six percent of the sample; narcissistic and paranoid personality disorders each were found in three percent of the sample. Such findings are consistent with the stalking literature which reports most stalkers falling into the Cluster B personality disorders. That antisocial personality disorder was most common in this study, and least common in the stalking literature (Meloy & Gothard, 1996), is likely due to the type of population this sample was drawn from--a state psychiatric hospital.

What was striking was that the inpatients who engaged in stalking behavior did not conform to the three categories delineated by Zona, Sharma and Lane (1993) Erotomania, Love Obsessional, and Simple Obsessional do not clearly exemplify the variety of motivations behind stalking behaviors; for example, as a result of a mental illness (e.g., chronic paranoid schizophrenia) an individual may misidentify a person and seek proximity (but not intimacy) with persistent fervor. Other authors, for example, have proffered typologies that take into account not only intrinsic motivation, but psychologically anticipated gains, sexual motivation, and intentions of fatal violence (Holmes, 1993). Holmes= typologies, however, do not account for delusion-based stalking. Conversely, the five categories

(i.e., incompetent, intimacy seeker, rejected, resentful, and predatory) that were developed by Mullen, Pathe, Purcell and Stuart (1999) present a typology that so far best captures the motivations and explains how the stalking behaviors are manifested. It should be noted, however, that even with these categories, there are shortcomings. In some cases, those who seek proximity may not be looking for intimacy, revenge, or power. Instead, there may only be efforts to establish a friendship--as with one stalker who experiences manic symptoms with psychotic features--or to confirm the delusional belief that a female is the pursuant's wife/daughter--in the case of another stalker experiencing paranoid schizophrenia. These two stalkers, both from this study, were categorized into the incompetent and intimacy seeking typologies, respectively, but neither appeared to represent those categories well. Is the use of categories meaningful? Perhaps the hypothesis-generating research being undertaken in the area of stalking would be better served by examining the behaviors (and pattern of conduct), psychological symptomatology/diagnoses and motivations of the stalkers. This may also help in the area of risk management, prevention, and treatment.

As mentioned above, there has been difficulty placing stalkers from this study into any of the typologies developed in the literature (Holmes, 1993; Mullen et al. 1999; Zona et al. 1993). There are even problems with erotomania, the delusional disorder listed in the DSM-IV (APA, 1994). Meloy (1996) has indicated that the diagnosis of erotomania, in its pure form, is quite rare. Skoler (1998) has described some of the confusion that surrounds the diagnosis of erotomania: that underlying the spiritual union sought after by the erotomanic is an "unconscious aggressive and sexualized foundation"(p. 97). This exemplifies the splitting defenses often seen in individuals with erotomania: they experience idealization of the love object and at times, paradoxically, intense hostility. In this study, for example, one person with erotomanic delusions had written letters to a public official that would profess his love and hatred in the same sentence. Threats do occur with those holding erotomanic delusions--a behavior not included in the DSM-IV criteria for erotomania--and have been addressed in detail (Dietz et al., 1991a; Dietz, et al., 1991b). Dietz et al. (1991a; 1991b) found that there was no relationship between approach behaviors and threatening letters written to Hollywood celebrities, and for those who sent threatening letters to United States Congressmen, they were less likely to pursue contact than those who wrote non-threatening inappropriate letters. In Meloy's (1996) review of the literature, he found that while only half of the stalkers reviewed in the literature made threats, the threats were acted on in 25 percent of the cases. Palarea, Zona, Lane and Langhinrichsen-Rohling (1999) found that those stalkers who had been involved in intimate relationships had a tendency to engage in behaviors that were more threatening and violent.

Proposed solutions for the shortcomings of the current typologies are as follows: the criteria for the erotomania delusional disorder should be expanded to include the current research (i.e., idealization/devaluation, not exclusive of other delusional ideas, threats, etc.). The category of incompetent stalker should be broadened to include those of low intellectual functioning/social functioning who are merely seeking proximity and not an intimate relationship (i.e., misconstruing the depth or type of relationship). A new category, "delusion-based", should be included to account for stalkers who pursue their targets not with the intent to form intimate relationships, but based on misidentification or some other delusion-based reasons (i.e., holding the irrational belief that someone has the power to help them get into heaven, or that one is a secret government agent and must spy on their target)--this could lead to many common stalking behaviors without there being any elements of a desire for an intimate relationship. The aim here is to better exemplify the behaviors and motivations of the stalker and facilitate prevention, intervention, and treatment. Such information should be addressed in future risk assessments. As Meloy (1996) suggested, risk assessments should be done periodically due to both the static and dynamic characteristics of stalkers and their behaviors. In the case of stalkers in the inpatient population who experience delusions about a victim, care should be taken to monitor any threats

made, the type and extent of the delusion (as well as level of insight into their mental illness) and pattern of conduct in addition to other risk assessment criteria.

Unfortunately, this study contains limitations much as those reviewed above. One problem that relates to external validity is that the stalkers in the present study had been admitted to only one hospital. Although the results were similar to findings in the research literature, generalizing to other inpatient populations might be problematic. Another limitation to this study was that it did not utilize structured (e.g., the SCIDS) diagnostic methods, or any validation of disorders by DSM IV criteria. Clearly, this is a problem related to all ex post facto designs. Moreover, insufficient data existed with regard to background history (i.e., criminal history, stalking behaviors, and demographics) were sometimes lacking. It is possible that such missing information could have, especially with such small sample sizes, led to unreliable measurements.

Summary

The present article shows consistency with the current research: that is, stalkers in inpatient populations are generally single, unemployed white males in their early forties with at least a twelfth grade education. The common psychopathology seen is substance abuse, psychotic disorders (i.e., schizophrenia, schizoaffective, or delusional disorder) and mood disorders. Personality disorders found in this study--antisocial, paranoid, and narcissism--have also been found in similar samples of patient populations who stalk. Inconsistencies discovered related to difficulties in categorization. Current typologies do not take into account non-intimate delusional stalking or the unwanted persistent pursuit of non-intimate relationships. The diagnostic criteria of the delusional disorder erotomania should include recent empirical findings. Likewise, the typologies offered by Mullen et al. (1999) should expand the category of incompetent stalker to include desires for non-intimate relationships, and should add a new category addressing delusional-based stalking characterized by misidentification or persistent non-intimate related attempts to seek proximity.

Ultimately, more detailed descriptions of the characteristics of stalkers in the inpatient population will help in the area of risk assessment. It is hoped that risk assessment criteria can be honed to improve the intervention and prevention of stalking by those in the inpatient population.

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THE COMPARISON OF LOSS THERAPY AND SHAME THERAPY FOR INDIVIDUALS WITH HISTORIES OF AFFECTIVE VIOLENCE

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Affective violence is a primary component found in the unwanted, proximity-seeking behavior commonly referred to as stalking. Stalking involves willful and often malicious harassment by an individual who is angered by a real or perceived rebuff (Meloy, 1998). Affective violence is in contrast to the cold, calculated, and detached form of "predatory violence" (Meloy, 1992).

The purposes of this study were threefold: (1) to offer therapeutic interventions for patients who have engaged in affective violence and/or unwanted proximity-seeking (inclusive of stalking); (2) to treat these patients and move them toward a more effective state of functioning whereby they can gain from further therapy; and, (3) to increase professional understanding regarding stalkers, thus furthering knowledge in the field of stalking.

Researchers in the area of stalking have borrowed from attachment, object-relations, and shame literature to gain an understanding of stalking behavior. Initially, stalkers had been typified into three categories: Simple Obsessional (i.e., prior relationship with their victim that is inclusive of, but not specific to a prior intimate), Erotomania (i.e., a delusional disorder that one is loved by another), and Love Obsessional (i.e., a myriad of delusions differing in intensities) (Zona, Sharma, & Lane, 1993).

A more recent categorization developed by Mullen, Pathe, Purcell and Stuart (1999) delineates five types of stalkers. The "rejected stalker" desires reconciliation and revenge and experiences feelings of loss, frustration, anger, jealousy, malevolence, and depression that comes about as a result of a relationship dissolution. The "intimacy seeker" pursues an unrequited intimate relationship with an individual perceived as their true love--a delusional disorder (i.e., erotomania) is possible or they may suffer from other disorders (i.e., schizophrenia, mania) or hold morbid infatuations. The "incompetent stalker" is an intellectually limited and socially incompetent individual who desires intimacy, but he/she often lacks sufficient skills to gain this intimacy through courting rituals. There may also be a displayed sense of entitlement: believing they deserve a partner, but lack the ability or motivation to engage in subdued, preliminary interpersonal relations. The "resentful stalker" strives to frighten and distress a victim, but may also experience feelings of injustice and desire revenge. The "predatory stalker" enjoys the power and control that comes from stalking.

Common characteristics among stalkers have been compiled from clinical and research studies in an attempt to understand their stalking behaviors. In spite of individual differences, the literature has found that most stalkers are male (Hall, 1998; Zona et al., 1993); there is an increased likelihood of prior criminal, psychiatric, or substance abuse histories (Hall, 1998; Meloy & Gothard, 1995; Zona et al., 1993); immigration may play an interactive role (Meloy, 1992; Zona et al., 1993); stalkers have higher intelligence than other criminals (Hall, 1998; Meloy & Gothard, 1995); defense mechanisms play a significant role in the form of denial, minimization, devaluation, and projection of blame onto the victim (Meloy & Gothard, 1995; Skoler, 1998); Axis I disorders are evidenced as substance abuse, mood disorder, sexual dysfunction or schizophrenia; and, the Axis II disorders are primarily the following:

narcissism, borderline, paranoid, and dependent personality disorder, with antisocial personality also possible, but not as common (Meloy & Gothard, 1995).

An important clinical finding is that, often within at least seven years of the pursuant stalking behavior, the stalker has experienced some type of loss such as relationship dissolution, job termination, or potential loss of a child or ill parent (Kienlen, Birmingham, Solberg, O'Ragan, & Meloy, 1997). Relatedly, the loss experienced by some occurs during the immigration process. The experience of acculturation stress and/or culture shock, coupled with the sense of loss of one's culture of origin can create what has been referred to as pathological mourning and could further produce a loss of the self (Garza-Guerrero, 1974).

In order to understand the emotionally charged anger experienced by stalkers and, in turn, their affective violence, it is important to examine the literature that looks at shame (Kaufman, 1989). Narcissistic injury (related to shame) appears to explain the intense feelings of rage toward an unrequited lover or anyone perceived as rejecting (Meloy, 1996; Meloy & Gothard, 1995; Zona et al. 1993). Stalkers may actually experience a "proneness" to feelings of shame more than what is normally experienced in the general population (Dutton & Golant, 1995).

With respect to what should be addressed in treatment with the affectively violent proximity-seeking individual, the literature suggests that problems related to loss and shame are the most profound in these individuals and should be resolved. It was hypothesized in this study that fewer symptoms (as measured by the General Sensitivity Index [GSI] of the Symptom Checklist-90-Revised [SCL-90-R]) would be present after twelve weeks compared to pretreatment measures. Secondly, it was hypothesized that those receiving Loss Therapy and Shame Therapy would demonstrate fewer of these symptoms (as measured by the GSI of the SCL-90-R) after twelve weeks than a Control Group. Finally, it was hypothesized that those receiving Shame Therapy would show less symptomatology (as measured by the GSI of the SCL-90-R) after twelve weeks than those receiving Loss Therapy.

Participants

Nineteen participants were selected from the minimum and maximum security treatment facility of the Twin Valley Psychiatric System in Columbus, Ohio, and non-randomly assigned to the Loss Therapy, Shame Therapy, or Control Group. Six (6) participants were assigned to the Shame Therapy, seven (7) to the Loss Therapy, and six (6) to the Control Group.

Procedure

The participants selected in this study were those who have sought proximity to a person (i.e., their target feels threatened, endangered, or harmed by this pursuing behavior) which was a result of attachment insecurities, delusional beliefs, feelings of shame, and/or feelings of loss. Selection of these attachment-seeking patients was based on clinical criteria founded in the research literature of Meloy (1992;1998), Dutton & Golant (1995), Kienlen (1998), Zona, Palarea, and Lane (1998) and Zona et al. (1993).

After a non-random assignment to the different experimental groups, prior to the first therapy meeting, the participants were individually given the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1977), and the Borderline Personality Organization Instrument (BPO; Oldham et al., 1985). The group therapy sessions met for one hour, once per week, for 12 weeks.

The Loss Therapy was based on the loss and mourning literature and the therapy issues of Elbirlik (1983) and theories of Bowlby (1961). The Shame Therapy was based on clinical techniques described by Kaufman (1987; 1989).

Materials

The Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1977), a 90 question assessment device, was used to assess the amount of symptoms reported by the client. The SCL-90-R measures the following symptoms with the respective subscales: Somatization (perceptions of physiological distress); Obsessive-Compulsive (ego-dystonic thoughts, impulses, and actions); Interpersonal-Sensitivity (interpersonal interactions that may manifest in discomfort or self-deprecation); Depression (dysphoria, anhedonia, thoughts of suicide); Anxiety (nervousness, heart pounding, or panic); Hostility thoughts, feelings, or actions associated with anger which include aggression, arguments, or rage; Phobic Anxiety (phobias such as agoraphobia or claustrophobia); Paranoid Ideation (projective thoughts, suspiciousness), and Psychoticism (social withdrawal, hallucinations, or thought control). The participants rated their responses on a five-point scale (0 indicating "not at all" to 4 "extremely").

The Borderline Personality Organization Instrument (BPO; Oldham et al., 1985) is a 30-item self-report questionnaire. The participants rated their responses on a five-point scale from 1 ("never true") to 5 ("always true"). Three subscales (10 items for each) were delineated: Identity Diffusion (the sense of self shows poor integration or significant others are not internalized well); Primitive Defenses (splitting, idealization, devaluation, omnipotence, denial, projection); and Reality Testing (derivation of perceptions that are based internally or externally to the individual, and judgment of personal behavior in relation to the conceptualizations of reality formed by society).

Results

Of the nineteen participants, five declined to complete the post-test questionnaire, and four participants had been discharged from the hospital before the end of the study. The attendance of the participants varied from attending two sessions to perfect attendance. In light of the sample size and increased unsystematic error, the alpha level was decreased to .01 from .05 in order to test the null hypothesis at a more stringent probability level. All comparisons were made using measures obtained from the General Sensitivity Index of the Symptom Checklist-90-Revised (SCL-90-R). Factorial analyses of variance (ANOVA) using an alpha level of .01 were performed. The findings are as follows: (1) With an alpha level of .01, the effect of group was only statistically significant at the .05 level, F (2, 354) = 3.65, p = .04. In other words, there was a significant difference at the .05 alpha level between the pre-test and the post-test for the three treatment groups; (2) The effect of treatment (i.e., the comparison of the Control Group to the two therapies, Shame Therapy and Loss Therapy) was statistically close to the .10 probability level, F (1, 261) = 2 .69, p = .11; and (3) There was no statistical difference between the Shame Therapy Group and the Loss Therapy Group, F (2, 37) = .38, p = .68. There was a trend toward decrease in reported symptoms on the SCL-90-R by those participants in the Loss Therapy Group and the Shame Therapy Group.

Differences, in the form of clinical improvements (noted in the case study discussions below), were observed during the course of this study. Such measures of improvements include attendance, quantity and quality of participation (i.e., sharing personal information, spontaneous contributions and feedback to other group members), requests/questions concerning the therapy, compliance with treatment and/or the study, and positive changes in behavior.

Diagnoses

The DSM-IVAxis I diagnoses for the experimental groups were schizophrenia (*n* = 8, 42%), schizoaffective disorder (*n* = 4, 21%) and substance abuse-related disorders (secondary diagnoses) (*n* = 5, 26%), conduct disorder (*n* = 3, 16%), and major depression (*n* = 2, 11%). One patient had been diagnosed with a psychotic disorder not otherwise specified, and another patient had been diagnosed with intermittent explosive disorder. DSM-IV Axis II personality disorders were represented by either antisocial personality disorder (*n* = 3, 16%), personality disorder not otherwise specified (*n* = 1, .05%), or a borderline personality disorder (*n* = 1, .05%).

Clinical Results

An important aspect of the treatments offered to the participants was to determine whether or not a more effective state of functioning could be reached so that the patients would gain from further therapy. Clinical results in this respect determined that for the majority of the participants, this higher state of functioning was attained. Observations suggest that the majority of the participants responded positively to both types of therapy. Several individuals (from each of the two treatment groups) voiced approval and interest in the type of therapy being offered. Two participants in the Loss Therapy Group expressed interest in continuing this therapy once discharged into the community. Others in the Loss Therapy Group agreed with this sentiment.

Subjects in both treatment groups contributed to group interactions--participation increased in frequency over time. The Loss Therapy Group, however, generated more supportive dialogue than the Shame Therapy Group. For several of the participants in the Shame Therapy Group, it became apparent that the concepts/issues introduced may have been too abstract or beyond their scope of immediate understanding. Furthermore, although those in the Shame Therapy Group volunteered in group exercises, they did not complete "homework assignments". The Shame Therapy Group (at both the minimum and maximum security facilities) suffered from low and sporadic attendance. The attendance for the Loss Therapy Group fluctuated slightly, but maintained a consistent average of four members. Also, more personal information and supportive feedback was shared in the Loss Therapy Group, whereas the Shame Therapy Group had to utilize time toward introducing and explaining concepts and exercises.

Treatment compliance, positive change in behavior, and questions about the therapy displayed in the two treatment groups appeared equivalent. No difference could be detected.

Case Studies

Discussed below are two sample cases which were most closely akin to the established profile of stalking behavior. The names and other personal identifiers have been changed or excluded to retain confidentiality. Findings from the BPO and SCL-90-R were used to elucidate personality and symptomatology.

Case One

Charles is a 46 year old single male who had been found Not Guilty by Reason of Insanity (NGRI) for assaulting a police officer. He has been diagnosed with a "Psychotic Disorder, Not Otherwise Specified (NOS) and Personality Disorder, NOS". Previous incarcerations have been for "malicious mischief and second degree burglary and arson".

The course of Charles' treatment was as follows: initially, Charles participated frequently, but this was often seen as attempts at attention-seeking behavior. He attempted to dominate the group interactions several times and often approached the therapist after the session to discuss personal problems he perceived. To successfully remove these behaviors, it was indicated that his concerns were to be handled in the group setting. Throughout the treatment, Charles made several contributions to the group interactions: comments/opinions, feedback toward others, sharing personal information, and frequently facilitating the group discussion and exercises. Conversely, there were occasions of inattention or divided attention. Charles would often write notes for himself during the sessions; his attention would also wane when the discussion turned away from him or his personal concerns.

By the third session, Charles was sharing sensitive personal information with the group and was able to accept supportive feedback from the other group members. In general, there was clinical improvement in his interactions and involvement with the group for the first six sessions. From the seventh to the tenth session Charles refused to attend the Shame Therapy Group. During this time he was involved with litigious matters and was refusing all forms of treatment. It should be noted that he nevertheless indicated a desire to continue with the Shame Therapy Group during this time. Charles resumed his group attendance for the last two sessions. His contributions continued, as they had during the six previous sessions, indicating no decline in functioning, but during the final session some acting-out was noted in the form of light banter with another group member. It is concluded that Charles benefited from the Shame Therapy Group by learning how shaming events can influence present interpersonal situations, how to build self-esteem, and how to observe and manage his own affect and interpersonal interactions.

During the course of Charles' treatment in the Shame Therapy Group, a matrix of new clinical information and risk-taking behaviors were learned. Charles' past behaviors were found to closely approximate the interpersonal functioning of one who has engaged in affective violence, in general, and presumably stalking behavior, in particular. He described experiences of early loss as well as emotional neglect during his developmental years. This is commensurate with the stalking literature, which reports losses (i.e., separation from a parent due to death or divorce) which frequently occurs in the lives of individuals who stalk (Kienlen et al., 1997). Although Charles denied that he had engaged in stalking behaviors, he described that he had made attempts to corresponded with several celebrities. Without further information, these attempts can be seen as innocuous forms of contact or inappropriate persistent proximity-seeking behavior.

Charles was observed to fluctuate in his interactions. Initial impressions placed him as one who intellectualizes situations. However, it was noted in his hospital chart that when experiencing emotional distress, he perseverated his concerns through repeated complaints to the staff. He often used litigiousness as a means to cope, yet stated his awareness of its self-destructive potentialities. His history shows sabotaging of relationships by seeking attention and closeness, then adopting an adversarial and/or a grandiose demeanor, becoming distrustful, and relying on splitting defenses (i.e., idealizing one moment and devaluing the next). These observations are supported in his clinical results obtained with the Borderline Personality Organization Instrument (Oldham et al., 1985). The responses between the pre and post-test were similar, with relative elevations on the primitive defenses subscale (i.e., splitting, projection, denial).

Charles' responses to the SCL-90-R indicated a moderate amount of distress at the pre-test which decreased to non-clinical levels at the post-test. The level of suspiciousness in his responses was elevated and consistent from the pre-test to the post-test. There are indications of minor feelings of inadequacy and self-consciousness, as measured by the SCL-90-R, in the interpersonal realm. His overall General

Sensitivity Index scores (from the SCL-90-R) indicated a decrease in reported distress in nearly all areas to subclinical levels except Interpersonal-Sensitivity (I-S), Depression (DEP), and Paranoid Ideation (PAR).

There is no doubt that Charles learned a great deal while in the group, but might have acquired more behavioral change had the following conditions been met: regular attendance, more feedback regarding his behavior on the unit and/or during the group, and increased expression of how he was being influenced by the group/material discussed. Many of the discussions/exercises on the topic of shame directly affected his cognitive understanding.

Case Two

Frank is a 38-year-old single, male with the legal status of Incompetent To Stand Trial/Unrestorable for domestic violence toward his mother. It is documented in his patient chart that he has a history of assaults, impulsivity, explosive episodes, obsessive thoughts, and sexual preoccupation. For this research project, Frank attended the Loss Therapy Group.

The course of Frank's treatment was as follows: initially, he spoke with prompting and encouragement before sharing with the group. His responses were often monosyllabic and soft spoken, he appeared embarrassed when relating to others. Although he maintained perfect attendance and listened attentively, he persistently hesitated before participating. On the seventh session he was in an exuberant mood due to good news he had received earlier. He shared personal information, described emotions, and contributed extensively. He was praised by the group; however, he continued to exhibit embarrassment when addressed--this session was a therapeutic relationship breakthrough for Frank. For the remaining Loss Therapy sessions, this patient continued to share effectively and learned many ways to cope with loss and reported how he used them outside the group. Through the course of treatment Frank voiced his desire to help others, but he was also accepting of the support given to him by others, and in fact he was able to seek it beyond the therapy situation.

Frank is an individual who is in many ways the behavioral opposite of Charles. Where as Charles displayed many attention-seeking behaviors (i.e., complaining to staff, cursing loudly, and being litigious), with splitting defenses and intellectualization as a coping strategy, Frank typically portrayed a soft-spoken demeanor with intermittent explosive episodes upon receiving upsetting news. Additionally, Frank had a history of intrusive obsessive thoughts and sexual preoccupation, but Charles was described clinically with a decrease in sexual interests. Frank had a history of repeatedly contacting a local female personality by phone despite requests to stop. Charles had no reported/recorded stalking history.

There are similarities between Frank and Charles in that attachment issues explain much of both of their interactions. For example, they both seem to share separation-individuation conflicts, dependency problems, and proximity-seeking behaviors.

A substantial and effective change was documented in Frank's relationship interactions. The group process offered him many experiences in the form of a means of self-acceptance, psychoeducation on the meaning of loss, a forum for expressing himself appropriately, and a testing group for receiving and evaluating feedback about his behavior from his patient peers.

Discussion and Research Recommendations

Coping with Loss Therapy and Shame Therapy was examined in this study to determine treatment efficacy, to increase understanding of inpatient stalker profiles and their treatment behaviors, and to attain a more effective state of functioning for all participants.

Clinical improvements were achieved for the majority of patients along the parameters of attendance, quantity and quality of participation (i.e., sharing personal information, spontaneous contributions, and feedback to other group members), requests/questions concerning the therapy, compliance with treatment and/or the study, and positive changes in behavior.

Statistical differences were revealed between the treatment groups when pre-test and post-test scores were analyzed and when the Loss Therapy and Shame Therapy Groups were compared. However, the lack of statistically significant findings at the .01 level appear related to both the research design and the treatment-environmental variables. These research design and treatment-environmental variables are discussed below as improvement areas for future inpatient research.

Research Design Variables

1. Due to the inability to mix the civil and maximum security patient populations, the three groups could not feasibly be randomly assigned, hence these selection variables are possible explanations for the lack of significant differences at the .01 level. It is recommended that a broader range of other inpatient facilities be utilized in order to increase each treatment group size to at least twenty participants each.

2. There were small sample sizes because many patients were found to be inappropriate and thus screened from the study (i.e., brain injury, floridly psychotic, developmentally disabled, or were diagnosed as having an Antisocial Personality Disorder with the features of emotional detachment, de-realization, and psychopathy). It is suggested that subject size be increased.

3. Clinical variables (i.e., spontaneous contributions, engaging other group members in facilitative ways, sharing personal information with the group, etc.) are difficult to measure rigorously. It is recommended that an experimenter create a checklist of behaviors which can be recorded by an observer.

4. A statistical repeated baseline of data was not obtained through multiple testing with the SCL-90-R across the sessions. Instead, only a single pre-test and post-test was executed for comparison. The better course of action would be to administer the clinical assessments several times throughout experimental sessions in order to establish a baseline and multiple measures over time.

Treatment-environmental Variables

1. The participants were all inpatients and their motivations for participating in therapy were various; for example, many attended therapy in attempts to maintain treatment compliance in an effort to appear cooperative. It may be advisable to provide inducements for participation--this might ensure more consistent attendance.

2. Several patients lacked insight into their mental illness, and some of the patients expressed paranoid symptomatology, which precluded extended participation in the study. It is suggested that patients in different treatment groups be matched according to disorders, for example, those with paranoid traits, to prevent any under-representation.

3. Improvement in behaviors or symptomatology due to experimental effects was often related to the stabilization of each patient's medication regimen. Future studies should strive to stabilize patients on their medication prior to participation.

4. Other non-preventable limitations were related to availability to attend: mandatory appointments for medical clinics or court hearings; transfers/discharges; effects from physical illness or side-effects of medications; and limitations in forensic movement leading to restrictions to their unit so they could not attend therapy. Several recommendations are suggested: scheduling groups during times least likely to conflict with other activities, appointments or meetings would assure better attendance in the hospital environment; following patients after their release into the community or jail and continuing the experiment in these environments can help prevent subject attrition; and due to a high patient turnover, defined treatments in terms of average hospital length of stay days are recommended.

5. The therapy provided in this study lasted only 12 sessions. This is very brief when compared to the duration of conventional group therapies. Modifying session duration and/or frequency would maximize the overall length of the therapy and availability for extended experimentations.

6. This study administered two clinical instruments. Future studies should endeavor to learn more about stalking behaviors by offering other psychological tests or surveys including formal personality measures such as the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), or the Personality Assessment Inventory (PAI).

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