BEHAVIORAL HEALTH IN OHIO

CURRENT RESEARCH TRENDS

Volume 1 No. 1 ● June 2012

Community-Operated Service Organizations
Community-Operated Services & the Great Recession
Wellness Recovery Action Planning (WRAP)
Peer Support in Recovery

Ohio | **Department of Mental Health**

Establishing mental health as a cornerstone of overall health

Behavioral Health in Ohio ~ Current Research Trends

Through funding initiatives, research and evaluation activities and other diverse programs, ODMH remains committed to establishing mental health as a cornerstone of overall health.

Behavioral Health in Ohio: Current Research Trends is an eJournal that the Ohio Department of Mental Health (ODMH). publishes twice a year. Current and past copies of the eJournal can be accessed on our website at http://mentalhealth.ohio.gov. Click on the **"What We Do"** tab and look for **"Research and Evaluation."**

Produced by the Office of Research and Evaluation, the purpose of *Current Research Trends (CRT)* is to circulate knowledge about recently completed behavioral health research conducted in Ohio's public mental health system.

CRT eJournals are organized thematically, focusing on a single critical topic. Most of the articles in each eJournal highlight research funded in whole or in part by ODMH. However, manuscripts about behavioral health studies conducted in Ohio but not funded by ODMH are also welcomed for possible inclusion.

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OR&E Office of Research & Evaluation
Ohio Department of Mental Health

The **Office of Research and Evaluation** (ORE) conducts research and evaluation studies about Ohio's public mental health system. These studies, which are designed to address questions raised by the Ohio Department of Mental Health's leadership, focus on services and outcomes for adults with serious mental illness, children and adolescents with serious emotional disturbances, and transition-age youth. Other areas of interest include implementation and management of evidenced-based, best and promising practices, integrated physical and behavioral healthcare, and system finance. ORE also evaluates ODMH program and policy initiatives and manages the new Treatment Episode Outcomes System.

ORE regularly disseminates reports and other literature about these various studies. To access ORE publications, and research and evaluation studies conducted by ORE staff or other reports about studies funded by ODMH, visit the ORE website at http://mentalhealth.ohio.gov. Click on the **"What We Do"** tab and look for **"Research and Evaluation."**

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The cover illustration is artwork by a former patient at Summit Behavioral Healthcare in Cincinnati, OH.

Behavioral Health in Ohio

Current Research Trends

Volume 1 No. 1 ● May 2012

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Establishing mental health as a cornerstone of overall health

Moving research into practice

The mental health system is funded by federal, state and local resources, and includes a wide variety of programs and services. The collective goal is to support the well being of persons living with mental illness in each Ohio community. At the Ohio Department of Mental Health (ODMH), we must examine all available services so we can support those that are of benefit and transform those that could be better..

To address the needs of consumers, families and communities with appropriate policy, the department relies on research to evaluate ongoing behavioral health efforts. Whether we are facing a task in the present or planning for the future, our commitment to developing and delivering better services starts with the data that will inform our decision-making.

Our Office of Research and Evaluation consists of a team of professionals who promote observation and measurement of all aspects of the mental health system, whether those quests for answers are undertaken by entities we fund or conducted by researchers within the office itself. It is because of their diligence that we can rely on data to answer questions and solve problems.

The theme of this first issue of our eJournal on *Current Research Trends* is on Consumer Operated Service Organizations. ODMH considers it imperative for consumers of services and their families to be involved in policy formation and evaluation of the system of care and actively promotes their participation. Encouraging input from the grassroots groups will contribute to an understanding of the effectiveness of the public mental health system. This is especially important at a time of transformative change. Therefore, it is a primary objective of Department-funded research.

Many dynamic factors are affecting the future of the behavioral health care system, its constituents and the relationships among stakeholders. To foster high quality, cost effective public mental health services moving forward, sponsoring and conducting research is a critical activity for ODMH. I hope that you will find the various studies summarized in this first issue of value as we work together to integrate the results of our research into the ongoing operation of behavioral health programs.

Tracy J. Plouck
Director
Ohio Department of Mental Health

Improving care through evaluation

The term "research" refers to more than a continuous search for information. It is a process — a systematic, well-organized approach — a way to discover new knowledge.

Within the ODMH Division of Program and Policy Development, a team of research professionals are committed to understanding the characteristics and needs of consumers and families, particularly adults with severe mental illnesses and children with serious emotional disturbances. While all division staff members are focused on initiatives that serve as building blocks to help people recover — such as continuity of treatment, appropriate housing, access to benefits, peer support, advocacy or job training — those programs must be built upon a structure of knowledge derived from research and evaluation.

Organizational and system level information is necessary to prepare for and to assess current relationships and reactions to changing environments. By monitoring local programs and the outcomes consumers are achieving, our Office of Research and Evaluation guides policy and funding decisions, works to improve treatment, and facilitates community integration for people experiencing mental illnesses. Researchers are encouraged to consider what it means to be a consumer and to explore how consumer choice and voice are operationalized in practice.

Ohio has been an avid supporter of programs in which consumers actually become providers. I want to thank the directors of consumer-operated service organizations and the peer-support services organizations in the state whose participation made some of the research possible that we feature in this first *Current Research Trends* electronic publication. As consumers recover, these peer-led groups nurture personal growth and empowerment. How these support systems see their role, how they are seen by other parts of the system and how they can be most effective in supporting recovery can be the basis of great, innovative work in Ohio.

ODMH promotes the exchange of ideas among system collaborators and the public. The Office of Research and Evaluation actively engages and encourages researchers throughout Ohio to apply their talents and expertise to the many priority questions which remain unsolved in various areas of public mental health. We would like to hear from any researchers who wish to explore these challenges with us. Let's move beyond what we think we know to what we can empirically state as fact. The process may lead to surprising results and, ultimately, an improved public mental health system.

Debbie Nixon-Hughes, MSW, LISW-S
Deputy Director
Division of Program and Policy Development
Ohio Department of Mental Health

OR&E Office of Research & Evaluation
Ohio Department of Mental Health

Dear Colleagues:

Since 1974, the Ohio Department of Mental Health (Department) has published a bound compendium of Department-funded research called *New Research in Mental Health*. These printed volumes (18 in all) were published every two years and comprised primarily of studies in the mental health services research arena. Taking advantage of new technologies available to us, we have decided to offer the Department's research publication in a new format. This publication, now called *Behavioral Health in Ohio: Current Research Trends* will be offered as an electronic journal and published biannually instead of every two years, getting information out to the field more expeditiously. Our new eJournal will center on **themes of relevance** to the Department and its stakeholders in Ohio's public mental health system. Unlike our previous publication, all articles included in the eJournal will be about completed studies and may also include research funded by various sources, not just through the Department's research budget.

The contents of this first issue of *Behavioral Health in Ohio: Current Research Trends* highlight the continuing work of the Department in the areas of consumer-operated services and peer support. Ohio is a national leader in the peer support movement and the Department has funded a number of innovative peer support programs and supported research studies that have received national attention. Currently, there are over 60 consumer groups in Ohio that range from consumer self-help groups and peer support organizations to consumer-operated service organizations (COSOs). Thirty-five of the COSOs are certified by the Department to provide consumer-operated services. In Ohio, COSOs and other peer support organizations are an important part of the array of services available to consumers in the public health system.

The majority of the articles in this edition focus on COSOs. These are independent organizations whose administrative and financial control resides with mental health consumers who access mental health services. They differ from other behavioral health organizations in that consumers are members rather than clients, and are involved in all levels of COSO activities, including administrative and fiscal oversight. COSOs also differ from other consumer groups in that COSOs are independent, non-profit organizations, while other consumer groups usually operate under the oversight of another mental health provider or non-consumer group. COSOs provide an array of services including but not limited to social and recreational activities, referral and linkage services, support groups, and vocational and residential assistance.

This *Current Research Trends* opens with a study on the organizational structure of Ohio's COSOs. Conducted by Sandy Tanenbaum, PhD, this study examined COSO directors' perceptions of their organizations' structure and the strength of their external relationships within the broader mental health system. Findings suggest that further attention be paid to three areas: 1) resources (funding, space, and

and 3) a stronger recovery orientation in the mental health system.

The second study by Sweeney, Tanenbaum, Knudsen, and Bailey examines the impact of the Great Recession on COSOs from the perspective of COSO directors. Findings from this study suggest that during the Great Recession which officially began in December 2007 and ended in June 2009, that COSOs formed new or expanded existing partnerships with other community-based organizations to ensure that COSOs would remain viable and continue to service people with mental health issues throughout Ohio. However, these partnerships and collaborations may have adverse effects on COSO's mission and culture and may be difficult for the COSO to sustain over time.

The third article, written by Judith A. Cook, PhD et al., examines the effectiveness of the Wellness Recovery Action Planning (WRAP) program, a behavioral-health-illness self-management intervention taught by peer facilitators in eight to 12 weekly sessions. In these sessions, peer facilitators show WRAP participants, who are diagnosed with severe mental illness (SMI), how to create a wellness plan to achieve and maintain recovery. These plans include wellness, strategies, methods to identify and manage symptom and crisis triggers, and ways to cope with a psychiatric crisis. Between October 2006 and April 2008, the researchers conducted randomized trials in six large to mid-sized urban Ohio sites to determine the effects of WRAP. According to the study findings, a well-supported peer workforce can deliver this intervention in a consistent, accurate way as prescribed by WRAP to a sizeable number of individuals who have SMI symptoms. Support may include on-going monitoring of fidelity adherence, weekly group meetings, and group problem-solving about any emerging difficulties.

Thelma Silver, PhD, then explores consumer services in respite care provided by a COSO. As part of this study, consumers were interviewed about their perspectives concerning the differences in respite care

programs operated in a COSO setting and in a traditional professional mental health organization. According to interviewees, COSO peer support volunteers provided emotional and social supports, and the volunteers were considerate, available, non-judgmental, and understanding. The interviewees also noted that the COSO respite program was peaceful, caring, and quiet; offered physical supports, and provided a mutual experience benefitting the volunteer and the recipient in a reciprocal support system.

Janet Hoy, PhD and Traci Jacobs, LSW, MSSA follow with their study on the relationships of COSO "core ingredients" and better mental health recovery outcomes. The researchers used the Fidelity Assessment Common Ingredient Tool (FACIT) to explore how a COSO program's "core ingredients" relate to a person's mental health recovery. In interviews conducted by the researchers, mental health consumers receiving services from the COSO identified formal and informal peer support as the most helpful "core ingredient" in their mental health recovery journeys. Examples of formal peer support include Wellness Management and Recovery (WMR), Wellness Recovery Action Plan (WRAP), and other group education programs.

We then look at service utilization and costs associated with consumers receiving COSO services in Ohio. In this study, Elnora L. Jenkins, Sebastian R. Diaz, PhD, Paul Gorman, EdD and Gary R. Bond, PhD analyzed service utilization rates and costs associated with consumers receiving: 1) only COSO services, 2) COSO and traditional mental health services (TMHS) and 3) TMHS services only. Results from this study suggest consumers attending COSO programs as well as receiving TMHS used both types of services more than consumer receiving only one or the other type of service. This finding was contrary to the authors' hypothesis that receipt of COSO services decreases the use of TMHS. While costs associated with "dual users" were higher, the authors are quick to point out that total service costs were "modest" when compared to other types of community treatment, such as Assertive

Community Treatment (ACT). The authors suggest that average annual costs for ACT can exceed $15,000; however in the present study, those receiving both COS and TMHS services only cost $7,000. Importantly, this study was the first attempt in Ohio to formally capture costs of COSOs. As such, the study ran into a number of logistical issues and methodological limitations. Capturing service utilization and cost data was uncharted territory for many of the COSO organizations in the study. Even with the study's limitations, it is an important and critical step in further legitimizing this peer operated service in Ohio. The next study to be undertaken will examine consumer outcomes related to these COSO/TMHS service blends. This will provide Ohio with a more complete picture of the cost-effectiveness of COSO services.

This inaugural edition concludes with a study by Carol Carstens, PhD and Scott Wingenfeld, MPA. Their study examined the effect of culturally sensitive practice on treatment outcomes. Over 3,000 consumers and family members (both adult and parents/guardians of children and adolescents) completed surveys on perception of care and the cultural sensitivity of the services offered for this study. Carstens and Wingenfeld found that there was a positive relationship between culturally sensitive service delivery and higher treatment outcomes, functioning, and social connectedness. The findings further suggest that whether culturally sensitive practice is viewed as the framework for or a component of individualized, client-centered care, it is an important ingredient in consumers' evaluation of treatment outcomes. Sensitivity to consumers' beliefs, values, language, group identities, way of life and traditions is likely to foster greater engagement in the treatment process and stronger therapeutic alliances, both of which are associated with better outcomes.

As the Department of Mental Health we believe that research and evaluation are essential to advancing the quality and effectiveness of the mental health system. Through the use of properly designed research and evaluation we can develop new programmatic approaches, advance best

practices, and have a better appreciation of the needs of those we serve. I hope that you will find the topics addressed in this issue of *Behavioral Health in Ohio: Current Research Trends* interesting and informative. It is our goal that you will be able to use some of the results of the research in the ongoing operation of mental health programs throughout Ohio.

It is one of the functions of the Office of Research and Evaluation to develop linkages between problems and questions within the mental health system that need research, and universities and other resources capable of developing the research and evaluation projects that 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. As in the past, we invite continued dialogue with those in the research and evaluation community who wish to explore these challenges with us. For information about recent research and evaluation activities and possible grant opportunities, visit our website at http://mentalhealth.ohio.gov.

On a final note, we at the Department of Mental Health owe a debt of gratitude to all of the authors and contributors who made this first edition possible. Shirley Bowen, Helen Anne Sweeney, and Trudy Sharp were instrumental in the editing, design, and layout of the journal. We would also like to thank Director Tracy Plouck and Deputy Director Debbie Nixon-Hughes for their steadfast devotion to advancing the field of mental health through continued support of behavioral health services research and evaluation. Without their support the studies in this volume would not have occurred.

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CONSUMER-OPERATED SERVICE ORGANIZATIONS IN OHIO: A LOCUS FOR CITIZENSHIP

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Editor's Note: This article summarizes two previously published articles: Tanenbaum, S. J. Consumer-operated service organizations: organizational characteristics, community relationships, and the potential for citizenship. *Community Mental Health Journal*, forthcoming; and Tanenbaum, S. J. (2011). Characteristics associated with organizational independence in consumer-operated service organizations. *Journal of Psychiatric Rehabilitation 34*(3): 248-251. See also: Tanenbaum, Sandra J. (2011). Consumer-operated service organizations: citizenship as a core function and strategy for growth. Health Care Analysis 19(2): 192-205.

INTRODUCTION

Consumer-operated service organizations (COSOs) are independent organizations whose administrative and financial control resides with mental health consumers. According to a 2005 study (Goldstrom et al., 2005), over two thousand COSOs are operating in the U.S. COSOs vary in their design and in the services they offer, but in many communities they occupy an important station along the continuum of community mental health care. The research reported here contributes both empirically and conceptually to our understanding of COSOs. Based on a 2008 mail survey and follow-up interviews conducted in 2009, this study depicts the internal characteristics and external relationships of COSOs in one state. Although previous COSO research has documented these organizations' distinctive peer-to-peer approach and has produced sets of common ingredients (Johnsen, Teague, & Herr, 2005) and fidelity criteria (Mowbray, Holter, Stark, Pfeffer, & Bybee, 2005; Mowbray, Bybee, Holter, & Lewandowski, 2006), relatively little attention has been paid to COSOs in their community context. Consumers with serious mental illnesses often find themselves in communities without being of them (Ware, Hopper, Tugenborg, Dickey, & Fisher, 2007). This study, therefore, seeks to delineate opportunities COSOs provide for participation not only in the COSO itself but in relationships with the larger mental health system and with non-mental health community organizations.

Peer support among people with mental illness has been shown repeatedly to improve individual outcomes (Corrigan, 2006; Resnick & Rosenheck, 2008; Sells, Black, Davidson, & Rowe, 2008; Solomon, 2004). A recent review of the literature by Pistrang, Barker and Humphries (2008) found that in two randomized controlled trials, peer support not only improved outcomes but achieved outcomes equivalent to those resulting from professional mental health services.

In the case of COSOs specifically, a recent randomized controlled trial found that although effect size was small, consumers receiving services from both COSOs and community mental health centers (CMHCs) did significantly better on variables such as personal empowerment, social integration and symptomatology than consumers receiving CMHC services alone (Segal, Silverman, &Temkin, 2010). Previous research had also shown that consumers who participate in COSOs achieved better social functioning than those receiving only professional mental health services (Yanos, Primavera, & Knight, 2001); both the quantity and quality of COSO participation were related to a range of positive outcomes (Nelson & Lomotey, 2006; Nelson et al., 2007; Ochocka, Nelson, Janzen, & Trainor, 2006). One study found that participants at consumer-run self-help agencies experienced greater empowerment even when social functioning does not improve. The authors further concluded that structural opportunities for participation in decision-making were the most important factor in improving outcomes (Segal & Silverman, 2002). Participants listed opportunities for integration into the community at large as one of the four most helpful characteristics of COSOs (Ochocka et al., 2006).

METHODS

This research had two phases, a mail survey followed by a set of telephone interviews. The participants in both phases were directors of the organizations being studied. Study objectives were: to compile and analyze individual and aggregate organizational and environmental profiles of COSOs operating in one state. Organizational variables included the history of the organization, its leadership, structure, offerings, resources, measures of success and obstacles encountered. Environmental variables included relationships with the state mental health authority, the local mental health authority, mental health provider agencies and professionals, local organizations and community groups not specific to mental health, and statewide mental health advocacy organizations. In this study, COSOs are organizations certified as such by the Ohio Department of Mental Health. According to regulations, COSOs are independent, 501(c)3 organizations, a majority of whose governing board members are mental health consumers, i.e., recipients of mental health services.

In order to distinguish the activities of COSOs from other consumer organizations, the mail survey and interview were also conducted with peer support service organizations (PSSOs), which self-identify as such and are recognized by the statewide consumer organization (SCO) as providing peer support, among other services. PSSOs are not independent but operate under the auspices of a mental health agency or other non-consumer entity. The questions asked of COSOs and PSSOs were largely the same, although a small number were asked of only one group or the other.

Both the mail survey and telephone interview schedule were designed to complete the organizational and environmental profiles. A mail survey was chosen for the collection of primarily closed-ended responses for either dichotomous "yes/no" variables or for continuous variables represented by a Likert scale. The items included in the mail survey required relatively little clarification, and consideration was given to the low cost of data collection through the mail. Participants in the survey were also able to answer questions at their own convenience and to consult organizational records if necessary. The telephone interviews were conducted to clarify and elaborate answers to the mail survey and to allow participants to respond in their own words. They were also asked a number of open-ended questions not included in the survey.

In drafting both the survey and interview instruments, the research team reviewed the COSO literature, and in order to establish the relevance of previous study questions, solicited ideas about survey and interview items from a focus group of consumer group representatives from across the state, staff of the SCO (a non-profit organization providing advocacy, training and other support for local consumer groups of all kinds), and staff of the state mental health authority (SMHA). The final instruments included items from previous research and new questions designed to fill knowledge gaps identified by those with whom we consulted. An academic expert in the design of survey and interview questions reviewed the instruments for clarity, flow and possible design errors. A staff member from the SMHA's research office reviewed the instruments for content accuracy.

SAMPLING

The SCO provided its directory of COSOs to the research team, and this list was merged with the SMHA's list of certified COSOs. COSOs appearing on both lists constituted the original universe, N=20. Telephone calls were made to the directors (or comparable organization heads) of the COSOs to determine whether the organizations were still operating and if the directors would be willing to participate in the study. Three COSOs were no longer in existence, and these were dropped from the sample frame. They could not be replaced because for the COSOs the sample was also the universe. At least two of the 17 COSOs were located in each of the state's geographic region types (urban, suburban, rural and Appalachian as defined by the U.S. Census Bureau). Geographic sampling was deemed important to the study design both on account of possible differences in community dynamics by region type and because in this state, the capacities of local mental health boards (LMHBs) are very different in, say, urban versus Appalachian regions.

The sample for the COSO telephone interviews were drawn from the 15 COSOs whose directors responded to the mail survey. The organizations were stratified by geographic type, budget size, staffing levels and number of members. A stratified randomized sample was drawn, n = six.

The sample of PSSOs were also drawn from the SCO's directory and were stratified by type of geographic region. An initial sample of n = 20 was drawn. Five PSSOs were found to have ceased operating or merged; these were replaced with five that maintained the original geographic distribution. Four

additional PSSOs were found to have ceased operating after the survey was mailed, reducing the PSSO sample from 20 to 16 with no replacement. The fourth sample, for follow-up interviews with the PSSOs, was drawn from the 10 PSSOs that returned the survey (same process as above), for a sample of six. Owing to difficulties scheduling interviews with PSSOs, only four were completed.

DATA COLLECTION

In fall 2008, COSO directors were mailed survey packets containing a cover letter from the Principal Investigator (PI), the survey itself and instructions for its completion, and a stamped return envelope. Confidentiality was guaranteed, i.e., participants were told that no organization would be identified by name, but an identification number was attached to their survey responses so that organization-specific interview schedules could be constructed. Approximately 50% of the surveys were returned in the first 30 days, and a telephone prompt brought the final response rate to 88%.

Interview questions were both open- and closed-ended. Mail surveys from organizations drawn for the interview sample were compared with a list of potential follow-up questions, and an individualized interview schedule was constructed for each respondent. So, for example, if the survey indicated that an organization's board had standing committees, the interview schedule would include questions about what committees these are and what they do. Interviews were conducted by the PI during the first half of 2009. They lasted between 30 and 60 minutes, and responses were recorded in writing by the interviewer. Approval for the project was granted by The Ohio State University Institutional Review Board.

DATA ANALYSIS

The construction of individual and aggregate organizational profiles proceeded from the computation of descriptive statistics. Means, medians and standard deviations were calculated for mail survey responses registered on a Likert scale, and frequency counts were made for questions calling for a yes/no response. This approach was also used to compile results from closed-ended interview questions. Responses to unstructured questions were examined using the consensual qualitative research method (Hill et al., 1997). The interview transcripts were analyzed by the PI to determine domains, categories and core ideas among COSO directors. Another research team member independently reviewed the data and recommended changes; the team resolved discrepancies through consensus.

The Spearman's rank-order correlation coefficient was used to evaluate the degree of monotonic relatedness among variables, e.g., COSO budget size and services provided, that reflected organizational development. This statistic was chosen because data for at least one of the variables in the relationship was in rank-order format and the second variable was in interval/ratio format easily converted to rank-order format. In the event of ties, the results were corrected using a tie-correcting procedure to prevent understatement/overstatement of results (Sheskin, 2004).

Data analysis to reveal differences between COSOs and PSSOs used both the Mann-Whitney U and Fisher's Exact non-parametric tests (chosen owing to small sample sizes). The former test (with a continuity correction of 0.5) was used for responses to Likert-scale questions and selected others, e.g., budget size, and the latter test for yes/no questions. To minimize unsystematic error variance and to reduce the Type II error rate, the COSO/PSSO dyads were matched on geographic region, membership size, budget size and years in existence. A pair-wise deletion process was used to handle the occasional missing data for specific variables within particular pairs.

RESULTS

Organizational Variables: COSOs

There is significant variability among COSOs. They are both well established and newly organized; they have large and small budgets, memberships and service arrays. COSOs also have strong commonalities. All have been certified by the SMHA as COSOs owing to their unique organizational design—independent of professional auspices and operating as "participatory democracies" (Segal, Silverman & Temkin, 2010) with consumer-majority boards. As indicated in Table 1, some services are offered by a large majority of COSOs. For example, 80% or better of these organizations provide the following services: peer support, social activities, information and referral, classes taught by consumers, crafts, self-advocacy, mental health advocacy and wellness activities. On the other hand, only 40% offered transportation to and from the COSO or help with employment. Performance evaluation is universal, and disciplinary policies are very common.

By definition, all COSOs have governing boards. The average number of board members is 10.1,

and the requirement for consumer representation ranges from 51% to 100% of board membership. All COSOs elect their governing boards, and almost all have board committees. In interviews, COSO directors described the board's role. Most cited the responsibilities that fall to any non-profit agency board, i.e., overall governance including approval and oversight of the budget, oversight of the executive director, planning, and policy-making. In an example of policy deliberation, one COSO board, alerted to the fact that some consumer-employees were at risk of losing SSI benefits by virtue of their COSO earnings, resolved to pay such employees with gift cards that would not be deemed in determining their benefits. In another COSO, the board represents the final step in the member grievance process, and in another it is charged with making required budget cuts "fairly." A number of directors noted board members' commitment to the mission of the organization and their appreciation of its potential. Executive directors in almost two-thirds of COSOs are also consumers, although only one-quarter of COSOs require this.

The grounds for membership or exclusion from membership are fundamental to self-governance. In interviews, COSO directors described the disciplinary/exclusion policies and processes in place. Although they vary in some particulars (such as the role of the staff versus the members), every COSO stresses the personal safety of its members and makes the rules of the organization explicit to them. Sanctions are carried out in a step-wise fashion so that the most serious punishment follows repeated infractions. In most COSOs it is unlikely that a consumer will be excluded permanently, except for unrelenting threats to safety, such as physical aggression or drug abuse; rather, members and staff will set conditions for

re-inclusion. If a consumer's sanctioned behavior seems amenable to clinical care, the COSO may require it before allowing that member to return. COSO directors described the difficult balance between inclusion of consumers whose behavior may isolate them outside the COSO and exclusion of those who disturb or take advantage of members whose well-being is fragile. Most consumers come to COSOs after hearing about them from other consumers, the LMHB or a community mental health agency or provider.

Environmental Variables: COSOs

The environmental profiles of COSOs attest to the connectedness of these organizations to others inside and outside the mental health system. Again, COSOs exhibit variability and commonality, the latter being especially pronounced in their relationships within the mental health system. When asked about the relationship of the COSO to the SMHA, respondents most frequently chose the middle value "good" (33%), although 60% said either "very good" or "excellent." Almost half of COSOs receive technical assistance from the SMHA, and three-quarters or more receive moral support and networking opportunities. In interviews, COSO directors described a relationship with the SMHA organized around meeting the requirements for certification. COSOs' strategies for managing their relationships with the SMHA include compliance, cooperation, and participation in meetings or committees when invited.

COSOs rated their relationships with LMHBs very favorably, with almost four-fifths responding that they are "very good" or "excellent." Virtually every COSO receives financial assistance from the LMHB, and this funding accounts for a median 90% of COSO budgets.

Still, 80% said they receive "less" or "much less" than they need to run their organizations. In interviews, COSO directors reported a range of technical assistance activities undertaken by the LMHB on behalf of the COSO, including guidance in financial matters, help with completing reports, conducting the member satisfaction survey, and linking COSOs to other mental health and non-mental health organizations. LMHBs may help integrate COSOs into the larger mental health system by encouraging referrals from provider organizations and their use of COSO educational materials. In most cases, the COSO director sits on the LMHB or regularly attends its meetings as a non-member; COSO members may be recruited to serve on board committees. Some COSOs are treated much like other providers in LMHB brochures and websites, and are funded (or defunded) at the same rate. Beyond the mental health system, LMHBs may inform community groups about COSOs and facilitate joint projects. For their part, COSOs support their LMHBs by participating in campaigns for mental health or human services tax levies, consulting on LMHB business involving consumers, and providing or participating in crisis intervention training for law enforcement. In contrast to the SMHA, LMHBs are considered by most COSOs to have a "strong" or "very strong" commitment to organizations like theirs. COSO strategies for managing their relationships with LMHBs include honesty, communication, compliance and the drive to out-perform other mental health providers. One director described taking a stand on consumers' rights without allowing his relationship with the LMHB to become adversarial.

Every COSO reported a relationship with mental health providers, largely mental health centers but also community support networks

and private practices. Providers refer consumers to COSOs and vice versa. In interviews, relationships with providers and provider agencies were frequently described as difficult — and more tenuous than the survey data would seem to indicate. COSO directors reported that providers may ignore their organizations or even warn patients against attending COSOs. Respondents attribute this resistance to providers' disinterest and lack of understanding, as well as to their belief that consumer-operated services are not credible. The seeming discrepancy between the survey data, where referrals are frequent, and the less positive interview responses may reflect the inclusion of "other" providers in the survey question and the focus on mental health centers in interview responses. In any event, in Ohio, virtually all mental health funding comes through the LMHB, and four-fifths of COSOs reported competing with provider agencies for resources. Interviewees cited this as grounds for providers to withhold support. COSOs rely on a variety of strategies in managing their relationships with providers: to keep communicating, to be helpful to providers through referrals, to avoid criticism of providers, to be persuasive about the value of COSOs, and to ask for providers' advice even when it is thought to be unnecessary. COSOs seek to diminish any perceived threat to providers by "staying off their turf," emphasizing that each type of organization has its own role, and describing the role of COSOs as a "wrap-around" for clinical care.

Beyond the mental health system, virtually all COSOs form relationships of various kinds with other community organizations, providing and receiving assistance and undertaking joint projects. Most commonly there is help in the form of moral support (receiving 71% and providing 64%), in-

kind contributions (receiving 64% and providing 57%), and information and education (receiving 64% and providing 64%). In contrast, COSOs never provide financial support, and only 29% receive it. In interviews, COSO directors identified the community groups to whom they relate, and the organizations may be summarized as follows: churches, church groups and ministries; food banks and pantries; clothing banks; free clinics; housing authorities, coalitions, and shelters; private social service agencies; service clubs, e.g., the Kiwanis Club; law enforcement; the public school system; colleges and universities; Salvation Army and Volunteers of America; United Way; Humane Society; the county fair; nursing homes; and local public or quasi-public agencies such as the human services agency, the area agency on aging, the developmental disabilities board, and the community action agency. Some COSOs have more of such relationships and some fewer, but every COSO director offered some kind of list. Among the specific projects undertaken by COSOs and their community partners were: distribution of a children's book about bipolar disorder (with an international service club); providing COSO respite beds to accommodate homeless shelter overflow; a task force to address the local panhandling problem; a benefits bank; therapy dog visits to nursing home residents; internships and service learning opportunities; provision of a site for criminal community service sentences; myriad training opportunities; "walks" for various causes; and campaigns for the passage of tax levies.

Directors interviewed were asked about what their COSOs would need to improve upon the job they are doing. Some concerns are material — more funds, more space, more training opportunities — but respondents also stressed the

need for greater understanding of what COSOs do (especially by providers) — and for a stronger recovery orientation in the mental health system. The obstacles to acquiring this wish list include the inevitable slowness of change, mental health stigma in the larger society, and the difficulty of understanding mental health recovery from the outside. The perennial scarcities of time and money were also noted.

COSOs and PSSOs COMPARED

COSOs and PSSOs are not significantly different on a number of points, for example, the percentage of each having a consumer as director. Both have positions only a consumer can fill as employees who are part-time and full-time, paid and volunteer. As 501(c)3 organizations, all COSOs have boards, and so do 70% of PSSOs, although no PSSO requires all board members be consumers while some COSOs do. Similarly high percentages of both types of organizations report that consumers hear about them from other consumers and mental health agencies. Given a list of possible service offerings, both PSSOs and COSOs (but no single PSSO) offer them all; the most common are peer support, social activities, wellness activities, community involvement and self- and system advocacy. Forty percent of PSSOs wish to become certified as COSOs, and all COSOs interviewed began as PSSOs.

Statistically significant differences (at the .05 level unless otherwise specified) were also found, and these can be categorized as relating to either organizational structure and operations or external relationships in the mental health system and the community. In the first category, PSSOs have smaller boards, and follow-up interviews revealed that at

least one PSSO board is really just an advisory committee. COSOs are also more likely to have board committees. In follow-up interviews, one PSSO director clarified that his committees were actually a "goal" and another stated that his were ad hoc rather than standing committees. COSOs have larger budgets, with a median budget size of $200,000 compared to PSSOs' $74,500, and a larger number of revenue sources (.001). They are open more days a week and more hours a day than PSSOs; COSOs similarly have more full-time employees (.001). Congruent with their higher degree of organizational development, COSOs are more likely to evaluate their performance by means of member satisfaction surveys (.10) and outcome measures.

In the category of external relationships, consumers hear about COSOs from a larger number of sources (.10). PSSOs rate more highly than COSOs the commitment of the SMHA leadership to "organizations like yours," although one PSSO director noted that she has little contact with the SMHA because her group is part of a larger agency. In this state, virtually all mental health funding comes through the LMHB to providers and programs. COSOs are more likely than PSSOs to receive financial support from LMHBs (.10) and are more positive about the commitment of board leadership to "organizations like yours." COSOs are more likely to consider themselves in competition with provider agencies for financial resources.

COSOs have relationships with a larger number of non-mental health community organizations (.10) and are more likely to make (.10) and receive (.025) referrals to and from such groups. COSOs are also more likely to give and receive technical assistance and moral support and to participate in joint projects with community organizations (.10). Among the PSSOs interviewed, two reported relationships much like those described by COSOs. One PSSO's ties, however, emphasize consumers' potential difficulties rather than their strengths: local merchants monitor members' behavior and report to the director if they misbehave.

In interviews, PSSO directors were asked about the obstacles to becoming a COSO. Two responded that they were in the process of investigating COSO status or had it as a goal. Of the other two, one said that the consumers in her organization were not capable of self-governance and the other that his group had so declined in recent years that he wished only for it to be what it once was.

CONCLUSION

In their analysis of mental health policy since deinstitutionalization, Mechanic and Grob (2006) argue that community mental health care failed to come to terms with two realities: that the deinstitutionalized population, and never-institutionalized people like them, are seriously mentally ill; and similarly that the state hospital provided a necessary complement of services that community mental health providers do not. These authors do not address consumer organizations of any kind; in fact they favor "disease-oriented specialized systems of care" (p. 230). COSOs, however, may be seen to respond to Mechanic and Grob's complaint: COSO membership consists of seriously mentally ill people (in various stages of recovery), and COSO services and linkages with other community groups provide the elements of hospital care that community-based clinical providers cannot, such as food, shelter, recreation, and socialization. Furthermore, because COSOs are not content to replace the hospital but also participate in the recovery movement, they provide peer support and advocacy training and, perhaps most importantly, insist on self-governance and other forms of citizenship. COSOs are not only of the community, but are valued there.

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Consumer-Operated Service Organizations and the Great Recession: Challenges to Service Delivery, Organizational Confidence, and an Independent Future

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The Great Recession, which officially began in December 2007 and ended in June 2009, is considered to be the worst economic contraction in the United States since the Great Depression of the 1930s (NBER; Hodkin & Karpman, 2010). Since the onset of the Great Recession, the already over-extended public mental health system has confronted the competing challenges of increased service demand and reduced public funding to finance these services (Hodkin & Karpman, 2010; Abramson, 2009). The public mental health system is, by nature, extremely sensitive to local conditions, such as the population's needs for services, the economic and political environment, provider availability, the extent of health insurance coverage, and state/local support for the care of the mentally ill (Hogan, 1999; Abramson, 2009). Because of this local sensitivity, strategic responses to external events, like economic downturns, are often developed locally (Baxter & Mechanic, 1997). The research presented in this paper examines both the perceptions by consumer-operated service organi-zations (COSOs) of the recent economic downturn's impact on their internal and external environments and the actual adaptive strategies developed and implemented by these organizations during the recession.

When analyzing the effects of recessions on the mental health system, researchers have typically studied the relationship between the economic downturn and the increased prevalence of mental health symptoms in the population (Goldman-Mellor, Saxton & Catalano, 2010; Ruhm, 2003). A limited number of studies have investigated the Great Recession's impact on public funding for mental health care (Hodgkin & Karpman, 2010) and the competing challenges of increased demand and decreased funding for public health safety net services, including mental health services (Abramson, 2009). To the best of our knowledge, there have been no studies conducted on how community-based mental health providers, including COSOs, perceive their circumstances and respond to them.

BACKGROUND

In many localities, COSOs are an integral part of the continuum of community-based mental health care providers. COSOs are independent organizations, and their administrative and fiscal functions are overseen by mental health consumers who access mental health services (Tanenbaum, 2011; Wituk et al., 2008). By design, COSOs vary greatly in structural characteristics and operations, such as services offered, budget size, and types of consumers served (Tanenbaum, 2011; Hodges & Hardiman, 2006). They differ from other mental health providers in that consumers are members, rather than clients and are involved at all levels of COSO activity, including oversight of administrative and fiscal functions (Tanenbaum, 2011; Hodges & Hardiman, 2006). COSOs are also differentiated from a variety of peer support organizations in that the former are fully independent, non-profit organizations, while peer-support organizations may operate under the auspices of a mental health provider or another non-consumer entity (Tanenbaum, 2011; Hodges & Hardiman, 2006).

Peer-support services have been available in some form since the beginning of the 20th century; however, the origins of COSOs such as those studied here can be traced to the post-World War II mental health consumer movement (Beard, 2000). Factors contributing to the rise of this movement included: a growing disenchantment with the professional mental health establishment (Beard, 2000; Chamberlin & Rogers, 1990;

Chamberlin, 1978), new treatment protocols and antipsychotic medicines (Beard, 2000), and deinstitutionalization (Riesser & Schorske, 1994).

The consumer movement served as an impetus for the development of consumer-operated services (Segal & Silverman, 2002; Swarbrick, 2007). Consumers coalesced around their limited treatment options and lack of involvement in their own treatment plans. They also found fault with the mental health system as a whole and sought to reform it to the consumer's advantage (Swarbrick, 2007). Traditional mental health providers were considered not to empower consumers in their own lives and to exercise a counter-productive paternalism in their offices and the policy arena (Goffman, 1961; Chamberlin & Rogers, 1990; Swarbrick, 2007). Consumers drew on their own experiences and those of their peers to provide, independently, consumer-operated alternatives to standard community-based care (Chamberlin, 1978, 1984; Swarbrick, 2007).

Although COSOs represent a distinct type of community-based mental health organization, they may respond strategically to an external event, such as a recession, in ways similar to those of other community-based mental health organizations. Traditional mental health organizations and other public safety net organizations have adjusted to adverse external events by substituting more costly services for less costly ones (Hogan, 1999), collaborating with other agencies and organizations (Jacobsen, et al., 2005), and seeking expanded business opportunities (Norton & Lipson, 1998). COSOs, however, often lack the financial resources and technical expertise to develop adequate adaptive strategies, i.e., to be able to assess, monitor, and respond to internal and external changes (Wituk, et al., 2008). According to Clay (2005),

COSOs are always at risk of losing their funding; they typically are ranked as a low priority when funds are allocated and are the first to experience cuts when funding is reduced.

Using an environmental uncertainty framework (Bourgeois, 1985), this study examines COSO directors' perceptions of their internal and external environments and the actual adaptive strategies implemented during a recessionary period. According to Bourgeois, environmental uncertainty theory the external environment in which an organization operates is comprised of regulatory, demographic, technological, and economic components. Volatility in any component can affect operations, often requiring managers to respond strategically to manage the consequences (Bourgeois, 1985). When developing these strategies, managers must be able to assess the consequences of any given volatility, and environmental uncertainty occurs when managers cannot assess the external event's impact (Bourgeois, 1985).

Researchers relying on environmental uncertainty frameworks typically measure and analyze managers' perceptions of the effects of an event on organizational environment (Thomas & McDaniel, 1990; Sutcliffe & Huber, 1998; Chattopadhyay, Glick, & Huber, 2001). Because managers play a critical role in organizational operations, analyzing their perceptions of the environment provides an insight into the strategies deployed by an organization during a period of environmental uncertainty, such as an economic downturn (Sutcliffe & Huber, 1998). Constructs measuring managerial perceptions usually focus on: 1) instability, 2) sustainability, 3) ability to assess the impact, 4) threats to the organization's survival, and 5) organizational capacity to manage the effects (Duncan, 1972; Thomas & McDaniel, 1990; Sutcliffe

& Huber, 1998; Venkataraman & Van de Ven, 1998; Chattopadhyay, Glick, & Huber, 2001).

This article reports the results of a mail survey of directors of COSOs in Ohio. Funded by the state mental health authority (SMHA), this research sought to understand how directors of COSOs perceived the downturn's impact on their internal and external environments and what adaptive strategies were implemented during the recessionary period. An understanding of these assessments and actions, in turn, provides policymakers with information about the threats to COSOs and their members during a recession and about how government might assist COSOs under circumstances of an economic contraction or other environmental volatility.

We specifically examine the COSO director's perceptions and contemporaneous organizational changes at two points during the economic recession. Research questions addressed: To what degree do COSO directors perceive the recession as affecting their internal and external environments and their organizations' ability to moderate the effects? Do perceptions vary at the beginning of the recession and at the conclusion of the recession? What strategies were considered and implemented during the recession? Do adaptive strategies vary at the different data collection points?

METHODS

Sample

For the Time 1 survey, which was fielded between September and December 2009, the SMHA Office of Community Supports and Client Rights provided a list of 66 consumer-

operated entities comprised of mutual support groups, self-help organizations, and COSOs. To set the criteria for the sampling frame, researchers relied on the Mowbray & Moxley's (1997) typology of consumer groups to classify entities where individuals who received or are receiving mental health services control the entity's programs, business, and service offerings as COSOs. Staff from the SMHA's Office of Community Supports and Client Rights worked with the research team to eliminate entities that did not fit Mowbray & Moxley's operational definition; this yielded a list of 30 organizations. For the Time 2 survey which was fielded between April and June 2011, the sample included only those COSOs that returned a Time 1 survey.

Survey development and administration

This study utilized a self-administered survey to obtain information from COSO directors about changes that occurred during the recessionary period. A mail-in survey was chosen because most responses were close-ended and required little clarification and because data collection by mail was inexpensive. Participants were also able to answer questions at their own convenience and to consult records if necessary. Confidentiality was guaranteed, but results were not anonymous since each survey contained a unique organizational identifier linked to the organization's name for follow-up and tracking purposes.

The survey contained 90 quantitative and qualitative questions. Questions focused on: 1) demographic information (e.g., types of consumers served); 2) information about available resources and service offerings; 3) changes in service demand, 4) perceptions about the economic downturn and the

organization's capacity to manage the impact, 5) the adaptive strategies used during the recession, and 6) challenges to sustaining COSO services. Respondents' perceptions about the economic downturn were continuous variables represented by a Likert scale and included items about their perspectives concerning stability of the external environment, the threat posed by the downturn, and management's ability to handle the crisis. Questions concerning resources/service offerings, increased service demand, and adaptive strategies were dichotomous "yes/no/don't know" variables. Adaptive strategies included a list of potential partnerships that the COSO had either formed or expanded during the fiscal year as well plans for future collaborations. Questions about challenges to sustainability were open-ended, and participants provided a list of resource issues that affected the organization's ability to sustain services.

In drafting the survey instrument, researchers reviewed mental health (Tanenbaum, 2011; Tanenbaum, 2010; Goldstrom, et al., 2006; Goldstrom, et al., 2004; Panzano & Billings, 1997), public health safety net (Jacobson, et al., 2005; Norton & Lipson, 1998), and environmental uncertainty literatures (Thomas & McDaniel, 1990; Sutcliffe & Huber, 1998; Venkataraman & Van de Ven, 1998; Chattopadhyay, Glick, & Huber, 2001; Srinivasan, Rangaswamy, & Lilien, 2005). The mental health and public sector health safety net literatures provided information on strategies previously used by COSOs, traditional community-based mental health organizations, and the public health safety net system for managing external events as well as on management and capacity issues confronting COSOs. Perception constructs concerning external events were derived from the environmental uncertainty literature.

To determine the relevance of previous study questions and possible inclusion of new items, researchers solicited ideas from representatives of the SMHA and COSOs. The final instrument included items from previous studies and new questions designed to fill knowledge gaps identified by those who were consulted. SMHA staff responsible for policy implementation reviewed the instruments for content accuracy. The SMHA's Office of Research and Evaluation examined the survey instrument for clarity, flow, and possible design errors. The Ohio Department of Health's Institutional Review Board approved the survey methodology.

For Survey 1, survey packets containing a cover letter, the survey, instructions, and a stamped return envelope, were mailed to COSO directors in September 2009. Postcard reminders were sent within 30 days after the initial mailing to unresponsive organizations. Between October and December 2009, 23 or 77% of the organizations returned the survey. For Survey 2, in April 2011, survey packets were sent to organizations that returned a Time 1 survey. Telephone calls were made to unresponsive organizations within 45 days after the initial mailing. Twelve organizations returned surveys between April and June 2011.

On average, respondents who returned surveys at both time points have worked for the participating COSO 6.7 years (median = 4.5; *s.d.* = 4.8) and had been director 5.8 years (median=4.0; *s.d.* = 4.3). The participating COSOs have been in existence an average of 14.9 years (median = 11.1; *s.d.* = 12.3). All of the sampled COSOs considered adults between the ages of 19 and 64 to be their core population, while 5 or 42% also designed programs and services to meet the needs of older adults who were 65

years or older. None provided specific services to children or youth.

MEASURES

Resource Issues/Challenges Facing Agencies in Sustaining Services:

Survey participants were asked the open-ended question: "What are the three most important resource issues/challenges facing agencies in sustaining services?"

Service Demand:

Participants were asked if demand for the organization's services increased over the last 12 months.

Services Offered:

Participants were provided a list of 18 services and asked to indicate if their organization had delivered the service. Examples included "meals", "mental health advocacy", and "peer support". Services were categorized as either a "direct service" which was delivered to the COSO member or "other service" which included networking, peer support, and advocacy. Possible answers for the service questions were "yes/no/don't know".

Perceptions:

Items adapted from five environmental uncertainty scales (Thomas and McDaniel, 1990) measured at Time 1 and Time 2 managers' perceptions of the recession's effects and their organization's ability to moderate these effects (range 1-7, 1 = strongly disagree, 7 = strongly agree). The constructs included: 1) perceived instability, the degree to which the external environment was considered to be volatile; 2) perceived predictability, the degree to which the organization had the ability to process information about the recession's impact; 3) perceived sustainability, the degree to which the external environment was able to provide resources; 4) perceived hostility, the degree to which the recession adversely affected the organization's survival, and 5) perceived controllability, the extent to which the organization has the resources and autonomy to manage the consequences.

Collaborations/Partnerships:

At Time 1 and Time 2, participants provided information as to whether their organizations implemented collaborations/partnerships in FY 2009 and in FY 2011 or planned to do so in FY 2012. If so, participants were asked about the types of collaborations or partnerships, such as partnerships with other mental health providers. Responses were "yes/no/don't know".

Data Analysis

Qualitative and quantitative data were triangulated through a multi-method approach. Content analysis was used to examine the question concerning the three resource issues/challenges confronting COSOs in sustaining services (Miles & Huberman 1994). Two authors independently read the respondents' answers to the open-ended question, identified emergent themes, and developed a coding scheme through open discussion of the themes. The authors then coded responses according to the categories, and discrepancies were resolved through consensus. Responses containing more than one answer were coded into all applicable categories.

For the quantitative analysis, the Statistical Package for the Social Sciences, Version 19 software was used to generate non-parametric and descriptive statistics. Frequency counts were tabulated for "yes/no/don't know" responses concerning service demand, services, and collaborations/partnerships domains. The number of "yes" responses was divided by the total number of directors participating in the survey when summarizing results for the entire sample. Since the sample size was less than 30 and normal distribution cannot be assumed, non-parametric statistics were utilized to determine if perception rankings, the number of services offered, and the number of partnerships formed significantly changed between the two time points. Wilcoxen-signed rank tests were conducted to measure changes in the perception constructs. "Don't know" responses to perception constructs were treated as missing data and were excluded from the perception construct calculations. Chi-square tests for homogeneity were generated to determine the statistical variance in the number of service offerings and the number of partnerships formed.

RESULTS

Three Most Important Resource Issues/Challenges Facing Agencies in Sustaining Services

As shown in Table 1, at both data collection points, respondents consistently identified funding as the most important resource issue/challenge in sustaining services with 83% mentioning the issue at Time 1 and 92% at Time 2. In regards to funding issues/challenges, respondents were concerned with having adequate levels of funds "to cover expenses" and being able "[to] increase current funding [levels] to better meet the needs [of consumers]." One participant mentioned that the COSO had "requested increased

Table 1. Three Most Important Resource Issues/Challenges Facing Agencies in Sustaining Services

Theme	Time 1 # of Mentions	Time 1 # of COSO	Time 2 # of Mentions	Time 2 # of COSO	Quote
Funding	18	10	17	11	
•Adequate Funding Levels	13	7	11	6	Getting the funds to cover the expenses
• Diversified	3	3	3	2	Finding/getting new grants
Services/Programs	7	6	7	7	
• Transportation	4	4	2	2	Transportation for members
• Demand	2	2	2	2	We had a waiting list of over 200 last year and 150 more year to date.
Staffing	7	6	3	3	
• Allocation of staff Time	3	3	1	1	How to devote the staff needed to organize and implement needed fundraising projects (takes them away from other necessary duties)
• Recruitment/Retention	3	3	0	0	Offer increase pay to staff who have consistently received increases over the years
• Training	2	2	1	1	Need more staff training
Community Support	5	4	4	4	Less community support because everyone is asking for more help and monies are less
• Promotion of COSO	0	0	3	3	Demonstrating the cost is minimal for what benefits members would get out of it (exercise/medication/yoga classes)
Infrastructure	4	4	4	4	
• Information/Technology		2	2	3	Technology improvements
• Capital		2	2	1	Building improvements

Table 2. Demand: Time 1 (FY 2009) Compared to Time 2 (FY 2011)

	% "Indicating Yes"	
	Time 1 (FY 2009)	Time 2 (FY 2011)
Has demand for services increased over the last 12 months?	92%	83%
Have community level changes occurred that increased demand for the organization's services?	75%	67%
Did the COSO have difficulty in coordinating referrals to publicly-funded health clinics during the last 12 months for individuals who had physical health care problems and who lacked medical insurance?	25%	33%

allocations from the [local mental health board] for food owing to an increase in participants' need." Some respondents indicated that COSOs should diversify their funding by "finding/getting new grants" and "exploring Medicaid reform options and Medicaid managed care for more possible funding streams."

The ability to offer services and programs were the second most frequently mentioned resource issue/challenge at both data collection points. At Time 1, 50% of the respondents identified service and program issues; comments about these issues increasing slightly to 58% at Time 2. Providing transportation was more of a concern for COSO informants at Time 1, when compared to responses from Time 2. At both time points, participants mentioned that demand was increasing for services. According to one respondent,

"[w]e had a waiting list of over 200 last year and 150 more year-to-date."

Service Demand

Most informants indicated at both data collection points that service demand had increased over the previous 12-month period. (Refer to Table 2). At Time 1, 11 or 92% of the respondents stated that service demand grew over the previous 12-month period, while 10 or 83% of the respondents at Time 2 noted that demand had increased over the previous 12 months.

Services Offered

As Table 3 shows, between Time 1 and Time 2, the total number of direct services offered by COSOs differed significantly, while the number of total services tended to vary between the two time points. At Time 1, the direct service median equaled 9.0 and decreased to a

median of 6.5 services at Time 2. The median number of total services decreased from 13.5 services at Time 1 to a median of 12.5 services. The drop in total services appears to be attributable to the reduced number of direct services provided by the COSOs rather than by changes in the indirect service array.

Perceptions

Table 4 displays findings about managers' perceptions concerning the downturn's effects at Time 1 and Time 2. Results from the Wilcoxon-signed rank test indicate that controllability perceptions were significantly different and hostility perceptions tended to vary between the two time points. For the hostility construct, at Time 1, participants' median score equaled 6.0, signifying that the recession posed an economic threat to their organization's survival. At Time 2, participants' median score dropped to 5.0, indicating that participants agreed somewhat that the recession was a threat to the COSO's survival. For the controllability construct, the median score was 4.9 at Time 1, signifying that participants agreed somewhat their COSO had the capacity to manage the effects of the recession. The controllability median score decreased at Time 2 to 2.9, suggesting that the respondents disagreed somewhat that their organization had the ability to manage the downturn's impact.

Collaborations

To manage the recession's effects, the 12 participating COSOs collaborated with private, public, and non-profit sectors entities. (Refer to Table 5). All participating COSOs initiated/expanded partnerships at Time 1, and 11 or 92% did so at Time 2. The number of collaborations

varied significantly between the two data collection points. At Time 1, the median number of collaborations was equal to three, increasing to a median of five collaborations at Time 2. At both time points, COSOs were most likely to partner with other mental health providers (Time 1: 92%; Time 2: 83%), other COSOs (Time 1: 83%; Time 2: 92%), and mental health advocacy

organizations (Time 1: 75%; Time 2: 75%). An increasing number of COSOs between Time 1 and Time 2 opted to collaborate with local schools, the criminal justice system/local courts, primary health providers, and county departments of social services.

Table 3. Services Offered: Time 1 (FY 2009) Compared to Time 2 (FY 2011)

	Time 1			Time 2			Significance
Services	Mean	Median	S.D.	Mean	Median	S.D.	
Total Services	13.7	13.5	2.9	13.0	12.5	2.9	0.014**
Direct Services	7.3	8.0	1.9	7.0	6.5	1.9	0.094*
Other Services	6.4	7.0	1.7	6.0	6.5	1.8	0.40

*p < 0.10, **p < 0.05

Table 4. Comparison of Perceptions: Time 1(FY 2009) to Time 2 (FY 2011)

	Time 1			Time 2			
Construct	Mean	Median	S.D.	Mean	Median	S.D.	Significance
Instability	3.2	3.0	1.8	3.4	3.4	1.5	0.319
Predictability	4.0	4.4	1.8	4.4	4.4	1.1	0.179
Sustainability	4.2	4.3	1.5	4.4	4.4	1.1	0.392
Hostility	5.5	6.0	1.0	5.0	5.0	0.9	0.09*
Controllability	4.2	4.9	1.9	3.4	2.9	1.6	0.03**

*p < 0.10, **p < 0.05

Table 5. Collaborative/Partnerships Formed by COSOs Time 1 (FY 2009) Compared to Time 2 (FY 2011)

	Time 1		Time 2	
Strategy	# of COSOs	% of COSOs	# of COSOs	% of COSOs
Number of COSOs using collaboratives/ partnerships	12	100%	11	92%
County Social Services	3	25%	4	33%
Criminal Justice System/Courts	3	25%	5	42%
Local Schools	0	0%	5	42%
Other Mental Health Providers	11	92%	10	83%
Federally Qualified Health Centers	2	17%	2	17%
Other COSOs	10	83%	11	92%
Primary Health Providers	3	25%	5	42%
MH Advocacy Organizations	9	75%	9	75%

DISCUSSION

At both time points, the data indicate that directors perceived their COSOs not to have adequate funding to sustain their operations. Inadequate funding is a chronic problem experienced by COSOs, even in non-recessionary business cycles (Clay et al., 2005). According to respondents in this study, inadequate financing affected their organizations' ability to sustain and expand service/program offerings when consumer demand for COSO services increased, and the data show that despite an increase in service demand, services were in fact fewer at Time 2 than at Time 1. "Direct services," such as meals, were more likely to be eliminated than were "other services," such as mental health advocacy, perhaps owing to their cost. What is not known is the impact of the service reduction and why these specific services were cut. For instance, were these direct services under-utilized or were other community-based providers able to offer the services?

Managers of entities with limited resources tend to view recessions as threats to their organizations' survival, as did the COSO respondents in this study (Chattopadhyay, Glick, & Huber, 2001). These managers tend to develop strategies to attain internal efficiencies, such as shifting resources from non-essential programs to core services, rather than engaging in external strategies. Strategies which operate in the external environment, such as partnerships with other community organizations, are inherently risky because they may entail a long-term commitment of resources. However, as a recession, continues even organizations adverse to this risk may opt for external collaborations as one of the few remaining alternatives for

managing the threat (Chattopadhyay, Glick, & Huber, 2001).

Almost all the COSOs represented in this study engaged in new and/or expanded partnerships at both time points. According to survey participants, COSOs primarily collaborated with partners within the mental health system at Time 1. As the recession continued, COSOs formed partnerships with entities outside of the mental health system, such as agencies in the criminal justice system, county social service departments, and local schools. COSOs may have opted to partner with entities outside of the mental health system once all other choices for sustaining services may have been exhausted.

Previous environmental uncertainty research has suggested a link between perceived hostility and perceived controllability (Dutton & Duncan, 1987; Dutton, & Jackson, 1987; Srinivasan, Rangaswamy, & Lilien, 2005). When managers perceive an economic downturn as being an opportunity, they will also view their organizations as having the capacity to manage the downturn's effects (Srinivasan, Rangaswamy, & Lilien, 2005). Conversely, if managers perceive the recession as being a threat, managers will also view their organizations as having less capacity to manage the consequences. For the first data point in this study, which coincided with month twelve of the recession, respondents agreed that the downturn was a threat, but also, somewhat, that their organizations had the capacity to manage the recession's effects. As the recession continued, respondents' perspectives about perceived hostility improved slightly to agreeing somewhat that the recession posed a threat. Over the same time period, however, their perceived controllability ratings dropped significantly to disagreeing somewhat that their organization had the capacity to manage the recession's effects.

Changes in perceived controllability along with consistent ratings about perceived hostility and the inability to secure funds were arguably the impetus for COSOs' decisions to reduce services and increase their collaborations with other entities outside the mental health system.

IMPLICATIONS

Implications for Consumers

The reduction in direct services provided by COSOs and the increased commitments entailed in inter-organizational collaboration may affect consumers adversely. They may face a smaller number of available service/support choices and choices of lower quality or frequency. Collaboration may entail less appropriate service choices, for example, service designs not entirely compatible with the empowerment philosophy of the COSO. According to Goldstrom et al. (2004), a COSO is typically the one public safety net entity that offers a range of services and opportunities for mental health recovery in one location. When a COSO cuts its services, consumers who are accustomed to this one-stop approach to service delivery may have to both find a readily available client slot at another organization and coordinate their own care across the fragmented safety net. Transportation arrangements to different providers may be difficult to make, and even if a service is readily available at another organization, it may not be a non-stigmatizing environment that promotes a sense of empowerment, peer support, and self-esteem.

In their quest to diversify their funding streams, COSOs may have formed partnerships that include long-term commitments to create new services, such as providing services to

specialized populations, e.g., transitional age youth. Tanenbaum (2011; 2011a) found evidence that COSOs, on an on-going basis, collaborate with traditional mental health agencies and non-mental health organizations for a variety of reasons that include referrals, information exchange, and joint projects, such as support for tax levies. These collaborations, as described by Tanenbaum (2011; 2011a) are viewed as positive since the collaborations provide opportunities for consumers to be part of their communities rather than just places to be in. However, the collaborations undertaken by the COSOs during the recession may be different in that these partnerships, in the short-run, were formed to help the COSOs address revenue shortfalls and increased demand in services. As environmental uncertainty studies suggest (Chattopadhyay, Glick, & Huber, 2001), collaborations of this nature are risky since organizations may need to shift resources from core operations to new market niches and change the organization's overall mission, policies, and culture. Shifts in resources and changes in the overall mission and culture could diminish consumers' satisfaction with COSO services and further limit their recovery options.

Implications for COSOs

The respondents' shift in perceived controllability over the recessionary period and their concerns about adequate financial resources to sustain their services point to organizational vulnerability in being able to assess, manage, and monitor external events. Studies conducted prior to the recession about COSOs' adaptive capacity (Wituk, et al., 2008; Hodges & Hardiman, 2006; Clay, et al., 2005) indicate that this vulnerability is a chronic problem rather than a result of the recession.

Based on their investigation, Wituk et al. (2008) recommend that mental health professionals and administrators assist COSOs in building adaptive capacity. This assistance included knowledge sharing, training, leadership development within the COSOs, resources shifting to COSOs, and linkage of COSOs to community-based technical assistance. However, according to Abramsom (2009), public health safety net organizations, including mental health agencies, have shifted from long-term planning activities to short-term goal setting in order to deal with increased demand and reduced resources during the recession. As a consequence, in Abramsom's opinion, the entire public safety net system became more fragmented and lost adaptive capacity that will be difficult for the system to rebuild. Given this, COSOs and other stakeholders within the mental health system may find it difficult to undertake adaptive capacity initiatives like those recommended by Wituk et al. (2008).

LIMITATIONS

The study has several limitations. First, the study only includes Ohio COSOs; findings may not necessarily be generalizable to other regions in the United States. Also, managers self-reported the data, which are therefore susceptible to bias. Finally, descriptive statistics do not allow for analysis of relationships among variables. These findings should be considered as an exploratory step in understanding strategies used by COSOs in managing externalities and a framework for further quantitative and qualitative analysis.

Additional research is suggested in several areas. It should focus on the impact of service reductions on consumers' recovery outcomes and their ability to access replacement services at other community-based entities. Future studies should collect information about new and expanded collaborative arrangements, including details about any new services and populations being served as a result of the partnerships. Since these commitments have the potential of changing a COSO's mission, culture, and core services, COSO managers may need to evaluate the degree to which consumers are satisfied with any ensuing changes in the COSO's mission and culture, the extent to which any collaboration-related shifts in resources resulted in core service reduction, outsourcing of core services, and the number of consumers who have had to find alternative services with other community-based providers. Also, it is recommended that mental health system stakeholders conduct an assessment to determine the potential steps and resources needed to address the gaps in COSOs' adaptive capacity.

CONCLUSION

Many studies have documented the value of COSOs; they offer a wide array of services/supports, a non-stigmatizing environment, and an ability to connect multiple systems of care (Tanenbaum, 2011; Goldstrom et al., 2006). Other studies (Wituk et al., 2008; Hodges and Hardiman, 2006; Clay, et al., 2005) have found that COSOs lack the necessary resources to build organizational capacity, such as the ability to assess, manage, and monitor changes in the external environment. Recommendations to strengthen COSOs infrastructure centered on the involvement of mental health professionals and administrators

in various ways (i.e., transferring resources, providing training and technical assistance, making referrals, and promoting COSO services) (Wituk et al., 2008).

None of the COSOs directors participating in this study mentioned plans to discontinue operations. However, their perspectives concerning organizational capacity to manage the recession, the types of partnerships being formed, and the reduction in services at a time when demand was increasing point to the tenuousness of their being able to sustain their core mission and services during a volatile period. State and local stakeholders who support the COSO mission are faced with a conundrum about how to involve mental health professionals and administrators to build COSO capacity, at a time when state and local subsidy has been reduced for the entire mental health system and without undercutting the independence that makes COSOs uniquely important to mental health recovery.

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RESULTS OF A RANDOMIZED CONTROLLED TRIAL OF MENTAL ILLNESS SELF-MANAGEMENT USING WELLNESS RECOVERY ACTION PLANNING

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Abstract: The purpose of this study was to determine the efficacy of a peer-led illness self-management intervention called Wellness Recovery Action Planning (WRAP) by comparing it with usual care. The primary outcome was reduction of psychiatric symptoms, with secondary outcomes of increased hopefulness, and enhanced quality of life (QOL). A total of 519 adults with severe and persistent mental illness were recruited from outpatient community mental health settings in six Ohio communities and randomly assigned to the 8-week intervention or a wait-list control condition. Outcomes were assessed at end of treatment and at 6-month follow-up using an intent-to-treat mixed-effects random regression analysis. Compared to controls, at immediate postintervention and at 6-month follow-up, WRAP participants reported: (1) significantly greater reduction over time in Brief Symptom Inventory Global Symptom Severity and Positive Symptom Total, (2) significantly greater improvement over time in hopefulness as assessed by the Hope Scale total score and subscale for goal directed hopefulness, and (3) enhanced improvement over time in QOL as assessed by the World Health Organization Quality of Life-BREF environment subscale. These results indicate that peer-delivered mental illness self-management training reduces psychiatric symptoms, enhances participants' hopefulness, and improves their QOL over time. This confirms the importance of peer-led wellness management interventions, such as **WRAP**, as part of a group of evidence-based recovery-oriented services.

Key words: illness self-management, recovery, peer-led intervention

INTRODUCTION

Illness self-management programs for people with chronic medical conditions are an important part of patient-centered care as articulated by the Institute of Medicine.[1] These programs produce positive changes in health outcomes, attitudes, and behaviors via acquisition of new information and skills to better manage troublesome symptoms, maintain higher levels of health and functioning, and enhance quality of life (QOL).[2–7] Recently developed mental illness self-management programs have extended this approach to behavioral health by imparting information, teaching wellness skills, and providing emotional support to enhance recovery.[8,9] One example is the Illness Management and Recovery (IMR) program, consisting of 3–6 months of weekly sessions delivered by mental health agency staff such as case managers or other clinicians.[10] IMR helps participants learn structured problem solving, develop personalized strategies for managing symptoms, set personal goals, and develop social support systems.[11] In a study of IMR delivered to 24 individuals,[12] participants showed significant decreases in symptom severity,

increases in recovery, improvement in functioning, and increased knowledge about mental illness at 3-month follow-up; moreover, satisfaction with the program was high. A study of IMR delivered to 324 community mental health center clients found significant increases in hope at 6-month and 12-month follow-up but no changes in satisfaction with services.[13] IMR was also evaluated among 210 individuals with severe mental illness receiving community rehabilitation using a randomized controlled trial design comparing it with treatment as usual.[14] At posttest immediately following the intervention, compared with controls, IMR participants showed increased knowledge of their illness and improved personal goal attainment but did not experience increased levels of social support.

The present study examined the efficacy of a behavioral health illness self-management intervention called Wellness Recovery Action Planning (WRAP). WRAP is typically taught by individuals in stable recovery from mental illness and is offered in 8–12 weekly sessions.[15] WRAP participants create an individualized plan to achieve and maintain recovery by learning to utilize wellness maintenance strategies, identify and manage symptoms and crisis triggers, and cope with psychiatric crises during and following their occurrence.[16] Instructional techniques promote peer modeling and support by using personal examples from peer facilitators' and students' lives to illustrate key concepts of self-management and recovery.

The process of illness self-management has its conceptual foundation in the psychological theory of self-determination.[17] In this framework, lasting health behavior change occurs through autonomous motivation in which actors experience a sense of volition, self-initiation, and endorsement of their

behavior.[18] This type of motivation occurs in autonomy supportive environments defined as settings in which health care providers understand the actor's perspective, acknowledge his/her feelings, offer choices, and provide information.[19] Also integral to the change process is perceived competence because patients who feel more competent in carrying out a health-related behavior are more likely to engage in that behavior.[20] WRAP is designed to create a safe, nonjudgmental autonomy supportive environment in which people feel motivated to manage their mental health issues, while their perceived competence for doing so is enhanced through development of a detailed and personalized WRAP plan.

The social support provided in illness self-management programs is viewed as a critical component to successful health behavior change,[21,22] and support from peer instructors may enhance the efficacy of these interventions.[23] Prior research has shown that peer support and education leads to health behavior change for patients with a number of chronic illnesses including HIV, diabetes, and asthma.[24–26] Peers who are successfully managing physical health challenges may provide others with an incentive to develop their own self-management skills and a greater sense of optimism.[27,28] Similarly, research has shown that peer support services are effective in promoting mental health recovery.[29–31] Peer support, defined broadly as interpersonal interactions and activities facilitated by peers and aimed at achieving recovery goals in affirming environments,[32] has been shown to decrease inpatient admissions, improve functioning, and reduce mental health treatment costs.[33,34]

The peer support component of WRAP has conceptual underpinnings in self-efficacy theory[35] and social comparison theory.[36] Self-efficacy or the belief that one is capable of successfully

executing behaviors that produce desired outcomes is enhanced by seeing similar others (peers) achieve gains through sustained effort.[37] In social comparison theory, upward social comparison with healthier peers provides actors with an incentive to develop their skills and a greater sense of optimism.[27,28] Studies of people with serious mental illness (SMI) show that development of a more efficacious sense of self following exposure to peers is linked to recovery.[38–40] When illness self-management is taught by peers, self-efficacy may be enhanced through positive social comparison, thereby generating hope and perceived competency for health behavior changes that promote recovery such as symptom management.

In the burgeoning field of mental illness self-management models, WRAP is probably the most widely disseminated program of its type in the United States.[41] More than 10,000 copies of the WRAP curriculum have been distributed and over 2,000 people have been trained as WRAP group facilitators by the nonprofit Copeland Center for Wellness and Recovery as of February 2011. There are 150 individuals trained as Advanced Level Facilitators who are qualified to teach others to facilitate WRAP groups. While every state in the United States has publicly funded WRAP programs, over half also have large-scale comprehensive and integrated WRAP initiatives. WRAP has also spread around the world, with extensive WRAP training and program development occurring in Canada, Japan, Hong Kong, New Zealand, Australia, England, Scotland, and Ireland.[42]

While the growth of WRAP has been impressive, it has been infrequently evaluated and reported on in the published literature.[43–46] Therefore, the purpose of the present study was to conduct a randomized controlled trial of WRAP delivered to psychiatric outpatients

by people in recovery from SMIs. The study tested the primary hypothesis that experimental group participants would experience greater symptom reduction than controls and that this effect would be maintained over time. Also tested were 2 secondary hypotheses that experimental group subjects would exhibit greater increases in hopefulness and enhanced QOL than controls and that these effects also would be maintained over time.

METHODS

Participants

Subjects were adults with SMIs who were receiving publicly funded outpatient psychiatric services in 6 Ohio communities: Canton, Cleveland, Columbus, Dayton, Lorain, and Toledo. These areas were chosen because they contained a sufficient number of certified WRAP educators, and because WRAP had not already been offered extensively there. All subjects met federal criteria for having SMI based on diagnosis, duration, and level of disability stipulated in Public Law 102–321,[47] requiring the person to have at least one 12-month disorder (other than a substance use disorder) meeting Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria[48] and to have "serious impairment" defined in the state of Ohio as having "within the past 6 months … functional limitations on a continuing or intermittent basis in major life activities that would be appropriate for the individual's developmental stage."[49] Additional inclusion criteria were being 18 years of age or older at the time of study enrollment, willing and able to provide informed consent, able to understand spoken English, and not previously exposed to WRAP education.

Recruitment was conducted with the assistance of Ohio Department of Mental Health (ODMH) administrators, the cooperation of the County Mental Health Boards in all 6 regions, and collaboration with the statewide consumer organization (Ohio Advocates for Mental Health) as well as another peer-run organization that administered state WRAP funds (Depression and Bipolar Support Alliance Ohio). From October 2006 through April 2008, individuals were recruited via clinician and peer referral, self-referral, newspaper advertisement, county mental health board Web sites, and word of mouth. The majority of recruitment activities occurred in mental health service delivery settings, including traditional treatment programs (e.g., community mental health centers, outpatient clinics, residential programs) and self-help and peer support programs (e.g., consumer-run recovery centers, mental health support groups). Local peer study coordinators made presentations at these programs about WRAP and the

research study, and encouraged interested individuals to call the study's toll-free number at the University of Illinois at Chicago (UIC) to enroll. All participants provided written informed consent to participate using procedures approved by the UIC Institutional Review Board. The study was registered at ClinicalTrials.gov under identifier NCT01024569, and all outcomes, hypotheses, and statistical analyses presented here were prespecified at the time the proposal was submitted to the federal government for funding consideration.

As shown in figure 1, 850 individuals were contacted. Of these, 295 were excluded due to refusal prior to screening, ineligibility, failure to complete the screening process, or refusal after screening but prior to randomization. A total of 555 were randomly assigned, 279 to the control (i.e., waiting list) and 276 to the experimental (i.e., intervention) conditions. Of the 276 experimental subjects, 233 (84%)
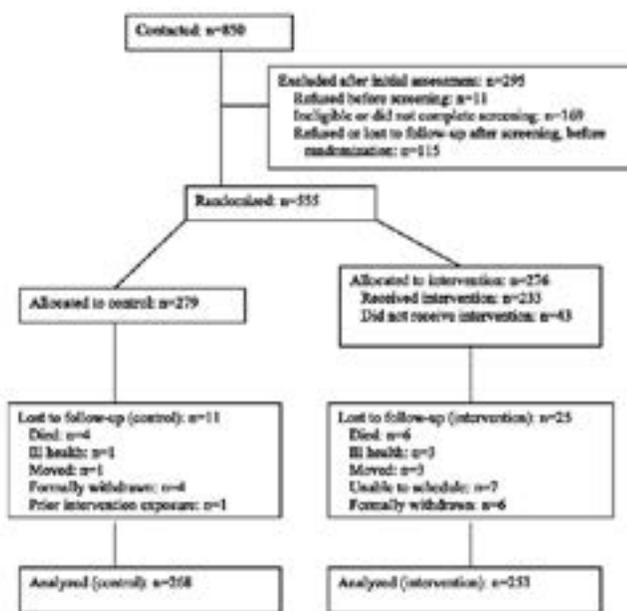
Figure 1. Recruitment and flow of participants in a study of illness self-management for people with severe and persistent mental illness.

received the intervention and 43 (16%) did not. Eleven control subjects and 25 intervention subjects were lost to follow-up with reasons including death or ill health, moving away from the area, and formal withdrawal from the study. The majority of the 25 experimental subjects lost to follow-up (68%) received no sessions of **WRAP** and only 1 (4%) attended 6 or more sessions. No other subjects were excluded from the analysis for any other reason given the "intent-to-treat" design.[50] Thus, the analyzed sample consisted of 251 in the experimental and 268 in the control condition, for a total of 519 individuals.

Intervention

The **WRAP** intervention was delivered in 8 weekly sessions of 2.5 hours that were cofacilitated by 2 peers, with a third backup educator available for emergencies. Classes were offered in accessible community settings, free of charge, with class sizes ranging from 5 to 12 participants. Coursework included lectures, group discussions, personal examples from the lives of the educators and participants, individual and group exercises, and voluntary homework assignments. An introductory session conveyed the key concepts of **WRAP** and recovery. Sessions 2 and 3 addressed development of personalized wellness strategies that can be used to maintain recovery and manage difficulties in functioning. Also included were special exercises to enhance self-esteem, build competence, and explore the benefits of peer support. The fourth session introduced a daily maintenance plan that comprised simple, inexpensive strategies to use every day to stay emotionally and physically healthy, including a plan for recognizing and responding to symptom triggers in order to prevent crises. The fifth session

educated participants about early warning signs and how these signal a need for additional support. The sixth and seventh sessions involved creation of a crisis plan specifying signs of impending crisis, names of individuals willing to help, and types of assistance preferred. The final session covered postcrisis support and the benefits of retooling **WRAP** plans after a crisis to avoid relapse.

Model fidelity was assessed weekly by use of a detailed checklist to track adherence to prescribed topics, time frames, and instructional modalities. In addition, all educators were observed on multiple occasions by one or both of the local study coordinators for quality control purposes and provision of detailed feedback. Following the National Institutes of Health Behavior Change Consortium's recommendations for enhancing treatment fidelity in health behavior research,[51] we monitored fidelity throughout the entire period of service delivery, reviewed fidelity checklist scores weekly with instructors first individually and then in a group teleconference, and followed procedures ensuring that any missed material was covered in subsequent sessions. The weekly teleconference calls convened by UIC researchers and the local statewide **WRAP** coordinators included review of each site's attendance and fidelity scores, discussion of the following week's topics and instructional methods, and group problem-solving to deal with any difficulties that had emerged.

Control Condition

Control group participants were assigned to a course waiting list and guaranteed an opportunity to receive **WRAP** from the study once their third and final interview wave ended.

Otherwise, they continued to receive services as usual. To assess the integrity of this no-treatment condition, we measured receipt of **WRAP** or other peer-support interventions at each assessment point.

Procedures

Researchers employed by the UIC Survey Research Laboratory (SRL) administered structured telephone interviews, and interviewers were blinded to respondents' study condition. These 1-hour interviews occurred at: Time 1 (T1), 6 weeks before the start of **WRAP** classes; Time 2 (T2), 6 weeks following the end of **WRAP** classes; and Time 3 (T3), 6 months post-T2. Participants received a research stipend of $20 for the first interview, $25 for the second, and $30 for the third, with a $10 bonus for completing all 3. Interviews were conducted via Computer Assisted Personal Interviewing (CAPI) software, with data downloaded into the commercially available database system SPSS Inc.[52] and analyzed using Mixed Effects Random Regression (MIXREG) software version 1.2.[53]

Randomization was performed by SRL staff at the end of each interview using a random allocation sequence programmed into CAPI administration software that allowed for complete allocation concealment up to the point of assignment.[54] Thus, both interviewers and respondents had no way of knowing each subject's study condition until after the assignment had occurred. To monitor the integrity of the blind, at the conclusion of each T2 and T3 interview, interviewers were asked whether subjects had explicitly or inadvertently revealed their actual study condition. This was found to have occurred in only 4% of all T2 and T3 interviews.

Measures

The primary outcome was reduction of psychiatric symptom severity, measured by the Brief Symptom Inventory (BSI), a patient self-report research instrument showing high concordance with clinician symptom assessment.[55] This measure was chosen due to its frequent use as an index of clinical improvement and treatment outcome in randomized trials of a wide variety of mental health interventions.[56–59] Respondents are asked how much they were bothered in the past week by 53 symptoms with a 5-point response scale ranging from "not at all" to "extremely." The BSI's Global Severity Index is designed to quantify a patient's severity of illness and provides a single composite score for measuring the outcome of a treatment program based on reducing symptom severity.[55] The BSI Positive Symptom Total captures the number of symptoms endorsed in a pathological direction, representing the total volume of different symptoms reported to be present to any degree.[60]

The second outcome was hopefulness, assessed with the Hope Scale (HS), an instrument designed to measure hope as a cross-situational long-term trait in general populations.[61] Twelve items are rated on a 4-point response scale ranging from "definitely false" to "definitely true" and summed to produce a total score. Two subscales measure belief in one's capacity to initiate and sustain actions (agency) and ability to generate routes by which goals may be reached (pathways). These 2 components of hope are assumed to be reciprocal, additive, and positively related to one another, but not synonymous, because individuals may believe in their ability to act without being aware of how to achieve a goal and vice versa.[62] Research has found HS scores to be positively associated with goal-related activities and coping strategies.[63]

The final outcome was QOL, assessed by the World Health Organization Quality of Life Brief instrument (WHOQOL-BREF).[64] We selected the environment subscale to measure this construct because of its suitability for use with people who have multiple needs[65] and because it captures dimensions specific to the posited effects of **WRAP** such as acquiring new skills and information, enhanced leisure and recreation, and feelings of security and freedom.[64] Respondents rate their experience of 8 quality indicators over the past 2 weeks using a 5-point Likert response scale, with higher scores indicating higher QOL.

Given that randomization was successful (described below), the only control variable used in the analysis was study site (also described below). Indicator variables were created for each of the sites with the Lorain site used as the contrast. The other model variables were time and the interaction of study condition by time.

Data Analysis

We began by testing the success of randomization and intercorrelations between study variables. Next, multivariate longitudinal random-effects linear regression analysis was conducted to test for differences between experimental and control subjects' outcomes over time. A 2-level random intercepts model was fitted to the data, controlling for study site as a fixed effect. This approach was chosen given the superiority of random regression models in addressing issues commonly found in longitudinal multisite data, including: (1) state dependency or serial correlations among repeated observations within individual participants, (2) individual heterogeneity or varying propensities toward the outcomes of interest due to subjects' predispositions and other unobserved influences, (3) missing observations due to the fact that not all subjects completed all assessments, and (4) inclusion of the both time-varying and fixed covariates.[66]

RESULTS

Subject Characteristics

Demographics, clinical status, and employment status of study subjects are shown in Table 1. A fifth (21%) reported diagnoses of schizophrenia or schizoaffective disorder, another 38% reported bipolar disorder, and another a quarter (25%) reported a depressive disorder. The high prevalence of Axis I diagnoses (85%) and the fact that most were not employed (85%) or married/cohabiting (88%) confirms SMI with considerable occupational and social role impairment. This is further supported by the fact that these subjects were recruited at publicly funded programs for individuals with SMI. The success of randomization was confirmed by the absence of statistically significant differences by study condition at baseline on all characteristics. We also found no significant differences (not shown) between experimental and control participants in prebaseline use of services including case management, medication management, individual therapy, group therapy, employment services, residential services, and substance abuse treatment.

Table 1. Characteristics of Participants in Each Study Condition

	Total (N = 519) n (%)	Experimental (n = 251)a n (%)	Control (n = 268)a n (%)
Sex			
Male	177 (34.1)	83 (33.1)	94 (35.1)
Female	342 (65.9)	168 (66.9)	174 (64.9)
Mean (SD) age, years	45.8 (9.88)	45.7 (9.80)	45.8 (9.97)
Race/ethnicity			
Caucasian	328 (63.2)	156 (62.2)	172 (64.2)
Black	146 (28.1)	76 (30.3)	70 (26.1)
Hispanic/Latino	25 (4.8)	11 (4.4)	14 (5.2)
Asian/Pacific Islander	3 (0.6)	2 (0.8)	1 (0.4)
American Indian/Alaskan	15 (2.9)	6 (2.4)	9 (3.4)
Other	2 (0.4)	—	2 (0.7)
Education			
<High school	95 (18.3)	44 (17.5)	51 (19.0)
High school/GED	182 (35.1)	95 (37.8)	87 (32.5)
Some college or greater	242 (46.6)	112 (44.6)	130 (48.5)
Marital status			
Married or cohabiting	62 (12.0)	26 (10.4)	36 (13.5)
All other	455 (88.0)	224 (89.6)	231 (86.5)
One or more children			
Yes	294 (57.0)	143 (57.4)	151 (56.6)
No	222 (43.0)	106 (42.6)	116 (43.4)
Lives in own home/apt.			
Yes	346 (66.7)	167 (66.5)	179 (66.8)
No	173 (33.3)	84 (33.5)	89 (33.2)
Employed			
Yes	76 (14.7)	44 (17.6)	32 (11.9)
No	442 (85.3)	206 (82.4)	236 (88.1)
Mean (SD) # in household	2.3 (2.32)	2.3 (2.28)	2.4 (2.36)
Ever psychiatric inpatient treatment			
Yes	392 (75.8)	195 (78.0)	197 (73.8)
No	125 (24.2)	55 (22.0)	70 (26.2)
DSM-IV diagnosis			
Schizophrenia	58 (11.7)	29 (11.9)	29 (11.6)
Schizoaffective	47 (9.5)	26 (10.7)	21 (8.4)
Bipolar	188 (38.1)	95 (38.9)	93 (37.2)
Depressive	125 (25.3)	60 (24.6)	65 (26.0)
Other	76 (15.4)	34 (13.9)	42 (16.8)
Services received T1–T2			
Case management	333 (72.7)	170 (75.9)	163 (69.7)
Medication management	343 (74.9)	170 (75.9)	173 (73.9)
Individual therapy	344 (75.3)	162 (72.3)	182 (78.1)
Group psychotherapy	108 (23.6)	61 (27.4)	47 (20.1)
Employment services	87 (19.0)	44 (19.6)	43 (18.4)
Residential services	77 (16.8)	40 (17.9)	37 (15.8)
Substance abuse treatment	34 (7.4)	11 (4.9)	23 (9.8)
Study site			
Canton	81 (15.6)	38 (15.1)	43 (16.0)
Cleveland	98 (18.9)	51 (20.3)	47 (17.5)
Columbus	107 (20.6)	52 (20.7)	55 (20.5)
Dayton	26 (5.0)	12 (4.8)	14 (5.2)
Lorain	110 (21.2)	53 (21.1)	57 (21.3)
Toledo	97 (18.7)	45 (17.9)	52 (19.4)

Note: T1, Study baseline; T2, 2-month follow-up; GED, General Education Development. Variations in n due to missing data.
aChi-square and analysis of variance tests revealed no significant differences by study condition.

Intervention Implementation

The intervention was delivered simultaneously across study sites, with 5 waves of classes taught over a 3-year period. At each site, **WRAP** was codelivered by 2 lead facilitators, with 1 or more backup facilitators who were available in case of illness or emergencies. Of the 20 facilitators, 85% were female and 15% male, 90% were Caucasian and 10% African American, and their average age was 48 years. All facilitators were individuals in stable recovery from a mental illness, defined as living in the community and maintaining emotional wellness through use of a personalized **WRAP** plan. Facilitators were experienced **WRAP** educators with a Mental Health Recovery Educator certificate from the Copeland Center for Wellness and Recovery and were selected by the study's local coordinators who had trained them and, in some cases, led **WRAP** groups with them. At all sites, one or both of the lead facilitators remained the same every time the intervention was offered. Four of the 6 sites delivered **WRAP** 5 times, a fifth site delivered it 4 times, and a sixth site delivered it once, during the final wave when the fifth site's facilitators were unavailable. Prior to intervention implementation, all instructors attended a 2½-day training session convened by the researchers and the study's local coordinators who are certified **WRAP** Advanced Level Facilitators. Training involved detailed review and practice of the 8-session curriculum, training on the fidelity assessment and attendance tracking procedures, and discussion of research procedures and related logistical issues.

The **WRAP** fidelity assessment tool was developed by one of **WRAP**'s authors (M.E.C) and UIC investigators (J.A.J. and J.A.C.) and administered following each class by the study's local coordinators (C. B. F. and W. H.). Within 48 hours of each class session, local coordinators telephoned instructors and completed the assessment for that session to determine fidelity to the content prescribed for that module. Each curriculum component was scored as 1 if the prescribed element occurred and 0 otherwise. Fidelity scores were computed as the proportion of prescribed elements present for that module. Across all modules taught in all waves, total course fidelity ranged from 90.3% in wave 1 to 91.7% in wave 5, with a mean of 91.3% (SD = 0.01). There were no significant differences in course fidelity by wave ($F_{4,20} = 1.50$, $P = .24$) or by study site ($F_{5,19} = 1.86$, $P = .15$). Overall, results indicated excellent intervention fidelity.

Intervention Completion Rates

Instructors maintained attendance logs for each participant with attendance at each class coded as 1 if present (either in-person or by makeup over the telephone) and 0 otherwise. Total attendance was computed by summing attendance scores for each participant. On average, participants attended 5 of 8 classes (mean = 5.05, SD = 3.08), and there were no significant differences in attendance by wave ($F_{4,271} = 1.12$, $P = .34$). However, there were significant differences in attendance by site ($F_{5,270} = 3.30$, $P = .007$), with attendance ranging from a low of 4.43 classes at one site to a high of 6.35 classes at another. Because of this, site was used as a control variable in the next phase of the analysis. The most commonly reported reasons for nonattendance were physical illness, transportation problems, and schedule conflicts.

Services As Usual Control Condition

During the 2-month intervention period, control subjects continued with the same treatment they were receiving upon study entry. As shown in Table 1, 70% reported receiving case management, 74% reported medication management, 78% individual therapy, 20% group therapy, 18% employment services, 16% residential services, and 10% substance abuse treatment. As shown in the second column of Table 1, there were no significant differences between control and experimental subjects in receipt of any of these services. Throughout the intervention period and 6-month follow-up, no **WRAP** classes were offered outside of the study in any of the host counties and, thus, the intervention was not available locally to control subjects. However, control subjects could and did participate in peer-led mental health support groups. Between T1 and T2, 41.9% of control subjects ($n = 98$) reported attending such groups, and between T2 and T3, 44.9% ($n = 97$) reported doing so. Because of this, all models were rerun controlling for exposure to peer-led support groups.

Follow-up Rates and Attrition

Of the 519 subjects who completed T1 assessments, 458 subjects (88.2%) completed T2 interviews, and 448 (86.3%) completed T3 interviews, for a combined attrition rate of 6.6%. There were no statistically significant differences in follow-up rates between intervention and control conditions. At T2, interviews were completed by 224 (89.2%) of the intervention group and 234 (87.3%) of the control group ($\chi^2_{1,1} = 0.49$, $P = .29$). At T3, assessments were completed by 220 (87.6%) of the intervention group and 228 (85.1%) of the control group ($\chi^2_{1,1} = 0.39$, $P = .23$). Finally, there were no

significant differences in completion of T2 or T3 interviews by study site.

Participant Outcomes

Table 2 shows unadjusted mean values over time for each of the 3 outcomes by study condition. Multivariable random-effects linear regression analysis (Table 3) of all 3 outcomes showed significant interactions of study condition by time. Compared with controls, experimental group participants reported significantly greater symptom reduction over time in BSI Global Symptom Severity and Positive Symptom Total. Intervention participants also reported significantly greater improvement over time than controls in their hopefulness as measured by total HS scores. Those who received **WRAP** also reported significantly greater improvement than controls in the hopefulness subscale measuring belief in one's capacity to initiate and sustain actions (agency), but not the subscale measuring belief in one's ability to devise routes by which goals may be reached (pathways). Finally, intervention participants reported significantly greater improvement than controls in QOL regarding opportunities for acquiring new skills and information, enhanced leisure and recreation, and feelings of security and freedom.

Because a substantial minority of control-condition subjects reported exposure to peer support groups, all models were rerun with a time-varying variable controlling for exposure to such groups at each time point. Results did not differ substantially from those obtained in the original MIXREG analyses, with time by study condition remaining significant in all analyses.

Because MIXREG does not provide estimates of effect size, we calculated average proportional odds ratios[67] by marginalizing the beta estimates from the MIXREG analysis to create odds ratios

Table 2. Unadjusted Mean Scores and Standard Deviations for Outcome Measures

Measure by Time Point	Intervention Mean (SD)	No.	Control Mean (SD)	No.
BSI global severity index				
Baseline	0.76 (0.72)	251	0.73 (0.73)	268
Postintervention 1	0.72 (0.64)	224	0.85 (0.70)	234
Postintervention 2	0.42 (0.61)	220	0.47 (0.67)	228
BSI positive symptom total				
Baseline	20.60 (14.67)	251	19.29 (14.09)	268
Postintervention 1	19.52 (13.74)	224	21.38 (13.68)	234
Postintervention 2	12.20 (220)	220	12.65 (15.00)	228
Hope				
Baseline	21.67 (4.66)	248	21.87 (4.42)	264
Postintervention 1	22.47 (4.39)	221	22.07 (4.06)	228
Postintervention 2	22.76 (4.68)	212	22.16 (4.21)	222
Hope—agency				
Baseline	10.62 (2.81)	249	10.67 (2.64)	266
Postintervention 1	11.20 (2.50)	223	10.88 (2.47)	231
Postintervention 2	11.33 (2.70)	215	10.92 (2.59)	223
Hope—pathways				
Baseline	11.06 (2.38)	250	11.19 (2.29)	265
Postintervention 1	11.26 (2.34)	222	11.19 (2.09)	229
Postintervention 2	11.44 (2.39)	213	11.24 (2.06)	225
WHO quality of life—environment				
Baseline	13.1 (2.94)	251	13.1 (2.74)	268
Postintervention 1	13.7 (2.97)	224	13.5 (2.79)	234
Postintervention 2	14.1 (2.83)	212	13.4 (2.97)	219

Note: BSI, Brief Symptom Inventory; WHO, World Health Organization

that have the advantage of adjusting for heterogeneity of study participants. SAS/IML software[68] was used to perform these calculations on estimates from the original MIXREG models. The estimated odds ratio for the condition by time interaction in the model predicting BSI Global Symptom Severity was 0.95 (df = 8, 510; 95% CI = 0.91–0.98), and for HS the odds ratio was 1.49 (df = 8, 510; CI = 1.47–1.51). The estimated odds ratio for the model predicting QOL was 1.48 (df = 8, 510; 95% CI = 1.32–1.65).

Finally, to address whether degree of exposure to the **WRAP** intervention was related to study outcomes, we used ordinary linear regression to predict T3 outcome scores. In an analysis restricted to experimental subjects, we examined the effect of number of **WRAP** sessions attended (ranging from 0 to 8) calculating both unadjusted B and partial-B (i.e., controlling for study site). Attendance was significant in 2 of the 3 models. For the GSI, **B** = −1.06 and partial-**B** = −1.16, indicating a 1-point decrease in symptom severity scores for each **WRAP** session attended. For the QOL, **B** = 0.19 and partial-**B** = 0.19, indicating a 0.2 unit increase in quality of life scores with each **WRAP** class attended.

Table 3. Effects of Study Condition (Intervention vs Control) on Participant Outcomes, Mixed Effects Random Regression (MIXREG) Controlling for Study Site (*N* = 519)

Outcome Variable	MIXREG Estimate[a]	SE	*P* Value
BSI global severity index			
Intercept	0.85	0.07	.000
Intervention condition	0.06	0.07	.360
Time	−0.12	0.02	.000
Intervention × time	−0.05	0.02	.023
BSI positive symptom total			
Intercept	22.29	15.09	.000
Intervention condition	1.98	1.33	.182
Time	−3.01	−8.18	.000
Intervention × time	−1.16	−2.21	.027
Hope total			
Intercept	21.79	46.68	.000
Intervention condition	−0.57	−1.21	.227
Time	0.15	1.25	.213
Intervention × time	0.40	2.37	.018
Hope—agency			
Intercept	10.69	0.28	.000
Intervention condition	−0.26	0.28	.355
Time	0.12	0.07	.089
Intervention × time	0.24	0.20	.020
Hope—pathway			
Intercept	11.07	0.24	.000
Intervention condition	−0.27	0.25	.276
Time	0.03	0.07	.607
Intervention × time	0.14	0.10	.140
WHO quality of life—environment			
Intercept	13.29	0.30	.000
Intervention condition	−0.46	0.31	.134
Time	0.09	0.08	.219
Intervention × time	0.39	0.11	.001

Note: Abbreviations are explained in the first footnote to Table 2.
[a]Estimates are unstandardized MIXREG coefficients and do not represent effect sizes; sign of coefficient indicates direction of effect.

DISCUSSION

This is the first randomized trial of **WRAP** and results show that it is an effective treatment when compared with usual community care. Psychiatric symptom severity scores are significantly reduced among **WRAP** participants compared with those receiving services as usual, while hopefulness and QOL are significantly increased among **WRAP** vs usual care recipients. Thus, a major finding of this study was that, compared to services as usual, intervention participants reported significantly greater improvement in 3 outcome areas that are widely acknowledged to be indicators of recovery. This was the case controlling for the effects of time, showing that positive changes persisted for at least 6 months after the intervention's conclusion. Results were also consistent across study site, confirming **WRAP**'s effectiveness in large- to midsize urban communities in diverse regions of a populous Midwestern state. We also found that the greater participants' exposure to **WRAP**, the more they improved on psychiatric symptom severity and hopefulness for their futures. This supports the ongoing availability of this model to ensure that participants can obtain adequate exposure to impact life outcomes.

Study results point to somewhat divergent effects of **WRAP** on the different recovery outcomes studied. On psychosocial measures of hopefulness and QOL, **WRAP** recipients reported not only significantly greater improvement relative to controls, but this advantage appeared to grow over time. On the other hand, the experimental vs control differences in symptom severity were larger between T1 and T2 and seemed to attenuate over the long term, even though **WRAP** participants were still doing better at T3 in the multivariate analysis.

Future research is needed to understand the differences between these outcomes and their relationship to other personal changes in areas such as functioning, empowerment, self-advocacy, and self-esteem. Data from the present study will be used in subsequent analyses to explore these questions and thus illuminate the subjective components of recovery.

Also noted in these results was improvement among control-condition subjects on all 3 outcomes. This may have been due to the high number of clinical services they were receiving and/or may have been due to an "anticipation effect" because controls were promised an opportunity to receive WRAP at the end of the study. The fact that noteworthy proportions of subjects in both conditions were receiving peer support at both follow-up time points may also account for both improvement among the control subjects and convergence of the symptom outcome between the 2 study conditions at T3.

Another finding inviting further explication is that regarding participants' degree of hopefulness given that observed changes in raw scores were relatively modest. However, in research on hope interventions, it is widely acknowledged that "… a statistically small change in hope may be clinically meaningful,"[69] and our intervention condition mean of 22.8 at follow-up compares well with Irving and colleagues'[70] normative sample mean of 20.7 for low-hope college women. Relative to controls, WRAP participants reported greater feelings of hope related to "agency" or their views of their own ability to influence their lives and make sustained changes. However, there were no differences by study condition in subjects' self-perceived ability to construct successful plans of action, as measured by the "pathways" subscale. This suggests that while WRAP improves confidence in one's ability to take action,

additional supports may be needed to help people make plans for rebuilding their lives in the community. These might include, e.g., access to financial resources, social support, employment services, peer supports, and health care as well as traditional clinical psychiatric services.

Regarding QOL, again changes in raw scores were somewhat modest. However, research on the clinical meaning of the WHOQOL-BREF scores shows that a one-point difference between domain scores is actually quite significant. Analysis of data from 23 countries found that scores on the environment subscale discriminated significantly between those who were ill (mean = 13.8) and those who were well (mean = 14.1).[64] Our results indicate that intervention recipients improved from a baseline mean of 13.1 (below the average for the "ill" group) to a posttest mean of 14.1 that compares favorably with the mean for the "well" group.

Another more anecdotal finding of the study was that WRAP could be delivered to a sizable population of people with SMI by their peers in successive waves with a high level of fidelity. The fact that WRAP was delivered every 3–4 months over a period of several years at greater than 90% fidelity with at least 1 educator teaching consistently at each site indicates that a well-supported peer workforce can deliver this intervention to high standards. Additional studies are needed to determine how best to develop and nurture a workforce of peer providers using models such as WRAP that support recovery on a large scale.

There are a number of study limitations that should be considered when interpreting these results. The first major caveat to our findings is that the study's subjects were not drawn from a national probability sample of individuals with severe and persistent mental illness,

which limits the generalizability of our results. A second caveat is the fact that all subjects came from a single Midwestern state, preventing an assessment of potential US regional variations in WRAP implementation and outcomes. A third caveat concerns the design of the study using a wait-list control condition. Use of an attention-control placebo would have allowed us to assess whether 8 weeks of peer interaction alone, and not the specific features of the WRAP intervention, caused the observed outcomes. A fourth caveat is that the study relied on participant self-report data that were uncorroborated by clinicians or objective observers such as research staff. Future studies using external raters and attention-control placebo interventions will offer a more rigorous evaluation of WRAP's efficacy. A fifth caveat is that fidelity assessment was limited to WRAP facilitator self-report, while the additional use of direct observation to verify the validity of self-reports would have added credibility to fidelity assessment. Another potential confound is the high level of study subjects' participation in peer-led programs and support groups, which may have exposed control-condition subjects to some of the same active ingredients as those contained in the WRAP intervention. As a result, the study may have underestimated the effects of WRAP relative to its impact in communities with low levels of peer support, as is typical in many areas of the United States. Finally, a longer time period of data collection might have revealed different findings than those attained at the end of the 8 months tracked in this study. All these limitations suggest that caution should be applied to interpretations from study results.

Study results build on prior evidence concerning the efficacy of self-management interventions taught by

clinicians but go further in demonstrating the longitudinal effectiveness of these interventions when taught by peers. **WRAP**'s focus on planning, skill building, social support, and confidence enhancement may promote perceived competence and inculcate autonomous motivation for attitudinal and behavioral changes that lead to recovery. If these specific processes are confirmed in future studies, this intervention has the potential to work in a wide variety of regions and settings.

Given research cited earlier concerning the benefits of self-management for individuals with psychiatric disabilities, findings from this study can be used to create the next generation of evidence-based models[71] that contribute to recovery and increased community integration. Additional research on **WRAP** and other peer-led programs can point us to the active ingredients in this type of intervention, and thereby inform the development of new ways for peers to promote self-determination and social participation.

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CONSUMER SERVICE DELIVERY IN RESPITE CARE: IMPACT ON CONSUMER PROVIDERS AND CONSUMER RECIPIENTS

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The promotion and evaluation of consumer-driven services in mental health has been an objective of the Ohio Department of Mental Health. This current study built on this prior research, (Roth, 1998, 2000, 2002; Silver, 2002) as it evaluated the impact of a consumer-operated respite program on the consumer providers (volunteers) and consumer recipients (guests) who were associated with this program. The President's New Freedom Commission on Mental Health (Hogan, 2003) listed as goal number one that mental health care needs to be consumer and family driven and that we need to involve consumers in orienting the mental health system towards recovery.

A number of studies have evaluated the impact of various peer support programs, and these studies have suggested that there are positive outcomes in several areas including: social support, symptom distress, personal empowerment, quality of life, utilization of hospitals, and community integration. (Roth, 2002; Kyronz & Humphreys, 1996). Some other research has stated that some benefits to consumers in providing peer support services are increased self-esteem and a sense of empowerment and hope (Salzer, 1997; Sherman & Porter, 1991).

Corrigan (2006) conducted a cross-sectional analysis to explore the relationships between recovery, empowerment, and consumer-operated services. The results indicated that peer support was strongly related to recovery and empowerment. However, the effect was small so that the researcher stated that additional research was needed.

Some research has focused on the peer relationship itself. In the research by Nelson and colleagues (2006), the participants in the peer support programs were able to describe some of the impact of the peer support relationships. The respondents stated that they were able to increase their social networks and enhance their socialization skills. They were also able to connect to others and identify with others in similar situations which helped them normalize their own situation.

Hardiman (2004) conducted 10 intensive interviews and identified five components of peer support programs: (1) sanctuary or a place of safety or refuge, (2) recovery or survival, (3) respect and humanity, (4) shared ownership or a sense of community, and (5) networks of caring and supportive interactions (p 436).

In their research, Coatsworth-Puspoky and colleagues (2006) also explored the peer support relationship through a qualitative study with 14 respondents from two consumer-led organizations. From the empirical literature they listed the characteristics of peer support to include trust, experiential knowledge related to the mental disorder, dual roles and boundaries, and relationship challenges and interactions.

Regarding the peer support relationship and the interactions in that relationship, some of the characteristics that Coatsworth-Puspoky and colleagues (2006) identified as important were empathy and understanding, listening, empowerment or being accepted by others, emotional insight, encouragement by example, and reciprocal support or mutuality. Their research also revealed that there were phases in the peer support relationship and the relationship would develop or deteriorate.

Peer support has been provided in case management services (Felton et al., 1995; Manning & Suire, 1996; Paulson et al., 1999; Sherman & Porter, 1991; Solomon, 1988), in housing programs (Besio & Mahler, 1993), on inpatient psychiatric units (McGill & Patterson, 1990), and in vocational programs (Evans & Livneh, 1992) in addition to various types of other positions in mental health programs, including as respite workers.

Traditional service agencies and peer-support organizations deliver Respite services. Typically, respite workers in both types of settings are mental health consumers. Research has found that Respite services delivered in a peer-support organizational setting leads to a sense of empowerment which impacts on the effectiveness of the service (O'Donnell, Roberts & Parker, 1998; Solomon, 2004).

Researchers have not extensively studied the relationship between mental health and Respite care (Jeon, Brodaty, O'Neill, & Chesterson, 2006). When Jeon and colleagues conducted a review of 704 published papers concerning Respite care in general, only 21 were related to Respite care for those with mental illness. Moreover, they could not locate any papers published from 2002-2005, in regards to this topic. However, a limited number of studies were identified that explored the effects of Respite care on caregivers and families. The study by Jeon and associates concluded that current Respite services were not adequate to meet the needs of persons with mental illness and their caregivers. Thus, Respite service delivery is an area that requires further study, especially in regards to the impact on consumer providers and recipients. This research focuses on this identified gap.

This study explored the impact on consumer volunteers of providing respite services in regards to the variables of self-esteem, empowerment, and peer support. The other areas of exploration were the differences in peer support that a consumer-run agency delivers from the support given by a traditional agency. The research was a collaboration between the researcher and the consumer operated agency, Foundations of Canton, Ohio. This study followed a model of participatory action research with consumers involved in planning and conducting the research.

RESEARCH HYPOTHESES

The hypotheses are:

1) The participation of mental health consumers as providers in a respite program will increase their sense of peer support, self-esteem, personal empowerment, and recovery.

2) Service recipients will perceive the peer support that they receive in a peer-operated respite program as different from the support received in professional mental health programs.

METHODOLOGY

This study utilized both a quantitative method of exploratory non-experimental surveys and a qualitative method of a semi-structured interview. All participants were adults over the age of 18 who were residents living or working in Canton, Ohio.

The interview with the Respite consumer volunteers centered on their thoughts and perceptions of their experience in the Respite. The interviews also included demographic questions and scales on empowerment (Rogers, Chamberlin, Ellison, & Crean, 1997), and recovery (The Recovery Attitudes Questionnaire, Borkin, et al., 2000; the Personal Vision of Recovery Questionnaire, Ensfield, 1998). Interviews of consumer respite workers were conducted three times over a 15-month period, as a pre-test when they began the respite position ($n = 31$), six to nine months later ($n = 15$), and then 12 to 15 months after the pre-test ($N = 7$).

A comparison group of persons who participated in peer support activities at the same consumer-run agency were interviewed as a pre-test ($n = 6$), and then six months later ($N = 3$). The interviews included the scales on empowerment (Rogers et al., 1997; Borkin et al., 2000; Ensfield, 1998) and some demographic questions.

A short qualitative interview with 39 of the Respite guests allowed for a different perspective regarding the peer support nature of the Respite program. This data focused on the perceptions in the differences in peer support that the guests received in the Respite program in relationship to traditional inpatient programs in the mental health system. The guests were only interviewed once since they were only at the Respite for up to three days.

FINDINGS & IMPLICATIONS

The results of the data analysis will be addressed in regards to the statistical analysis of the scales on empowerment and self-esteem (Rogers et al., 1997), and recovery (Borkin et al., 2000; Ensfield, 1998), the qualitative results related to empowerment, self-esteem, social support, and recovery and the qualitative results related to outlining the components of peer support.

The purpose of the statistical analysis was to compare the volunteers and the comparison group on the pre-test results and the six-month post-test results. Since the sample size was less than 30 and normal distribution cannot be assumed, non-parametric statistics were used. Thus, a Mann-Whitney U test was conducted. There was no significant difference between the volunteers ($M = 86.57$, $SD = 6.71$) and the comparison group ($M = 80.33$, $SD = 4.54$) in the participants' pre-test scores of empowerment. Unfortunately, there was too much missing data to make

any comparison on the post-test or to compare the variable of recovery.

A Wilcoxon signed-rank test was conducted to assess whether the mean scores of self-esteem, empowerment, and recovery (RAQ; PVR) in the pre-test, 1st post- and the 2nd post-test of the volunteers were different, but no significant differences were found. In assessing the group of volunteers who volunteered for 12 months, in a comparison of the pre-test and 2nd post-test there was no significant difference found. A Friedman test was conducted to examine differences among the related three groups (pre, 1st, 2nd post test), yet none of the results of the tests were significantly different from one another. In a comparison between pre- and two post-tests, there was no significant difference.

However, although not statistically significant, there were changes in the mean score on the empowerment scale for the seven volunteers who volunteered for at least one year. The mean increased from the pre-test ($M = 87.29$, $SD = 6.71$) to the second post-test twelve months later ($M = 90.29$, $SD = 8.10$). There was also a change in the mean score on the self-esteem sub-scale for these seven volunteers. The mean increased from 28.86, $SD = 3.98$ on the pre-test to *mean* = 30.72, $SD = 3.73$ on the post-test.

The results of the qualitative data were more noteworthy. By the time of the first post-test six months later, some Respite volunteers stated that they felt empowered. Some stated that they felt a sense of purpose; they felt capable and felt needed. Volunteering, as stated by some respondents, had helped them gain confidence, and they believed that they had helped the guests. Some thought that working in Respite had given them insight into their own lives. One respondent said that volunteering

had helped in knowing how to advocate for herself and in protecting herself.

These same themes were restated by the volunteers at the 12 month post-test. One volunteer stated, "it's made me appreciate my level of skill, my level of mental health, my level of how I can relax and help these people out." Another volunteer stated, "it's reminded me that my own recovery has come such a long way and it actually encourages me to keep doing it so I could see others come through it too."

Those who were still volunteering after one year had similar comments about the experience being "a self-esteem boost". One person also identified that she had a better appreciation of her skills, and another respondent identified that she had better decision-making abilities.

Regarding social support, by the time of the first post-test interviews at six months, some of the volunteers identified that their expectations had been met and they were receiving support from Respite staff and the Respite team. They thought that the regular team meetings, training, and groups had been helpful, and they were forming peer relationships.

When reviewing their experience after one year of volunteering, the respondents had similar comments about the social support that they were receiving. One volunteer also identified the support he received from another volunteer during their working together as the co-worker shared a different perspective of a situation. Another volunteer commented about the social support received from the guests as she learned from the situations of the guests. In relation to recovery, one volunteer stated that working with the guests reminded her to keep hope in her own life. Another stated that she was able to reflect on her own process of recovery.

Thus, unlike the statistical analysis of data which indicated no significant change in the variables, the qualitative results demonstrated that volunteering in the Respite had an impact on the participants in regards to positive changes in empowerment, self-esteem, social support, and recovery.

The second hypothesis was focused on differentiating whether peer support received at the consumer-run Respite program was different than support received at professionally run programs; these included the residential crisis center and the inpatient psychiatric hospital.

The guests who resided in the Respite program were interviewed about their experience and asked about the help and support that they may have received. The components that were identified from their responses were related to: the physical environment; emotional, social and physical support; social interactions; mutual experience; empowerment; and a sense of belonging.

The Respite guests in the study stated that the Respite was a peaceful, caring, and quiet place where they were able to rest and relax and clear their head and get help with their problems. The Respite was seen as comfortable where one had time to regroup, yet activities were readily available. One respondent appreciated that he could take his own medication. Another respondent saw the Respite as a "home away from home". The atmosphere was seen as less intense and less clinical than a mental health facility, and as a place with a positive outlook, "not feel like a caged bird".

The respondents were appreciative of the physical support provided by the Respite. It was helpful in providing shelter and food and a place to be able to go when they needed it. The Respite also provided the guests with their own space as each room was a private room.

Moreover, the Respite was also seen as providing emotional and social support. Some respite guests stated that they got help and guidance with problems and were able to look at options and resources. Other respondents stated that they received support from people who had gone through similar situations so they felt understood. A respite guest said that she received encouragement and learned how to help herself. A few respondents saw the respite peer staff as considerate and available, and some guests thought that they were made to feel as if they were important to someone.

Social interaction was another component of peer support that was identified. Some of the guests said that they wanted to talk and have someone listen, and the volunteers were willing to listen and to talk to them. Some guests said that they appreciated the one-on-one interaction and the non-judgmental attitude of the volunteers. It was helpful to deal with people when one could relate.

One of the other components of the peer support of the Respite that was identified was the mutual experience shared by the guests and the volunteers. The respondents saw the volunteers being in similar situations. One stated "everyone has issues like I do and helps them understand me better". Some of the guests thought that they had a lot in common with the volunteers, as stated by one guest; "only by experiencing it can you get a deeper understanding of it" (mental illness). One of the guests saw that she gave to the volunteers; "I get a lot of knowledge from them; they get a lot of knowledge from me".

The experience of the Respite also was empowering for some of the guests as they interacted with others with similar problems. The volunteers "helped me feel like I was somebody." Some of the respondents had a sense of belonging. "It's almost like we're in a house with roommates."

Thus, the peer support of the Respite comprised of a comfortable, relaxing, and caring atmosphere where residents were able to have their own space. They also received social and emotional support from people who understood, and were willing to listen and to engage in social interactions. Some of the guests thought that they shared a mutual experience of having much in common with the volunteers and each shared with the other. For some guests, the Respite experience also provided an empowering experience and a sense of belonging.

DISCUSSION & CONCLUSIONS

Regarding the statistical results of the study, there was no statistical significance in the differences for the volunteers in the scores on the empowerment scales or self-esteem sub-scale (Rogers et al., 1997) between the pre-test and the first post-test six months later ($n = 15$), or between the pre-test and the second post-test 12 months later. However, there was an increase in the mean on the empowerment scale from 87.2 (*SD* 6.71) on the pre-test of the seven volunteers who continued to volunteer for one year compared to their post-test score (*M* = 90.29, *SD* = 8.10) 12 months later. There was also no significant difference in any of the scores on the two recovery scales (Borkin et al., 2000; Ensfield, 1998) within the volunteer group from the pre-test to the first or second post-test.

Although the statistical analysis did not demonstrate a statistically significant change in the scores on the empowerment scale (Rogers et al., 1997) for the volunteers during the six months or 12 months of their volunteer experience, their personal interviews indicated otherwise. Even by the time of the first post-test interview of six months, the volunteers stated that they felt empowered, that they felt a sense of purpose and felt needed. At the 12 months post-test, the volunteers continued to reiterate this theme.

The qualitative results also indicated changes in the self-esteem of the volunteers, with one volunteer calling the volunteer experiences "a self-esteem boost". These volunteers also stated that they were making progress in recovery because of the volunteer experience. One stated, "knowing that I've helped someone else, as they recover, I recover." Some of the volunteers stated that the volunteering experience helped with their understanding of mental illness, including their own.

Thus, although the statistical analysis did not indicate any positive changes for the volunteers regarding empowerment, self-esteem, or recovery, the qualitative interviews reported that the volunteers saw positive changes in this area. Certainly this was a small sample which makes the analysis difficult.

As stated above, there have been mixed results reported in the research literature regarding recovery and empowerment. Corrigan (2006) reported that in his study he found that peer support was strongly related to recovery and empowerment but the effect was small. Moreover, Fukui and colleagues (2010) also reported improvement for peer group participants in relation to social support and self-esteem. On the other hand, Anthony and colleagues (2003) stated that some studies reported little effect on recovery of factors such as self-esteem and empowerment.

However, others argue that consumer services are effective. Doughty and Tse (2011) conducted a review of 29 controlled studies that focused on the effectiveness of consumer-led mental health services. They reported that these services were just as effective as traditional mental health services. They did state, however, that the studies reported varied results for the variable of recovery. Certainly, consumer service delivery does provide employment opportunities and does seem to have beneficial results in the areas of quality of life, self-efficacy, and self-esteem.

The other focus of this current study was to identify the unique qualities of peer support in a consumer mental health agency that differentiate it from support received through traditional agencies. The characteristics that were identified by the Respite guests related to the physical environment, emotional, social and physical support, social interaction, mutual experience, empowerment, and a sense of belonging. These components of the peer support of the Respite are similar to those identified in other research (Hardiman, 2004; Coatsworth-Puspoky et al., 2006)

Hardiman (2004) saw that peer support agencies provided a low-demand, accepting, and safe environment with empathy and respect. Coatsworth-Puspoky and colleagues (2006) identified trust and experiential knowledge. All of these characteristics of peer support are similar to what Respite guests stated that they saw as part of the Respite. Even though about one-half of the guests did not know beforehand that the staff were peers, they still appreciated the unique characteristics of the Respite. As one guest stated, "the volunteers helped me feel like I was somebody."

A strength of this research is that it presents personal validation about the value to persons with mental illness providing peer support Respite services to others. These peer providers state the positive impact on them, their process of recovery, and their sense of empowerment and self-esteem of being able to help others in similar situations.

The study also identifies the characteristics of peer support that were present for the guests or recipients of the services of the Respite. The components of peer support such as the mutual experience, empowerment, and a sense of belonging that were identified as part of the Respite are not characteristics that one usually finds in traditional professional mental health agencies. Thus, peer support programs, such as Respite, provide some unique ways of relating to persons with mental illness that they see as helpful to them and as different from other services in the mental health system.

A major limitation to this study was the small sample. Although, the pre-test sample of volunteers was $n = 31$, by the six months post-test it was $n = 15$ and by the twelve month post-test, it was $n = $ seven. In their research on consumer initiatives, Ochocka and colleagues (2006) also had a decrease in participation from an initial sample of 118 participants to only 27 participants who completed the 18-month interview; moreover, this small sample included both the control group of active participants ($n = 15$) and the comparison group ($n = 12$). Thus, small sample size seems to be a limitation of some longitudinal research regarding peer support in mental health.

The small sample size also may relate to the fact that the statistical analysis found no significant increase in the variables of empowerment, self-esteem, or recovery for the volunteers when comparing the pre- and post-tests.

IMPLICATIONS

The statistical analysis did not demonstrate any statistically significant impact on the volunteers of their experience providing services in the Respite in relation to empowerment, self-esteem, or recovery. However, the qualitative interviews did have some interesting findings. The testimony of the volunteers demonstrated that they thought that providing peer support had impacted on them in positive ways, in helping the process of recovery and in improving their sense of self-esteem and their personal empowerment.

In the peer support of the Respite, we can see a demonstration of the helper-therapy principle (Riessman, 1965). The volunteers not only provided peer support, but some of them stated that they also received support from the guests. Moreover, some of the guests stated that they not only received help but they thought that they provided help to the volunteers. This mutual experience in the Respite thus benefits both provider and recipient in a reciprocal support system.

The guests also identified the unique qualities of the peer support of the Respite that emphasized its safe and supportive environment. This "home away from home" provided an accepting and welcoming environment that was different from the traditional mental health agencies with the social interactions with the peers that was valued. Thus, for the guests, the Respite provided a helpful alternative service in the mental health system, a service that had a useful place in the community.

Doughty and Tse (2011) state that even though there is evidence of the effectiveness of consumer-led mental health service, the latter are limited in

use by under funding. Future research regarding consumer-led services also needs to develop to a stage of using uniform definitions including recovery oriented outcome measures. Moreover, these measures need to capture the positive impact that consumers state they receive in delivering peer support service.

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EXPLORING HOW CONSUMER-OPERATED SERVICE PROGRAM "CORE INGREDIENTS" RELATE TO MENTAL HEALTH RECOVERY

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According to the Final Report of the White House's New Freedom Commission on Mental Health (2003), the development of consumer-operated service programs (COSP), which are both used and administered by individuals living with a severe mental illness, is identified as a key priority in helping to alleviate the individual and societal burdens of mental illness. The Substance Abuse and Mental Health Services Administration (SAMHSA) has deemed COSPs an emerging best practice. SAMHSA is in the process of releasing a COSP tool kit to promote COSP development across the country (Campbell, 2008). This toolkit provides COSPs with the Fidelity Assessment Common Ingredient Tool (FACIT), created by Dr. Jean Campbell in a multi-year collaboration with COSPs.

COSPs throughout the United States utilize FACIT to conduct self-assessments in a systematic manner about their organizational structure, operations, and programs. Through this systematic assessment process, COSPs are able to identify explicitly their organizational strengths and areas for growth. This self-assessment, in turn, allows COSPs to better promote mental health recovery among members.

BACKGROUND

Benefits of Participating in Consumer-Operated Service Programs

In addition to enhanced mental health recovery (Brown et al., 2008; Corrigan, 2006), numerous related individual benefits have been associated with COSP participation, including: hope (Hodges, Hardiman & Segal, 2003); improved social functioning (Segal, Redman, & Silverman, 2000; Yanos, Primavera & Knight, 2001); expanded social networks and social support (Hall & Nelson, 1996; Hardiman, 2004; Nelson et al., 2006); increased satisfaction with traditional mental health services (Hodges et al., 2003); empowerment (Hardiman & Segal, 2003; Hodges, Hardiman & Segal, 2003; Corrigan, 2006); decreased hospital bed days (Nelson et al., 2006); increased quality of life (Nelson et al., 2006; Nelson et al., 2007); increased community integration (Nelson et al., 2007); increased instrumental role involvement, (Nelson et al., 2007), and reduced symptom distress (Nelson et al., 2007). System-level benefits related to COSP members include advocacy and education efforts (Solomon, 2004; Janzen et al., 2007).

From 1998 to 2007, SAMHSA funded the largest and arguably most rigorous study of COSPs to date. The study relied on an experimental, longitudinal multi-site design (Campbell, 2008, pp. 2-3).

According to Campbell, 1,827 adult consumers participated in a randomized control trial of eight COSPs. A research coordinating center at the Missouri Institute of Mental Health and a steering committee comprised of site investigators, government project officers, and consumers led the study. According to findings when a COSP was offered as an adjunct to traditional mental health services, participants were significantly empowered through the promotion of self-efficacy and self-esteem. As a consequence of the research, SAMHSA is currently developing the COSP KIT for national distribution.

However, such randomized controlled trials are often not feasible in evaluating COSPs due to the voluntary nature and ideology of COSPs that can be antithetical to random assignment (Solomon, 2007). Solomon (2007) suggested that given such constraints a case can be made for building evidence from methods other than randomized

controlled trials. According to Solomon (2007), COSP research needed to go beyond what consumers do in COSPs with more longitudinal, qualitative research focused on how it is done. Specifically, this research should identify and explicate the interplay between organizational and interpersonal processes in COSPs and relate these processes to members' outcomes (Solomon, 2007).

Identifying Organizational Processes/ "Core Ingredients" of COSPs

Multiple researchers and consumers have investigated what core ingredients/ processes comprise COSP operations, and these investigations have resulted in remarkably similar findings (Campbell, Dumont, & Einspahr, 1999; Solomon, 2004; MacNeil & Mead, 2005; Coatsworth, Forchuk, & Ward-Griffin, 2006; Holter et al., 2004; Mowbray et al., 2006; Campbell, 2008). As part of the SAMHSA-funded COSP Multisite Research Initiative, Campbell, Dumont, & Einspahr (1999) conducted a comprehensive review of peer support literature and identified 73 peer competency statements for the purpose of detecting the common ingredients of

COSPs and evaluating program fidelity. After identifying the competency statements, 19 peer providers across the United States were recruited to assist the research team in ranking and sorting the statements. The team organized and assigned classifications to the statements with multivariate statistics via a concept mapping program. (Campbell et al., 1999; Campbell, 2008). Using findings from the concept mapping project, the research team, including the peer support providers, subsequently developed FACIT (Campbell, 2008). SAMHSA deemed FACIT a "second-generation best practice" (http://mentalhealth.samhsa. gov/cmhs/CommunitySupport/evidence_ based/kits.asp) with FACIT being a key component of SAMHSA's COSP Evidence-Based Practice Tool Kit. This kit was scheduled for release in late 2009 (Campbell, personal communications, November 21, 2008).

FACIT (Appendix 1) assesses three core ingredient categories (structure, values, and process) of COSP operations. The three categories are further divided into subcategories, with a total of 48 performance items to be measured. Figure 1 summarizes the categories and sub-categories.

Literature supporting FACIT is summarized in the following paragraphs. In an extensive review of the literature, Solomon (2004) identified three categories of core ingredients:

- service elements
- related peer provider characteristics
- related mental health service delivery systems characteristics.

Table 1 summarizes the service elements in peer provider characteristics and the mental health service delivery system characteristics identified by Solomon. According to Solomon's evaluation of existing evidence for each of the identified ingredients, a high level of evidence was found for experiential learning, mutual benefit, and use of natural support, whereas minimal evidence was found for the remaining ingredients. Solomon (2007, p. 399) concluded that "…the strongest evidence for the critical ingredients of peer provided services is for those service elements that are not antithetical to the employment of randomized designs, whereas characteristics of peer providers and system principles rely heavily on observation"

In 2005, MacNeil and Mead conducted an ethnographic case study of a COSP. Using narrative analysis, they identified seven helping standards and related indicators, including key ingredients of shared beliefs, processes, and structural elements of the COSP. (Refer to Table 2). The identified key ingredients of share beliefs, process, and structural elements are part of the FACIT.

In a purposive sampling designed study, Mowbray and colleagues (2005), utilizing observations, documents, and director interviews from 31 COSPs, also identified similar key criteria in COSP functions. This study's research findings were used to develop the Fidelity Rating

Figure 1. FACIT Core Ingredient Categories and Subcategories (Campbell, 2008)
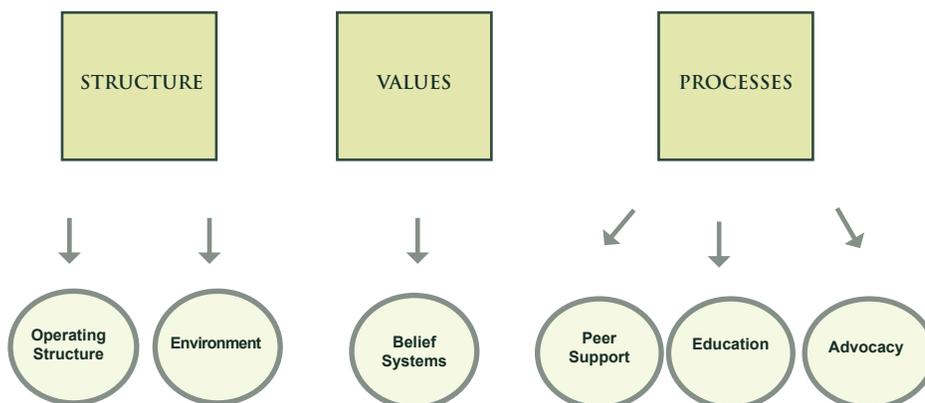
Instrument (FRI). As summarized in Table 3, FRI is similar to the FACIT instrument in terms of assessing COSP functions, and multiple COSPs in Michigan have used it (Mowbray et al., 2005). After careful consideration, we have chosen to utilize FACIT due to its SAMHSA endorsement and inclusion in its tool kit. These factors suggest that FACIT is more likely to become a nationally accepted tool, thus allowing for easier cross-site comparison of data on a national scale.

As evidenced above, various compilations of COSP core ingredients include: voluntary participation, consumer-controlled administration, opportunities for decision making, a mutual support, and beliefs related to recovery (Campbell, Dumont & Einspahr, 1999; Solomon, 2004; MacNeil & Mead, 2005; Coatsworth, Forchuk & Ward-Griffin, 2005; Holter et al., 2004; Mowbray et al., 2006; Campbell, 2008). The considerable overlap in such endeavors to identify the "core ingredients" of COSPs offers a form of cross-validation. Yet while there is substantial agreement on the "what" aspect of COSPs, the "how" in regards to how these ingredients help to facilitate recovery-related outcomes remains less clear (Solomon, 2007).

Table 1. Three Categories of Core Ingredients (Solomon, 2004)

Service elements	Characteristics of peer providers	Characteristics of mental health service delivery systems
Experiential learning	Having experience with traditional mental health services	Diversity and accessibility of types/categories of peer provided services
Use of mutual benefit	Being stable and in recovery	Reflecting cultural diversity of the community
Use of natural support	Not currently abusing substances or dependent	Availability of adjunctive and alternative peer provided services
Voluntary nature of service		
Primary control of services by individuals with psychiatric disorders		

Table 2. Seven Helping Process Standards and Sample Narrative Indicators for Peer Support (MacNeil & Mead, 2005)

Helping Standards	Sample Narrative Indicators
Critical learning and renaming of experiences are promoted	Beginning to redefine your role
Sense of community	Sense of kindredship in sharing similar experiences
Flexibility in kinds of support provided	Range of possibilities to keep people included
Activities, meetings and conversations are instructive	Collective problem-solving is encouraged
Mutual responsibility across relationships	Everyone has something valuable to share
Clarity about setting limits	Parameters of what is "tolerable dissonance" within the community are negotiated
Sophisticated levels of safety	Experienced as a safe place to be yourself

Table 3. Fidelity Rating Instrument (FRI) Criteria Items (Mowbray et al., 2005)

Item 1: Structure	Item 2: Process– belief system	Item 3: Process – opportunity role structure	Item 4: Process – social support
Voluntariness	Group empowerment	Consumer involvement	Member retention
Consumer determinants of policy, operations, planning	Practice or improve social and work-related skills	Consumer choice and decision-making	General respect
Transportation	Recovery orientation	Non-hierarchical structure	Respect for diversity
Exterior environment			Social support
Interior environment			Sense of community
Facilitating referrals			Self-help and reciprocity
Housing, transportation, education, and job assistance			
Social recreational activities			

Variations in COSP Participation Experiences

How COSP organizational ingredients combine within COSP participation experiences must vary, for participation processes and purposes are not homogenous (Hardiman & Segal, 2003; Brown et al., 2008). In a social network-focused study, Hardiman and Segal (2003) identified two types of COSP members: those seeking emotional support and those seeking concrete support, such as linkages to services, resources, etc. Members who primarily sought out emotional support tended to have more COSP peers in their social networks and were also more likely to experience organizational empowerment, e.g., empowerment mediated/facilitated through instrumental roles in the COSP (Hardiman & Segal, 2003). Brown et al. (2008) also found two differing types of participation focus in COSPs: social supportive participation and empowerment focused participation. While both participation forms were associated with recovery, social supportive participation had stronger associations (Brown et al., 2008).

Differences in COSP participation are also identifiable across gender and ethnicity spectrums (Hardiman & Segal, 2003; Hall & Nelson, 1996). African American COSP members were found to be 80% less likely to have COSP peers in their social networks and were more likely to seek concrete support rather than emotional support from others (Hardiman & Segal, 2003). Hall and Nelson (1996) in their social network-focused study found that higher numbers of female COSP members in one's social network were associated with more social support. However, female COSPs had both higher numbers of females and more negative interactions within these networks. Therefore, it has been observed that COSP participation

seems to incorporate a gender-mediated element. Because experiences of COSP members vary both by individual characteristics and by the purpose of the participation experiences, there is an apparent need for exploration with regards to how specific "core ingredients" relate to differing aspects of mental health recovery.

This article reports the results of how Gathering Hope House (GHH), a COSP located in Lorain, Ohio, in collaboration with the University of Toledo, implemented FACIT. Funded by the Ohio Department of Mental Health (ODMH) Office of Research and Evaluation, this research sought to enhance the understanding of the processes needed to implement FACIT in Ohio COSPs and what core ingredients of FACIT are related to a consumer's recovery. A better understanding of the implementation process and the relationship between FACIT and individual's recovery, in turn, provides policymakers and mental health providers with information to ensure that this tool will assist Ohio COSPs' efforts to better facilitate mental health recovery of their members.

This research specially addressed the following aims:

Aims

1) Conduct a fidelity assessment of GHH COSP's use of the FACIT instrument and related protocols.
2) Explore from a quantitative and qualitative perspective how identified "core ingredients" relate to GHH members' mental health recovery journeys.
   2A) Determine if FACIT "core ingredients" implemented at GHH correlate with key dimensions of members' mental health recoveries .

2B) Determine if GHH members are able to relate FACIT "core ingredients" to their individual, subjective mental health recovery experiences .

METHODOLOGY & FINDINGS

Aim 1: Conduct a fidelity assessment of GHH COSP's use of the FACIT instrument and related protocols.

Dr. Jean Campbell conducted an initial, two-day training on the FACIT instrument, its history, and its use in April 2010 at GHH. Participants received a workbook containing details about FACIT, its history, and use. Following the two-day training, the GHH Peer Evaluation Team (PET), comprised of two GHH members, completed its first fidelity assessment in July 2010. Per Dr. Campbell's recommendations, in order to reduce potential conflict of interest issues, PET representatives were not part of GHH's board of trustees and were not GHH employees in any ongoing capacity. PET representatives received compensation for their fidelity assessment duties.

The FACIT fidelity assessment is made up of six dimensions which examine the overall structure of the COSP, the environment, belief systems, peer support services, education services, and advocacy efforts. (Refer to Appendix 1 for specific components pertaining to each dimension). Using the assessment protocol, PET conducted the fidelity assessment by: 1) interviewing individually five line staff employees and four supervisors, 2) facilitating and taping a focus group with nine

GHH members, and 3) reviewing GHH documents.

After collecting the data, the PET members individually used a Likert scale (range "1" to "5," where "5" = "high/positive presence of attribute") to rate GHH's compliance across six dimensions. After compiling their individual ratings, PET members met and reconciled their fidelity scores across the six FACIT dimensions. Results for each dimension and sub-components are compared to national benchmark scores in Appendix 2.

As a result of the fidelity assessment, the PET generated a list of recommendations which were shared with GHH staff and members. These recommendations are summarized in Appendix 1. Recommendations focused on FACIT dimensions and sub-components that had higher and lower scores than the corresponding national benchmarks. To validate the PET's process before sharing the results with the GHH membership and staff, recommendations were presented to focus group members and interviewees. Both focus group members and interviewees unanimously endorsed the PET's findings .

Aim 2: Explore from a quantitative and qualitative perspective how "core ingredients" relate to GHH members' mental health recovery journeys .

Mental Health Recovery Measure (MHRM) Scales

The Mental Health Recovery Measure (MHRM) Scale was administered to a convenience sample of 100 GHH members. Sample demographics are displayed in Table 4. Due to missing demographic information, one case was dropped, and the final sample for analysis purposes equaled 99 members. The mean age of the sample was 46.6 years old (SD = 12.4), and more than half of the sample (55%) was female. Almost two-thirds of the sample identified as "White," while 23% considered themselves to be "Black" and 14%, "Hispanic." For the purposes of bivariate and multivariate statistics, researchers coded the variable "Race/Ethnicity" as a dummy, where "1"= minority (n = 37) and "2"= non-minority (n = 62).

Respondents rated their answers to 30 items on a Likert scale, ranging from "1" = "strongly disagree" to "5" = "strongly agree." Example of items included: "I ask for help when I am not feeling well," and "I am in control of my life." The 30 items were categorized into the following seven subscales:

1. Learning and Self-definitions
2. Advocacy/Enrichment
3. New Potentials
4. Overall Well-being
5. Basic Functioning
6. Self-empowerment
7. Overcoming Stuckness

Table 4. Sample Characteristics, N = 99

Demographic Characteristics	M (SD) % (n)
Age (years)	46.6 (12.4)
Length of Participation (years)	2.8 (1.0)
Sex	
Male	45.5% (45)
Female	54.5% (54)
Minority Status	
Identifies as minority	37.4% (37)
Does not identify as minority	62.6% (62)

Subscale scores ranged from "4" to "20" with higher scores indicating more adaptive recovery. For the sample respondents, full scale responses ranged from "30" to "150", with the sample having an average score of 117, indicating more adaptive mental health recovery.

Aim 2A: Determine if FACIT "core ingredients" correlate with key dimensions of GHH members' mental health recovery journeys.

Bivariate Results

For Aim 2A, bivariate and multivariate tests were conducted. Bivariate testing examined the mean differences in MHRM scale scores among the various demographic groups. Multivariate tests were conducted to determine if identified FACIT "core ingredients" implemented at GHH correlated with key dimensions of members' mental health recoveries .

Independent T-Tests

The research team used independent sample t-tests to determine if mean differences in the MHRM scale scores differed statistically among demographic groups. Demographic subgroups were gender (male vs. female) and minority status (minority vs non-minority). Independent sample t-tests for the sub-groups are displayed in Table 5. For exploration purposes, researchers set significance levels at 0.10 to determine whether any group differences among the various variables approached significance. Independent sample t-tests indicated that there were no significant mean differences in MHRM scale

Table 5. Bivariate Statistics for Mental Health Recovery Measure and Subscales

MHRM Subscales	Male M (SD)	Female M (SD)	Non-Minority (n = 62) M (SD)	Minority (n = 37) M (SD)	Full Sample (n = 99) M (SD)
Overcoming Stuckness	15.49** (2.65)	14.67 (3.65)	15.43† (2.93)	14.38 (3.67)	15.04 (3.25)
Self-Empowerment	15.44 (2.94)	15.76 (3.38)	16.15 (2.69)	14.72 (3.71)	15.61 (3.17)
Basic Functioning	15.07** (2.31)	14.65 (3.74)	15.19 (2.99)	14.24 (3.39)	14.84 (3.16)
Overall Well-Being	14.89 (3.74)	15.28 (3.60)	15.39 (3.66)	14.62 (3.63)	15.10 (3.65)
New Potentials	15.11 (3.05)	15.66 (3.47)	15.66 (3.09)	15.00 (3.57)	15.41 (3.28)
Advocacy/Enrichment	14.58 (3.22)	14.24 (3.97)	14.84 (3.58)	13.68 (3.64)	14.40 (3.63)
Learning and Self-Redefinition	15.98 (2.82)	16.28 (3.44)	16.41 (2.89)	15.68 (3.56)	16.14 (3.17)
Full MHRM Scale	115.83 (16.78)	117.68 (17.67)	119.41 (14.26)	112.54 (20.7)	116.84 (17.21)

Notes: † indicates marginal significance at $p < .10$ for Levene's test; ** indicates significance at $p < .01$ level for Levene's test; Subscale scores range from 4 to 20, with higher scores indicating more adaptive mental health recovery; MHRM = Mental Health Recovery Measure Index Score, scale scores range from 30 to 150, with higher scores indicating more adaptive mental health recovery.

scores among the nominal demographic variables of sex and minority status. When researchers conducted independent sample t-tests to examine differences in MHRM subscale scores among the same nominal demographic variables, significant relationships emerged for the overcoming stuckness and basic functioning constructs.

Overcoming Stuckness

Males reported significantly higher levels of overcoming stuckness (M = 15.49, SD = 2.65), compared to females (M = 14.67 , SD = 3.65) (t = 1.25, $p < 0.01$). Exploratory analysis indicated that non-minorities (M = 15.43, SD = 2.93) and minorities (M = 14.38, SD = 3.67) (t = 1.58, $p < .10$) tended to have differing scores for the overcoming stuckness construct.

Basic Functioning

Males and females scores for basic function were significantly different (t = .65, $p < 0.01$). Male scores for basic functioning, on average, equaled 15.07 (SD = 2.31). Females, on average, had a basic functioning score of 14.65 (SD = 3.74).

Correlation Analyses

Correlation analyses were conducted to test the bivariate relationships between the full MHRM scale, subscales, and continuous demographic variables (age and length of participation). Researchers elected to use correlation analyses to examine how the demographic variables were related to individual subscales and how individual subscales were related to each other. Table 6 displays the inter-correlations among the full MHRM scale, subscales, and continuous demographic variables.

Continuous Demographic Variables (Age and Length of Participation)

According to results displayed in Table 6, age (M = 2.76, SD = .74) was positively correlated with length of participation (M = 3.42, SD = 1.06, $p < .05$). However, age and length of participation were not significantly correlated with any of the MHRM subscales or the MHRM full scale.

Individual subscale scores generally were highly positively correlated with each other. This finding suggests that the seven subscales which included overcoming stuckness, self-employment, basic functioning, overall well-being, new potentials, advocacy/enrichment, and learning and self-redefinition were highly related. Since the subscale categories are conceptually derived, an open factor analysis of the study sample was conducted and found that unique factor structures for seven subscales did not emerge. This open factor analysis confirmed results from previous studies.

The other two subscales, religious/spiritual healing and religious/spiritual support, were both positively correlated with each of the subscales. This finding suggests that religious/spiritual healing and religious/spiritual support were significantly related with other elements of mental health recovery.

Table 6. Intercorrelations among Age, Length of Participation and MHRM Subscales ($n = 99$)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Length of Participation	--										
2. Age	.24*	--									
3. Overcoming Stuckness	.09	-.09	--								
4. Self-Empowerment	.18	-.04	.66**	--							
5. Basic Functioning	.16	-.02	.57**	.63**	--						
6. Overall Well-Being	.19	.06	.59**	.75**	.64**	--					
7. New Potentials	.16	>.01	.56**	.71**	.70**	.85**	--				
8. Advocacy/Enrichment	.10	-.12	.55**	.68**	.67**	.77**	.76**	--			
9. Learning and Self-Redefinition	.09	-.06	.54**	.70**	.64**	.74**	.70**	.76**	--		
10. Religious/Spiritual Healing	.07	.12	.45**	.46**	.35**	.44**	.46**	.44**	.35**	--	
11. Religious/Spiritual support	.020	-.02	.37**	.28**	.23*	.26*	.27**	.29**	.26*	.68**	--

Notes: * indicates significant Pearson Correlation at *p* > .05; **indicates significant Pearson Correlation at the *p* > .01; Length of Participation is measured in years, Age is measured in years, Items 3 to 9 are conceptually derived subscales of the larger MHRM, each subscale is comprised of four items, and the subscale ranges from 4 to 20, lower scores indicating less adaptive responses, and higher scores indicating more adaptive responses. Items 10 and 11 are single item MHRM measures ranging from 1 = strongly disagree to 5 = strongly agree.

MULTIVARIATE ANALYSIS

To determine if identified FACIT core ingredients implemented at GHH correlated with key dimensions of members' mental health recoveries, researchers used linear regression analyses. For each regression model, demographic characteristics (age, length of participation, ethnicity, and sex) were specified as the predictors of individual MHRM subscale constructs. The analyses revealed that none of demographic variables predicted MHMR subscale scores. This finding was not entirely unexpected since the bivariate results suggested very few mean differences among various demographic sub-groups for both the full MHRM scale and the subscales.

Aim 2B: Determine if GHH Members are able to relate FACIT "core ingredients" to their individual, subjective mental health recovery experiences.

Researchers used qualitative data collection and analysis to address Aim 2B. Identifying causal attributions for mental illness/recovery may offer insights on how subjectivity and context influence individualized adaptations to mental illness (Cameron, 1996). According to Grouleau et al. (2010, p. 854), "explanatory models are not always idiosyncratic but often refer to local popular theories of health that can influence the adoption of health behaviors and may reflect the underpinnings of the sociocultural context of the narrator. . ." Individuals' personally held explanatory/casual models of mental health/illness have been thought to affect and have been linked with the following:

- Individual coping responses (Chesla, 1989)
- Treatment preferences (Saravanan, Jacob, Johnson, et al., 2007)
- Compliance (Foulks, Persons, & Merkel, 1986)
- Therapeutic relationship (McCabe & Priebe, 2004)
- Treatment satisfaction (Callan & Littlewood, 1998)

To explore how core ingredients of COSPs may impact GHH members' personal experiences and understandings of mental health recovery, the research used an adapted version of the McGill Illness Narrative Interview (MINI). The MINI is a qualitative semi-structured, interview protocol that was designed to elicit responses from interviewees about their experiences with illness (Grouleau, Young, & Kirmayer 2006, p. 671). The MINI is organized into three main areas with supplementary sections. These sections include:

- A chain of events concerning an individual's symptoms and illness
- Relevant and significant proto-types related to the interviewee's (or family/friend's) previous experiences
- Casual models about such factors as expectations, treatment experiences, and recovery outcomes
- Supplementary questions which focus on self-help, pathways to care, treatment experience, adherence to the treatment regimen, and the effects of the illness on an individual's

self-identity, self-perception, and personal relationships. (Grouleau, Young, & Kirmayer, 2006, p. 671).

In order to address the research question of GHH members being able to relate FACIT "core ingredients" to their individual, subjective mental health recovery experiences, researchers identified MINI questions pertaining to FACIT "core ingredients". MINI sections adapted for the interviews and corresponding questions are listed in Table 7.

To collect the qualitative data, researchers used a purposive sampling strategy. GHH members were recruited at house meetings, at information meetings, and by posted flyers in the GHH lobby and dining area. In order to be included in the sample, the individual had to be a GHH member and self-identified as an individual living with serious mental illness. Individuals that were actively suicidal/homicidal were excluded. The University of Toledo Institutional Review Board approved all protocols (recruitment, consent, interviewing, etc). The sample was comprised of 24 GHH adult members. Age range of the participants was 20-72 years old, with an average age of 44 (Median = 40). Sixteen of the participants were female and seven male. Participants self-identified their race with 10 indicating that they were "African-American" or "Black" and 14 stating that they were "Caucasian" or "White".

Interview Process and Coding

A University of Toledo graduate assistant conducted all interviews in a private room at GHH. Actual duration of interviews ranged from one hour to 2.75 hours. The interviewer audio-recorded the interviews.

Table 7. McGill Illness Narrative Interview (MINI) Sections Adapted for Interviews

MINI Section Include	Question Numbers
Initial Illness Narrative (Chain of Events)	1-6
Prototypes	7-14
Casual Models	15-29
Service Use and Response	30-38
Impact on Life and Self	39-46
Sample	*n = 24*

All audio-recorded transcripts were professionally transcribed. The graduate assistant reviewed the transcripts for accuracy and then uploaded them into ATLAS.TI for analysis. The principal investigator used a combination of deductive and inductive processes to identify patterns across interview narratives. Deductive codes were derived from the MINI and from the GHH PET FACIT fidelity assessment, and these deductive codes generated inductive codes via the constant comparative method. (Glaser, 1965).

SUMMARY OF QUALITATIVE ANALYSIS: CAUSAL MODELS AND PEER SUPPORT

Based on coding, major themes included self-identified diagnoses, "developmental disruptions" causal model, biological causal model themes, and positive self-concept themes. Qualitative results about the emerging themes from the deductive and inductive coding process are summarized in the following sub-sections.

Self-Identified Diagnoses

According to interview responses, participants were strongly aware of the biomedical model of mental illness. They were able to identify their specific DSM diagnoses, symptoms, and medicines. Self-identified diagnoses included schizophrenia (eight participants), depression (seven participants), anxiety (four participants), bipolar or manic depressive (four participants), PTSD (three participants), autism or autistic (two participants), OCD (one participant), and personality disorder (one participant).

Developmental Disruptions Causal Model Themes

"Developmental Disruptions" emerged from interview coding as the primary cause of an individual's initial mental illness experiences. However, when asked directly what they felt caused their initial mental illness experience, 21 or 88% of the respondents mentioned "Developmental Disruptions" as explicit causal attributions. "Developmental Disruptions" are stressors in childhood, adolescence, and/or early adulthood. Other primary causes included spiritual punishment and the weather. Identified

Table 8. Developmental Disruptions Causal Model Themes and Sub-Themes

Theme	Sub-theme	Number of Participants	Example Quotation
Parental support disruption			
	Death of parent during childhood/adolescence	3	". . .[M]y dad died when I was five, and my life was very hard because of that. I didn't have him to guide me, so my mother was trying to be you know two parents for me, and you know it was really bad not having a father. . . [I]t messed me up"
	Parent illness	2	". . .[M]y mom was getting ill and we thought maybe that had something to do with it. I think that started it [the person's mental illness experience]. . . [S]he couldn't do much, had the worst case of MS they'd ever seen. . ."
	Parent addiction	2	"It [the cause of the person's mental initial illness experience] was mainly my mom. . . [S]he couldn't do much for me, for any of us. . . [I]t was her alcoholism. . ."
	Parent grief/sibling abducted	2	". . .[M]y sister being abducted, that's when it started; my parents just couldn't get past it, finding her became their world and I was just sort of lost in there. . ."
	Parent conflict	1	". . . They had a divorce when I was 10 due to bankruptcy and embezzlement on my mother's part. That's when my mind became confused. . . The fights they had verbally I heard, you know. Basically I heard all their fights. I didn't see them. But that's what they were all about.
Parental maltreatment			
	Emotional abuse	2	"You know how you take a test and you didn't get the grade you wanted and you say 'Oh boy, I didn't do this good' and so you get home and your parents are screaming at you because you didn't make the grade, always calling you stupid and a failure. . .yeah, that's why. . ."
	Physical and sexual trauma	3	". . .[I]t was all the abuse from my father I went through, rapes, and beatings, it was quite morbid, I think that's what did it. . ."
Early physical health issues			
	Cancer	1	"Well when I had that surgery when I was little on lung cancer, they said I had lung cancer and I had to have part of my lung removed, the lower part. It was so hard . . .it was due to lung cancer, it was due to that."
	Whopping cough	1	"Well when I was 7 years old I had the whopping cough and my ears were crossed and both ear drums were scratched and they think at that time some brain damage was also done from the whopping that caused my issues to start up."
	Acute injury and amputation	1	I knew it hurt and I was bleeding and all I could think I had to get home. . . I got home and I told my mother what happened and I was like bleeding to death. I didn't know that I actually had lost that much blood, and she called my aunt, cause she didn't know what else to do, and I think my aunt shoved me in the back of her car and took me to the hospital. . .I wasn't right in my head after that."
Early adulthood role transition stress			
	Newly married	2	"being married the first time so young, with having people on my case bothering me or telling me that I wasn't that good of a husband. . .I tried hard. . .I just got achy from it . . ."
	New parent	2	". . .[A]ll of a sudden I became a parent of four small children. They were all in school, but I mean the youngest one was like in the first grade I think. He had just finished kindergarten, so that was the youngest one, so and the two older ones were like in Fifth grade. So I mean it was like everything sort of went haywire. So yeah, that why it happened. . ."
	Widowed young	1	"it was caused by, well, it was because he died in Vietnam. . . [I]t wasn't supposed to happen that way, I was widowed so young, what I supposed to do with all that. . ."

"Developmental Disruptions" and statement examples are displayed in Table 8.

Biological Causal Model Themes

Seven participants, all of whom also mentioned a primary developmental cause of their initial experience, offered a biological causal model as a secondary cause. None voiced any tensions in holding two seemingly different beliefs of causality. Themes pertaining to the biological causal model and examples of quotes are displayed in Table 8-A.

Positive Self-Concept Themes

When asked how their self-concept had been affected by living with a mental illness, 18 or 75% of the participants reported positive changes. Examples concerning positive changes included: being "stronger", "[seeing] myself more positively", "[getting] empathy for others", being a "more positive person", and having "strengthened my character".

There was a temporal component to these positive self-concept perceptions. In other words, the positive view of "self" appeared to be linked temporally to GHH participation and endorsement of mental health recovery concepts. Within individual narratives, participants described a time period in which they felt "broken", "damaged", "less than", and so forth. The interviewees then referenced their current positive view of self to their participation in GHH activities. The narratives were completely retrospective, revealing the fact that the individual understood how GHH participation related to the reported positive change in self-concept, specifically being involved in groups. Participants similarly reported a high

level of awareness of public stigma toward individuals with mental illness but did not currently mention such negative views toward themselves or their peers.

DISCUSSION & FUTURE DIRECTIONS

In considering participants' individual demographic characteristics, scores for overcoming stuckness were significantly higher for males than females and marginally higher for non-minorities than minorities. Basic functioning score were also significantly higher for males than females. Data findings from the qualitative interviews and the GHH FACIT assessment did not further illuminate these findings. We speculate that such findings may be related to larger societal influences and institutionalized oppressions within which GHH operates. GHH members who were female and/or a member of a minority group had different experiences of power and privilege from those in dominant gender and non-minority groups

However, given the consistency of our findings with the differential experiences of peer support across

gender and racial sub-groups reported within the COSP literature (Hardiman & Segal, 2003; Hall & Nelson, 1996), we recommend that additional research efforts focus on the recovery experiences of women and minorities who access COSPs. As previous research studies show, African American COSP members were found to be 80% less likely to have COSP peers in their social networks and were also more likely to seek concrete rather than emotional support (Hardiman & Segal, 2003). Hall and Nelson (1996) reported that higher numbers of female COSP members in an individual's social network were associated with more social support. However, female COSP members had both higher numbers of females in their networks and more negative interactions within these networks.

In respect to age, a trend was detected within this sample. As age increases, the length of participation at GHH also increases. GHH members in this sample, overall, reported high levels of recovery. Based on this study's multivariate analysis, demographic characteristics did not predict mental health recovery. For GHH, the high levels of recovery indicated that the sample was consistent with the qualitative findings regarding recovery experiences and the high level (above the national benchmark COSP average)

Table 8-A. Biological Causal Model Themes		
Themes	Number of Participants	Quote Example
Inherent chemical imbalance	5	*"I had a chemical imbalance sickness in my brain, was born with it. My brain doesn't operate like other people's. . ."*
Chemical balance cause by substance use/abuse	2	*"I was using all those drugs back then. . . [T]hat's what made me start hearing the voices, screwed up the chemicals in my brain. . .And those voices, they just stayed after that."*

of mental health recovery beliefs and values from the GHH PET FACIT assessment. Most notable, the learning and self-redefinition subscale was the highest MHRM subscale score for the sample. This theme was also featured prominently in the qualitative data findings as evident by the number of individuals indicating a positive change in self-concept and was identified as a strength in the GHH FACIT assessment. Such conceptual triangulation across the MHRM analysis, the GHH PET FACIT assessment and the qualitative interviews strongly underscore the recovery value of learning and self-redefinition for the GHH members participating in this study. While members endorsed high levels of self-empowerment in the GHH PET process, the qualitative interviews, and the MHRM self-empowerment subscale, group/collective respondents assigned the lowest scores to the MHRM self-empowerment sub-scale. The GHH PET FACIT assessment also identified self-empowerment as an area of growth.

The "Developmental Disruptions" explanatory model of mental illness raises questions of how to situate recovery within the GHH COSP community . However, there is perhaps a subtext occurring in terms of how one recovers and transcends disruptions. Individuals reported that were not only surviving mental illness, but also were recovering and thriving. The disruptions were externally located, and recovery was described as a highly internal process of unlearning negative feedback and learning new mental health recovery strategies of seeing and understanding one's self.

Qualitative interview participants indicated that formal and informal peer support as most helpful in their recovery journey. Examples of formal peer support include Wellness Management and Recovery (WMR), Wellness Recovery Action Plan (WRAP), and other group education processes. Informal peer support included talking with others and giving and receiving impromptu support. As reported in the GHH PET FACIT assessment, GHH rankings for education groups and presence of a mental health recovery belief system were well above national COSP average benchmarks. Qualitative interviewees subjectively identified these two core ingredients as key to reducing self-stigma. We speculate that participation in COSPs with high amounts of these particular FACIT ingredients may help to reduce and/or protect individuals against self-stigma. The reduction of stigma through participation in COSP programs is an important direction for future research. Multi-site, longitudinal research would also help to clarify the role of COSPs in self-stigmatization.

In addition to the overt limitations of this study's data (cross-sectional retrospective), one limitation/concern was the respondents' ages. Most GHH members are middle-aged or older adults, and the GHH average age is consistent with national reports regarding COSP membership. The two youngest qualitative interviewees had "generational differences" in their narratives related to initial hospitalization. Most interviewees described their initial hospitalization as a trauma unto itself, being "locked up". The youngest interviewees talked about being denied access to inpatient care and having to lie about symptom severity in order to be admitted. If COSPs are to continue to offer relevant and meaningful peer support needs of this new generation of young adult consumers, their needs should be explored explicitly and incorporated into existing "core ingredients" of mental health recovery and COSPs.

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Appendix 1 . Fidelity Assessment Recommendations

	Dimension	Year 1 Score	National Benchmark Score	Recommendation
1.1.1	Board Participation	8.00	4.75	Members were not sure if it was appropriate for officers to be self-identified consumers.
1.1.2	Consumer Staff	5.00	4.88	A consumer group should interview employee applicants; final candidates should do an activity with consumers, followed by consumers conducting an interview.
1.1.4	Budget Control	2.00	3.78	The fiscal report should be simple and should include pie charts and other graphs with numbers. The report should be shared with members and distributed/shared on a quarterly basis with consumers. Consumer feedback should be solicited at the quarterly meeting.
2.1.4	Cost	4.00	4.56	GHH has lots of activities; many of which are free, with a few having minimal costs. According to PET, the GHH score is lower than the national benchmark due to the large menu of activities being offered by GHH. The fact that GHH has many services that are offered at no to little cost is an organizational strength. The score for this item would be higher if fewer services were offered at a higher cost. Raising the score for this item would not be beneficial to the organization or GHH membership.
2.1.5	Disability	3.00	2.94	Even though GHH is above the national benchmark on this item, PET recommends exploring ways to obtain an accessible van. The lack of GHH having a van prevents some members from participating in GHH during the winter months. PET recognizes that the purchase of a van is a considerable expense and realizes that the purchase may not be immediately feasible. However, the purchase is important to membership participation.
2.2.1	Lack of Coerciveness	3.00	3.59	While GHH scored below the national average on this item, PET believes that staff's active encouragement of membership participation is a GOOD element to help engage quiet and passive people in activities. GHH should probably not attempt to raise this score. PET emphasized that staff never forces members to participate; however, staff makes every effort to include and encourage member participation.
2.2.2	Program Rules	4.00	4.44	Staff and members need to be more discrete when infractions or issues occur. Gossip and rumors can be divisive and cause members to feel unwelcome after issues occur.
2.3.1	Physical Environment	3.00	3.00	PET suggests that GHH provide a designated resting space for members who are struggling with sedation and/or fatigue. Currently, members try to rest in the community room, and conflicts sometimes arise if an activity is underway in the community area while a person is trying to rest.

Continued on next page

Appendix 1 *continued.* Fidelity Assessment Recommendations

Dimension	Year 1 Score	National Benchmark Score	Recommendation
2.3.2 Social Environment	4.00	4.56	According to PET, the majority of staff are great and have no distinctive mannerisms or attitudes. However, a minority of staff have distinctive mannerisms or attitudes. PET indicated that this score potentially could be raised if consumers were involved in the hiring process.
2.3.3 Sense of Community	3.00	3.75	A reinstatement of the newsletter could help members know about upcoming events. Members should reduce gossip/rumors. Members should be made aware of the fact that staff can only socialize with members outside of the GHH environment on a limited basis due to liability.
3.3 Empowerment	4.00		The lower scores may be a result of some members being externally required to attend GHH since they live in group homes. As a consequence, these members may feel less empowered than those members who are not required to attend GHH.
3.5 Recovery	4.00	3.94	Recovery is rated above the national benchmark and is a big strength of the GHH organization.
3.6 Acceptance and Respect for Diversity	4.00	4.44	GHH could add touch tone dialing capability and more translations of materials. Overall, this score was very good.
3.7 Spiritual Growth	4.00	2.38	While the GHH score is higher than the national benchmark, members expressed an interest in adding spiritually specific groups that would be led by a spiritual leader, such as a pastor or reverend.
4. Peer Support	34.00	28.08	This score is above the national average and is considered to be a big strength of GHH.
5. Education	18.00	16.86	Education is above the national average and is considered to be a big strength of GHH in the areas of self-management classes and artistic programming, literacy classes, and hygiene/self-care. However, more job readiness activities would be helpful.
6. Advocacy	10.00	10.53	Members need more education in this area, such as more information about Ohio Empowerment activities and the overall consumer movement. Members were unclear as to what advocacy activities are and how these activities fit within GHH's mission and programming.

Appendix 2 . Gathering Hope House – FACIT Scores - July 2010

1. STRUCTURE		Yr 1	Yr 2	Yr 3	Benchmark
1.1 Consumer Operated					
1.1.1	Board Participation	8			4.75
1.1.2	Consumer Staff	5			4.88
1.1.3	Hiring Decisions	1			3.94
1.1.4	Budget Control	2			3.78
1.1.5	Volunteer Opportunities	4			4.93
1.2 Participant Responsiveness					
1.2.1	Planning Input	4			4.00
1.2.2	Satisfaction/Grievance Response	4			3.72
1.3 Linkage to Other Supports					
1.3.1	Linkage with Traditional Mental Health Services	5			3.50
1.3.2	Linkage to Other COSPs	3			2.69
1.3.3	Linkage with Other Service Agencies	3			2.91
	Total Structure Score	**34**	**0**	**0**	**36.19**

2. ENVIRONMENT		Yr 1	Yr 2	Yr 3	Benchmark
2.1 Accessibility					
2.1.1	Local Proximity	3			3.09
2.1.2	Access	5			4.13
2.1.3	Hours	4			3.38
2.1.4	Cost	4			4.56
2.1.5	Disability	3			2.94
2.2 Safety					
2.2.1	Lack of Cohesiveness	3			3.59
2.2.2	Program Rules	4			4.44
2.3 Informal Setting					
2.3.1	Physical Environment	3			3.00
2.3.2	Social Environment	4			4.56
2.3.3	Sense of Community	3			3.69
2.3.4	Flexibility	3			3.75
	Total Environment Score	**39**	**0**	**0**	**41.13**

3. BELIEF SYSTEMS		Yr 1	Yr 2	Yr 3	Benchmark
3.1 Peer Principle		4			4.78
3.2 Helper's Principle		4			4.59
3.3 Empowerment					
3.3.1	Personal Empowerment	4			4.78
3.3.2	Personal Accountability	4			4.59
3.3.3	Group Empowerment	4			3.59

Appendix 2 *continued*. Gathering Hope House – FACIT Scores - July 2010

3. BELIEF SYSTEMS *(continued)*	Yr 1	Yr 2	Yr 3	Benchmark
3.4 Choice	4			3.38
3.5 Recovery	4			3.94
3.6 Acceptance and Respect for Diversity	4			4.44
3.7 Spiritual Growth	4			2.38
Total Belief Systems Score	36	0	0	34.38

4. PEER SUPPORT	Yr 1	Yr 2	Yr 3	Benchmark
4.1 Peer Support				
4.1.1 Formal Peer Support	5			3.84
4.1.2 Informal Peer Support	4			4.00
4.2 Telling Our Stories	4			4.13
4.2.1 Artistic Expression	5			3.44
4.3 Consciousness Raising	4			3.38
4.4 Crisis Prevention				
4.4.1 Formal Crisis Prevention	4			2.68
4.4.2 Informal Crisis Prevention	4			3.15
4.5 Peer Monitoring and Teaching	4			3.46
Total Peer Support Score	34	0	0	28.08

5. EDUCATION	Yr 1	Yr 2	Yr 3	Benchmark
5.1 Self-/Problem Solving Strategies				
5.1.1 Formally Structured Problem-Solving Activities	4			3.14
5.1.2 Receiving Informal Problem-Solving Support	4			4.31
5.1.3 Providing Informal Problem-Solving Support	4			3.63
5.2 Education/Skills Training and Practice				
5.2.1 Formal Skills Practice	3			3.06
5.2.2 Job Readiness Activities	3			2.72
Total Education Score	18	0	0	16.86

6. ADVOCACY	Yr 1	Yr 2	Yr 3	Benchmark
6.1 Self-Advocacy				
6.1.1 Formal Peer Support	4			3.34
6.2 Peer Advocacy	3			4.03
6.2.1 Outreach Participants	3			3.16
Total Advocacy Score	10	0	0	10.53

SUMMARY OF SCORES	2010	Yr 2	Yr 3	National Benchmark
Structure	34	0	0	36.19
Environment	39	0	0	41.13
Belief Systems	36	0	0	34.38
Peer Support	34	0	0	28.08
Education	18	0	0	16.86
Advocacy	10	0	0	10.53

EVALUATION OF PEER SUPPORT AND TRADITIONAL MENTAL HEALTH SERVICES

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STATEMENT OF PROBLEM

Ohio has been providing consumer-operated services (COS) to support mental health since the late 1970s (Tanenbaum, 2011a). During the past three decades, the number of COS organizations has increased to approximately 60. COS organizations provide peer advocacy (Chamberlain, Rogers, & Ellison, 1996; Trainor, Shepherd, Boydell, Leff, & Crawford, 1997), outreach (A. Lieberman, Gowdy, & Knutson, 1991), case management (Nikkel, Smith, & Edwards, 1992), and related services. Such consumer-operated agencies function as an open door to traditional mental health services. They require few pre-requisites for service and usually charge no fees for their services. Each COS has a different focus, but they complement each other by having the same basic goal: teaching people how to find and use community resources (Campbell, 2005).

COS organizations vary widely in size, capacity and scope of services offered. Traditionally, they aim to assist the client in their recovery journey, fostering self-empowerment, dignity, hope, self-worth, and self-determination. Consumers learn from the successful experiences of one another in dealing with mental illness. Just as importantly, they also gain skills by advocating for themselves in a spirit of hope with a focus on wellness.

Increased reliance on COSs in Ohio has generated a need for increased funding to support their further expansion. With increased funding also comes the need for greater accountability. This current project examines the services provided and their associated costs for consumers receiving COS and traditional mental health services (TMHS).

BACKGROUND

Self-help, peer services, and support have a long history in the mental health field (Campbell, 2011; Corrigan, Mueser, Bond, Drake, & Solomon, 2008; Solomon, 2004; Van Tosh, Ralph, & Campbell, 2000). Federal reports have identified peer services as key elements in our nation's mental health system (New Freedom Commission on Mental Health, 2003).

Among the variants of consumer self-help services are peer support groups (also called mutual support groups) in which a group of consumers meet together for mutual support. A 2002 national survey estimated that there were 1,005,400 members attending 3,315 mental health mutual support groups and 3,019 self-help organizations run by and for mental health consumers and/or family members (Goldstrom et al., 2006). A recent review of 12 studies found "limited but promising" evidence that mutual support groups benefit people with severe mental illness, people with depression/anxiety, and people in bereavement (Pistrang, Barker, & Humphreys, 2008).

A second type of consumer self-help and supportive services involves the employment of consumers as service providers who work side-by-side with non-consumer practitioners, a role that has been called "consumer provider" (Mowbray, Moxley, Jasper, & Howell, 1997). The numerous studies evaluating the consumer provider role have generally suggested that they are as effective as practitioners but without an identified psychiatric disorder (Solomon, 2004).

A third type of consumer self-help includes a variety of COS organizations. These organizations are staffed entirely by consumers and provide an array of services. Some are primarily drop-in centers, while others offer various residential, vocational, and counseling services. COS organizations provide friendship, social and recreational activities, and practical assistance (Trainor, Shepherd, Boydell, Leff, & Crawford, 1997). Like mutual support groups, COS organizations also have been growing in number; Goldstrom and colleagues (2006) reported that 534,551 consumers receiving help from 1,133 COS organizations in 2002.

The Goldstrom et al. 2002 evaluation focuses on those COS organizations that are independent organizations with administrative and fiscal functions overseen by mental health consumers who access mental health services (Tanenbaum, 2011b; Wikuk, Vu, Brown, & Meissen, 2008). By design, COS organizations vary greatly in structural characteristics and focus, such as services offered, budget size, and types of consumers served (Hodges & Hardiman, 2006; Tanenbaum, 2011b). They differ from other mental health providers since consumers are involved in all levels of the COS organization operations, including oversight of administrative and fiscal functions (Hodges & Hardiman, 2006; Tanenbaum, 2011b). COS organizations can be differentiated from peer support organizations. The latter operate under the auspices of a mental health provider or other non-consumer entity, while COS organizations are entirely independent with a formal organizational structure (Hodges & Hardiman, 2006; Tanenbaum, 2011b). The current evaluation focuses on COS organizations.

In many cases historically, state mental health authorities have provided the funding for COS organizations. In the 1980s, Michigan was a pioneer in promoting consumer drop-in centers (Mowbray, Chamberlain, Jennings, & Reed, 1988; Mowbray & Tan, 1993). New Jersey has a network of over 30 COS organizations that offer drop-in centers and residential services (Swarbrick, 2007). Kansas is another state with a long tradition of consumer self-help (Brown, Shepherd, Wituk, & Meissen, 2007b).

Most of the research on COS organizations has consisted of rudimentary program evaluations. Evaluations have included descriptions of consumer background characteristics, types of services provided, and occasionally, consumer outcomes. An important but mostly unanswered question concerns the degree to which the population of people attending COS organizations overlap with the population of clients who receive services from traditional mental health centers. One hypothesis that has been advanced is that COS augment professional mental health treatment. A variant of this hypothesis is that consumers who receive help from the COS organizations might result in their using less mental health treatment. If this hypothesis were supported, it would suggest that COSs are cost saving mechanisms.

A major multi-site study funded by the Substance Abuse and Mental Health Services Administration (SAMHSA) described the types of services provided by COS programs, their costs, and evaluated program outcomes (Campbell et al., 2006). The study included eight sites: four drop-in centers, two mutual support programs, and two centers for education and advocacy training. These sites recruited 1,827 consumers who were receiving mental health services but had rarely attended a COS program. Study participants were randomly assigned to a COS program in addition to mental health treatment or asked not to attend the COS program. The follow-up period was one year. The main outcome finding was that consumers participating in a COS program perceived higher levels of personal empowerment than those in the control intervention although overall impact was "very modest" (Rogers et al., 2007). Participants who attended the COS programs more frequently reported greater increases in empowerment (Corrigan, 2006).

Costs of COS in the SAMHSA study were recently reported (Yates et al., 2011). The annual site budgets ranged from $235,000 to $1,400,000. The mean cost per visit ranged from $7 to $345, with a median cost across sites of $44 per visit. Drop-in centers were clearly the least costly. Percentage of costs attributable to donations also ranged widely, from 1% at one site to 64% at another, with the median percentage of 16% of donated services. Ignoring donated services, the estimated mean cost per consumer served per three-month period ranged from $104 to $2,286, with a median cost of $363. The main conclusions to be drawn from these analyses are that COS program services and costs were highly variable.

While the SAMHSA study is the largest study of COS to date, several other pertinent studies have been conducted over the years. Mowbray and her colleagues were among the first researchers to examine the impact of consumer-operated drop-in centers (Mowbray, Chamberlain, Jennings, & Reed, 1988; Mowbray, Robinson, & Holter, 2002; Mowbray & Tan, 1993). They found wide variation in the amount of services provided across centers. Structured interviews with 120 consumers attending six centers uniformly expressed satisfaction with

services. Issues mentioned by respondents included funding constraints, need to enhance accessibility, and lack of support from some community mental health agencies.

In an evaluation of 21 COS organizations in Kansas, Brown and colleagues (2007b) found that members benefited as a function of their rate of participation, consistent with the findings in the SAMHSA study and many other studies. Consumers in the Kansas study who attended a COS site frequently had the best outcomes. The authors also concluded that consumer COS organizations were cost-efficient, with an average cost of $12 per consumer per day (Brown et al., 2007a).

Evaluations of COS programs continue. New Jersey routinely evaluates its COS network through ongoing outcome data collection (Swarbrick, 2007). Attendance records, including basic demographic information on participants are routinely collected (Swarbrick, 2009). In addition to assessing recovery outcomes, the evaluation focus has been on residential services and employment. Like the SAMHSA project, the New Jersey network has found variation in services across sites, but also some commonalities (Swarbrick, 2009).

One question not answered by the evaluations described above is whether COS augment the effectiveness of mental health treatment. One small study conducted at a single COS program in New York did directly address the combined impact of mental health treatment and consumer self-help (Yanos, Primavera, & Knight, 2001). The authors recruited 60 mental health center clients, half of whom were also attending a COS program. Participants involved in COS had better social

functioning than those involved only in traditional mental health services.

Based on prior research, several questions were addressed in this exploratory study. A variety of variables generate the need to know better how consumer participation in COS programs impacts the costs for mental health services in comparison to consumers who use only traditional mental services (TMHS) or those who use a combination of both TMHS and COS.

Research Questions

1. **For people who utilize only COS, do they receive more COS services than the group who get both COS and TMHS?**

2. **For people who use TMHS-Only, do they use more TMHS than the group who receive both COS and TMHS services?**

3. **For people who utilize both COS and TMHS services, do they use less TMHS services than the TMHS-only group?**

4. **What are the cost comparisons for each group above?**

METHODS

Design

We examined a six-month period of service use in a sample of Ohio consumers. To increase generalizability, four COS organizations participated in the study. Two COS organizations were located in major urban cities; one in a suburban area, and the other in a rural area. We compared three subgroups defined by whether or not the consumers were members of the COS organizations and received TMHS. Specifically, the COS group included: 1) consumers who also received TMHS, 2) consumers who were TMHS clients but did not receive any TMHS during the follow-up period, and 3) COS consumers who were not matched to the TMHS data base. In each of the four local mental health board (Board) areas where the COS organizations were located, we obtained a sample of TMHS consumers who had not attended the COS organization. TMHS services were limited to those services that could be reimbursed potentially by Medicaid.

Procedures

The four COS organizations varied in the way in which consumer information service data was recorded, ranging from one site that recorded 15-minute intervals of service to another that simply had a sign-in sheet indicating days of attendance. In an attempt to standardize the data collection, the researchers held training sessions for key staff in the COS organizations prior to the start of data collection.

For each participating COS organization, researchers transmitted a roster of COS consumers who received

COS services during the study time frame. Each consumer record contained identifying information, such as name and Unique Client Identifier (UCI) used by ODMH to track consumer claims. Study participants were matched on UCI codes, or by consumer name when the UCI code was not recorded. ODMH added TMHS data for the follow-up period to the consumers with matching UCI code. The data were then de-identified and transmitted to the research team. No consumer background information (sex, age, race, diagnosis, etc.) was included in the data file. Further details of the procedures are found in the final report (Jenkins-Christie, Díaz, Gorman, & Bond, 2012).

Sampling

The sample consisted of 2,683 consumers distributed across the four Board areas in which the participating COS organizations were located. Of those included in the sample, 1,883 consumers were members of a participating COS organization, and 800 consumers only received TMHS. Each Board had 200 consumers who only received TMHS.

To preserve anonymity, the four COS centers are referred to as Centers A to D. The breakout of the number of participants using a COS by center is as follows: Center A--485 (25.8%), Center B--1,039 (55.2%), Center C--228 (12.1%), and Center D--131 (7.0%) consumers. The overall COS sample consisted of three subgroups: 664 (35.3%) who also received TMHS during the study period, 446 (23.7%) who had not received TMHS during the study period but had a UCI, and 773 (41.1%) who did not have a UCI. We labeled three subgroups as COS-TMHS, COS-Only, and Unmatched COS.

Data Analysis

SPSS Version 19 was used to analyze the data. Univariate parametric tests (i.e., t tests and analysis of variance) were conducted to examine differences between groups on service and cost data. All analyses used two-tailed tests of significance, with alpha set at .05.

Rate of COS Contact

As shown in Table 1, consumers averaged 15.5 COS contact during the follow-up period, with Center D consumers averaging over twice as many contacts as consumers attending the other three centers. In Table 1 we also report the mean rate of service use within the three COS subgroups cross-tabulated with COS program. Using two-way analysis of variance, we found significant effects for COS center, COS subgroup; and an interaction effect. Specifically, we found a significantly lower rate of consumer contact for the Unmatched COS subgroup compared to the other two groups. The COS+TMHS Group averaged significantly more contacts than the Unmatched COS subgroup ($t = 7.75$, $p < .001$). Although the mean COS contact rate was similar overall for the COS+TMHS (mean = 20.6) and COS-Only subgroups (mean = 17.1), this difference also reached significance ($t = 1.97$, $p < .05$).

Table 1. Total COS Contacts by COS Subgroups

| COS Center | COS Subgroups | | | | | | | | | Total of All COS Services | | |
| | COS-TMHS | | | COS-Only | | | Unmatched COS | | | | | |
	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n
Center A	19.54	28.74	174	14.93	23.30	56	13.56	21.54	255	15.86	24.66	485
Center B	19.66	31.17	324	18.60	30.66	305	4.74	12.32	410	13.46	26.22	1,039
Center C	19.95	24.04	108	8.30	12.09	69	3.47	4.67	51	12.74	19.26	228
Center D	29.88	29.23	58	33.50	29.69	16	41.35	37.83	57	35.31	33.50	131
Total	20.57	29.39	664	17.08	28.02	446	10.26	20.80	773	15.51	26.24	1,883
F-values:	Program 22.08, $p < .001$; COS Subgroup 6.86, $p < .001$; Interaction 7.46, $p = .001$											

Table 2. Total COS Service Costs by COS Subgroups

COS Center	COS Subgroups											
	COS-TMHS			COS-Only			Unmatched COS			Total of All COS Consumers		
	Mean	SD	n	Mean	SD	n	Mean	SD	n	Mean	SD	n
Center A	$750	$1,103	174	$573	$895	56	$521	$827	255	$609	$947	485
Center B	$1,018	$1,605	324	$988	$1,611	305	$245	$663	410	$704	$1,368	1,039
Center C	$3,191	$5,423	108	$1,028	$1,829	69	$916	$1,742	51	$2,027	$4,094	228
Center D	$243	$238	58	$273	$242	16	$337	$308	57	$287	$273	131
Total	$1,234	$2,668	664	$917	$1,555	446	$387	$835	773	$811	$1,872	1,883

F-values: Program 22.74, $p < .001$; COS Subgroup 22.04, $p < .001$; Interaction 12.89, $p < .001$

Table 3. Comparisons of Total TMHS Costs by Local Mental Health Board (Board)

Board	COS+TMHS			TMHS-Only			Total in Board Area		
	Mean	SD	n	Mean	SD	n	Mean	SD	n
Board A	$2,160	$2,230	174	$1,200	$1,994	200	$1,647	$2,158	374
Board B	$2,509	$2,470	324	$1,244	$1,819	200	$2,026	$2,325	524
Board C	$1,661	$2,009	108	$899	$1,570	200	$1,166	$1,771	308
Board D	$1,757	$1,381	58	$748	$1,402	200	$975	$1,457	258
Total	$2,214	$2,280	664	$1,023	$1,721	800	$1,563	$2,079	1,464

F-values: Board Area 7.71, $p < .001$; COS vs TMHS 3.66, $p < .001$; Interaction 1.05, *ns*

Costs of Consumer-Operated Services

The mean cost of consumer-operated services varied significantly across COS programs. (See Table 2). Center C had significantly higher per-consumer costs during the study period than any of the other three centers (Tukey's post hoc test, p < .05). The mean per-consumer cost for Center C was $2,027, which was six times the mean cost in the Center D ($287), three times the mean cost in Center A ($609), and nearly three times the cost in Center B ($704). Conversely, the mean per-consumer costs for Center D also was significantly less than for Center B (Tukey's post hoc test, *p* < .05).

The mean costs for the three COS subgroups also varied significantly. The mean costs mirrored the mean rate of contact in the three subgroups. The mean costs for COS-TMHS group ($1,234) and for the COS-Only group ($917) were both significantly higher than the mean cost for the COS-Unmatched group ($387) (Tukey's post hoc test, *p* < .05).

Cost of Traditional Mental Health Services

As shown in Table 3, TMHS costs for the COS+TMHS group was more than twice the costs for the TMHS-Only group ($2,214 versus $1,023), a significant difference. The COS+TMHS group had significantly higher TMHS service costs than the TMHS-Only group for the following service categories that could be reimbursed by Medicaid: Community

Psychiatric Supportive Treatment (CPST)-Individual, CPST-Group, Crisis Intervention, and Pharmacological Management. Conversely, the TMHS-Only group had significantly higher TMHS service costs than the COS+TMHS group for the following service categories: Behavioral Health (BH), Individual Counseling, and Diagnostic Assessment by a Non-Physician. CPST-Individual accounted for the largest share of the costs for both groups: 54% for the COS+TMHS group and 32% for the TMHS-Only group. The second highest cost category for both groups was Pharmacological Management, accounting for 26% for the COS+TMHS group and 22% for the TMHS-Only group costs. The service with the third highest mean cost for both groups was BH Individual Counseling,

accounting for 5% for the COS+TMHS group and 20% for the TMHS-Only group. Together these three service categories accounted for 85% of the TMHS costs for the COS+TMHS group and 74% of the TMHS costs for the TMHS-Only group.

Regarding overall TMHS costs, the COS+TMHS group accumulated more TMHS costs than did the TMHS-Only group. The COS+TMHS group averaged twice the TMHS costs per consumer as did the TMHS-Only group overall, with a similar ratio in all four COS programs.

DISCUSSION

The goal of this evaluation was to document the service utilization and costs for consumers receiving COS in Ohio. To better understand these statistics, the evaluation design included a comparison group of consumers not enrolled in COS programs but receiving TMHS. To enhance the geographic generalizability of the findings, four COS organizations were selected in different parts of the state, with a comparison group chosen from the same geographic area. The investigators obtained a large sample with service data accumulated over a six-month period.

The main finding from this study was that consumers attending COS programs as well as receiving TMHS used both types of services more than consumers who received only one or the other type of service. Consequently, service use for the "dual users" – that is, consumers using both COS and TMHS – was higher than that for "single users" – that is, consumers using either COS only or TMHS only. With a few exceptions, the pattern of results was similar within each of the four Boards where the COS

organizations were located. The findings are inconsistent with the research question that receipt of COS decreases the use of TMHS.

One key perspective in interpreting the findings from this evaluation is to recognize that the total service costs were very modest compared to other models of community support. For example, the annual per-client cost for assertive community treatment exceeds $15,000 in 2011 dollars (Latimer, 2001). By contrast, in the current analysis, the mean annual per-consumer cost for all services for the group receiving both COS and TMHS is estimated to be $7,000.

Study Limitations

This evaluation had many limitations, precluding strong conclusions. It was severely limited by the lack of information about the study participants. No demographic background data, diagnostic information, clinical history, or other such data were available to help us understand the equivalence of the samples. The self-help literature and other sources suggests that people self-select into self-help groups (M. A. Lieberman & Borman, 1979; Luke, Roberts, & Rappaport, 1993). The same also holds for people receiving traditional mental health treatment. Thus, it is completely plausible that the four groups (COS-TMHS, TMHS-Only, COS-Only, and COS-Unmatched) were not equivalent with respect to diagnosis, level of disability, symptomatology and other factors.

A major gap in this report is a lack of information about the factors affecting into which group a consumer was classified. Regarding the COS-Only group, why did they not have TMHS contact? Three possible selection factors are: (1) Some may have no longer needed TMHS; (2) some may have

needed TMHS, but erroneously believed that they did not; (3) some may have concluded that TMHS services were not helpful for them. For the COS-Unmatched group, some may have been misclassified as not having a match. It is possible that they may not have had a severe mental illness and therefore did not qualify for TMHS. Some may not have been aware that they needed TMHS. Further information about the selection biases from the consumer perspective would help our understanding of the findings.

Information on sample recruitment including methods of selection and refusals is another key ingredient of a rigorous research study. The absence of such documentation is another limitation.

Retrospective data collection is a further limitation. When data are collected prospectively, issues regarding admission and dropout are more likely to be clarified. In addition, data quality for retrospectively collected data is generally poorer than for data collected prospectively. A further limitation in data collection procedures was that in some participating sites, cost data were imputed instead of a more precise method, such as estimations based on calculations from type and duration of service provision.

Another limitation was the absence of any consumer outcomes. Measuring outcome would have made it more feasible to examine cost-effectiveness. In particular, we are unable to examine the hypothesis that consumers who received more services achieved better outcomes, a finding reported in one previous COS study (Corrigan, 2006).

The variability among COS organizations is a further study limitation.

The preliminary analyses comparing the four COS organizations demonstrated wide variability in service use and costs, which is similar to findings from the SAMHSA COS study (Yates et al., 2011). The COS organizations participating in the study differed in their program philosophies, services provided, and record keeping. This variation is not surprising, given the volunteer and consumer-centered ethos of COS. This wide variation does, however, suggest caution in generalizing any findings.

CONCLUSIONS

This exploratory evaluation has raised a number of provocative questions regarding the role of COS The findings are very different from what had been hypothesized in the literature concerning COS organizations. Because of the many study limitations, we caution against over-interpreting the study findings. All of our conclusions are limited to descriptions of the current data set. We conclude:

1. Consumers who received services from both COS organizations and TMHS agencies had more contact with COS organizations than consumers participating in COS only.

2. Consumers varied widely in their use of peer support. We found no evidence that peer support reduced the overall use of TMHS, though it is possible that receiving peer support may have reduced certain types of mental health treatment.

3. COS costs and TMHS costs were greater for consumers receiving both types of services compared to those receiving only one.

4. The costs of COS were not offset by reduced TMHS costs.

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THE EFFECT OF CULTURALLY SENSITIVE PRACTICE ON TREATMENT OUTCOMES

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- *This study explores consumer perceptions of general practices deemed culturally sensitive.*

- *Treatment outcomes are measured as functioning, quality of life, and social connectedness.*

- *It is a modest contribution to the scant body of literature on the relationship between culturally sensitive mental health service delivery and treatment outcomes.*

- *In general, more work needs to be done on the psychometric properties of the MHSIP and YSS-F instruments before strong conclusions can be made about the relationship between measures of cultural sensitivity, treatment outcomes, functioning, and social connectedness.*

BACKGROUND

In the mid-1990s, the Substance Abuse and Mental Health Administration (SAMHSA) developed an adult consumer survey to measure perception of services and treatment outcomes (Smith & Ganju, 2008). That instrument, which was developed through the Mental Health Statistical Improvement Project, is often referred to as the MHSIP. The MHSI Project also worked with the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services to develop a similar instrument to collect data measuring caregivers' perceptions of services and treatment outcomes of children and adolescents (Oregon Department of Human Services., 2003). That instrument, known as the Youth Services Survey for Families (YSS-F), currently is administered (in tandem with the MHSIP) on a yearly basis in 55 states and territories. Both the MHSIP and YSS-F have been endorsed by the National Association of State Mental Health Program Directors and are used to measure several of the performance indicators in SAMHSA's National Outcome Measures system (SAMHSA, 2005).

PURPOSE OF STUDY

While the MHSIP and YSS-F are administered by states and territories primarily to assess consumer satisfaction and perception of treatment outcomes, the present study uses MHSIP and YSS-F measures of culturally sensitive service delivery to examine impact on perceived outcomes. For over a decade, the Ohio Department of Mental Health (ODMH) has promoted cultural competency as a way of overcoming disparities in service delivery. Cultural competence, which encompasses cultural sensitivity, implies the idea of a structural change that allows for greater awareness and sensitivity to cultural differences among people receiving mental health services. ODMH has defined cultural competence as *"a continuous learning process that builds knowledge, awareness, skills and capacity to identify, understand and respect the unique beliefs, values, customs, languages, abilities and traditions of all Ohioans in order to develop policies to promote effective programs and services."* The study's hypothesis is that consumers who perceive service delivery as culturally sensitive report better treatment outcomes than those who are less satisfied with their providers' cultural competence.

The cultural competence and mental health services policy agenda (CECP, 1994) has an implicit assumption that practitioner awareness and sensitivity will lead to better outcomes. The Agency for Healthcare Research and Quality (AHRQ) has pointed out that many interventions in the cultural competency arena have been implemented "despite the lack of rigorously conducted, definitive outcomes studies" that demonstrate "concrete linkages between an intervention and outcomes, especially cost-related benefits" (AHRQ, 2004). Studies (Brach & Fraser, 2000) concerned with the outcomes of

culturally competent practice have defined the dependent variable as elimination of disparities, or conversely, increased access to care. One notable study (Sue, Fujino, Hu, Takeuchi, & Zane, 1991) based on a large, diverse sample of public mental health consumers in Los Angeles County has looked at treatment outcomes and a specific practice identified as culturally competent, i.e., ethnoracial matching of the therapist and consumer. The Sue et al. (1991) study, which measured the dependent variables as treatment sessions, drop out and treatment outcomes, found that Asian Americans generally had better results when matched with an ethnoracially similar therapist. The present study, based on consumer perceptions of general practices deemed culturally sensitive and treatment outcomes measured as functioning, quality of life, and social connectedness, is a modest contribution to the scant body of literature on the relationship between culturally sensitive mental health service delivery and treatment outcomes.

METHODOLOGY

Stratified samples of 8,244 adult consumers and 8,200 child and adolescent consumers meeting state-defined criteria for Serious Mental Disturbance (SMD) and Severe Emotional Disturbance (SED) were randomly drawn from the SFY 2010 billing database (101,200 potential adult participants and 75,500 potential child caregiver participants). The samples initially were stratified geographically, with county of residence identified by one of five demographic classifications representative of the state. Sample proportions for the stratification were based on distributions in the billing database. Respective adult consumer/

child caregiver sample proportions were: Major Metropolitan (54%; 50%), Appalachian (12%; 14.3%), Suburban (14%; 14.3%), Small City (12%; 14.1%), and Rural (8%; 7.9%). Adult consumer and child caregiver samples next were stratified by racial groups and respective proportions were: Caucasian (71.8%; 63.9%), African-American (24%; 29.2%), Other (2.6%; 3.1%), and Unknown (1.7%; 3.9%). Other ethnoracial minorities included Asian, Native American, Pacific Islander and Native Hawaiian, and Native Alaskan, and Multi-Racial.

Sampled consumers were mailed pencil and paper surveys of the MHSIP or YSS-F. Respondents were given the option of returning completed surveys in business mail envelopes or by telephone over the state's toll-free consumer hotline. Items on the MHSIP and YSS-F use a Likert scale with the following values: Strongly Disagree = "1," Disagree = "2," Undecided = "3," Agree = "4," Strongly Agree = "5." The scores are added up and divided by the total number of questions in the subscale. According to SAMHSA's scoring algorithm, subscale scores that resulted in a mean (average) greater than 3.5 indicated an overall positive perception for the domain. To be considered a valid score, two-thirds of the items in a subscale needed for a respondent's score.

A single MHSIP survey question (#18) concerned with the cultural sensitivity of service staff was entered into three separate hierarchical regressions on MHSIP subscales for outcomes, functioning, and social connectedness. The YSS-F's cultural sensitivity subscale was entered into two separate hierarchical regressions on the YSS-F subscales for outcomes and social connectedness. Models using MHSIP and YSS-F responses controlled for geographic classification, race, gender, diagnosis, and age.

SAMPLE CHARACTERISTICS

Some 24.4% of the sample responded to the mail survey, resulting in 2,015 completed MHSIP forms. Thirteen percent (13%) of the MHSIP surveys were returned as undeliverable (*n* = 1071). Eighteen-point-four percent (18.4%) of the sample responded to the mail survey, resulting in 1,508 completed YSS-F forms. Eight-point-five (8.5 %) of the YSS-F surveys were returned as undeliverable (*n* = 695). Twenty-four-point-four percent (24.4%) of the MHSIP sample responded to the survey by mail or phone, resulting in 2,015 completed forms. Thirteen percent (13%) of the MHSIP surveys were returned as undeliverable (*n* = 1071). Eighteen-point-four percent (18.4%) of the YSS-F sample responded to the survey by mail or phone, resulting in 1,508 completed forms. Eight-point-five (8.5 %) of the YSS-F surveys were returned as undeliverable (*n* = 695).

Although the stratified sample was selected to ensure generalizability to all Ohio's mental health service recipients, survey respondents were not representative of the population in several areas. For both the MHSIP and YSS-F samples, Appalachian residents were over-represented among respondents (13.9% and 17.3%, respectively), and Suburban consumers were under-represented among respondents (8.4% and 15.6%, respectively). Among child caregiver respondents to the YSS-F surveys, Major Metropolitan consumers were under-represented (44.2%), and Suburban and Small City respondents were over-represented (15.6% and 14.9%, respectively). MHSIP response was more balanced geographically, with return rates from Major Metropolitan, Rural, and Small City counties (52.5%, 8.4% and

12.9%, respectively) representative of the adult consumer sample.

On responses to the MHSIP and YSS-F surveys, African-American consumers were under-represented (22.5%, 26.2%, respectively); Caucasian consumers were over-represented (74%, 47.4%, respectively) in both surveys. Other Minorities and Unknown ethnoracial identity response rates were representative of the service population on both surveys. Although more adult females (51%) than adult males (49%) received public mental health services in SFY 2010, female survey respondents (63.3%) were over-represented as survey participants. The average respondent's age was 45.5 years old, and the median age was 47.2 years old. The oldest respondent in the adult sample was 85.7 years old, and the youngest was 17. The respondents' age distributions were not representative of the adult sample. At the time of the adult survey, some 86% reported they were still currently receiving services; 10% were no longer receiving services, and 4% were unknown. After matching survey identifiers with service data in the Multi-Agency Community Services Information System (MACSIS), analysis showed the majority of the adult respondents (84.6%) had received services for more than one year, while 15.4% were new to services in the current year.

In caregiver responses to the YSS-F, the average age of the youth consumers was 11.3 years old and median 16.9. The oldest consumer represented by parent response was 16.9 years, and the youngest was 2.5 years old. Age distributions for the respondent sample were not representative of the service population. More child caregivers responded for male consumers (62.5%) than females (37.5%), and males were over-represented. A large majority—95% of the families surveyed—reported that the child receiving services

currently was living at home; only 3% were not living with a parent/guardian and 2% were unknown. Of the families surveyed, 21% percent reported the child was no longer receiving services, while 76% were still receiving services. Status of current service receipt was unknown for 3%. After matching survey identifiers with service data in MACSIS, analysis showed the majority of the youth sample (71.8%) received services for more than one year, while 28.2% received services only in the current year.

INSTRUMENTATION

Since its inception, the MHSIP has evolved into a 36 item instrument measuring seven domains: general satisfaction, access, quality and appropriateness, participation in treatment planning, perceived outcomes, functioning, and social connectedness. The MHSIP's cultural sensitivity question (#18) is a single item within a nine-item subscale measuring quality and appropriateness. To date, little work has been done on examining the psychometric properties of the MHSIP in its current form. One peer-reviewed study (Jerrell, 2006) examined a 21 item version of the MHSIP for reliability of the access, quality and appropriateness, and outcomes subscales. The Jerrell (2006) study used a six-item version of the quality and appropriateness subscale that did not include the cultural sensitivity question. The study also used a four-item version of the outcomes subscale. Cronbach's alpha reliability estimates for the four-item subscale was .79, with a moderate test-retest coefficient of .45. An MHSIP report (Lutterman, Phelan, & Berhane, 2008) published a Cronbach's alpha of .85 on a three-item and .89 on a four-item version of the social connectedness subscale.

Table 1 shows MHSIP domain questions used in the current study with number of valid responses, means, standard deviations, and Cronbach's alpha for the subscales.

The YSS-F currently is administered as a 26 item instrument measuring six domains: access, participation in treatment planning, cultural sensitivity, appropriateness, perceived outcomes, and social connectedness. As with the MHSIP, limited work has been done on examining the psychometric properties of the current YSS-F. An early reliability analysis (Brunk, 2003) of measures of access, participation, cultural sensitivity, appropriateness, and perceived outcomes resulted in a Cronbach's alpha of .91 on the four-item cultural sensitivity subscale and a Cronbach's alpha of .91 on a six-item version of the outcomes subscale. A Rasch analysis (Brunk & Ferriss, 2007) of the YSS-F 15-item perception of services scale (which combines measures of access, participation, appropriateness and cultural sensitivity) indicated that four-item cultural sensitivity subscale did not differentiate from the other 11 measures of service success. Lutterman et al's (2008) test of two social connectedness subscales on the YSS-F resulted in a Cronbach's alpha of .90 on a four-item and .91 on a three-item measure. In the current study, split-half testing of the four-item cultural sensitivity, seven-item outcomes, and four-item social connectedness subscales resulted in respective Cronbach's alpha of .90/.91, .87/.88, and .84/.80.

Table 2 shows YSS-F domain questions used in the current study with number of valid responses, means, standard deviations, and Cronbach's alpha for the subscales.

RESULTS

MHSIP: A significant model emerged when item 18 was hierarchically regressed on the outcome subscale. Total adjusted R^2 for the model was 17.7% ($F_{12,1,773}$ = 32.853; $p < .0001$). Table 3 shows the beta values, standard errors, R^2, and R^2 change for predictor variables entered into the regression. Referent variables are: Geographic Location-Major Metropolitan, Race--Caucasian, Gender--Male, Diagnosis--Psychotic Disorders. Another significant model emerged when item #18 was hierarchically regressed on the functioning subscale. Total adjusted R^2 for the model was 14.7% ($F_{12,1,814}$ = 27.026; $p < .0001$). Table 4 shows the beta values, standard errors, R^2, and R^2 change for predictor variables entered into the regression. A third significant model emerged when question #18 was hierarchically regressed on the social connectedness subscale. Total adjusted R^2 for the model was 11.4% ($F_{12,1,709}$ = 19.311; $p < .0001$). Table 5 shows the beta values, standard errors, R^2, and R^2 change for predictor variables entered into the regression.

In all three models, age and diagnostic group emerged as significant predictors, accounting for a respective 1.0% to 1.3% and 2.0% to 2.8% of the R^2 change at significance levels of $p < .01$ and $p < .001$.

YSS-F: A significant model emerged when scores on the cultural sensitivity subscale were hierarchically regressed on responses to the outcome subscale. Total adjusted R^2 for the model was 16.8% ($F_{13,1,480}$ = 24.031; $p < .0001$). Table 6 shows the beta values, standard errors, R^2, and R^2 change for predictor variables entered into the regression. Referent variables for Geographic Classification are Major Metropolitan, Race - Caucasian, Gender – Male, and Diagnosis - Psychotic Disorders.

Another second significant model emerged with the cultural sensitivity subscale was hierarchically regressed on the social connectedness subscale. Total adjusted R^2 for the model was 22.2% ($F_{13,1,475}$ = 33.397; $p < .0001$). Table 7 shows the beta values, standard errors, R^2, and R^2 change for predictor variables entered into the regression.

In both models, geographic classification and diagnostic group emerged as significant predictors, accounting for a respective .2% to .3% and .8% to 1.2% of the R^2 change at significance levels of $p < .05$ and $p < .001$.

LIMITATIONS

Sample response distributions do not support generalizations about racial groups, geographic regions, age or gender. The under-representation of African-American and over-representation of Caucasian consumers in both survey samples well may have affected the significance of race as a predictor variable. The surveys' over-representation of consumers from the state's Appalachian counties—a region with a distinct cultural identity—may have created a similar bias. With this caveat, it is interesting to note that in the models involving YSS-F subscale scores, a Rural or Suburban status (mostly Caucasian) among sample respondents significantly predicted a small negative relationship to treatment outcomes, despite the perception of culturally sensitive service provision. Because the majority race represented in the samples was highly correlated with regional distributions, Caucasians' positive perceptions of cultural sensitivity in Rural and Suburban settings may have been overly influential. As compared to Major Metropolitan and Small Cities, Ohio's Rural and Suburban geographic classifications are areas with low levels of ethnoracial diversity.

DISCUSSION

Results of the present study should be viewed as exploratory, and as such, provide a starting point for further use of the MHSIP and YSS-F to examine the relationships between racial identification, perceptions of cultural sensitivity, operational measures of cultural competence, and treatment outcomes. The MHSIP and YSS-F are post-hoc measures of service outcomes identified as quality of life, functioning, and social connectedness. The present study cannot provide insight into how services perceived as culturally sensitive lead to improved quality of life, functioning or social connectedness. When measured as improved engagement and retention, improved access to care has a theoretical association with treatment outcomes. Further study would model engagement and retention based on patterns of service use to examine associations between perceptions of cultural sensitivity and treatment outcomes.

In general, more work needs to be done on the psychometric properties of the MHSIP and YSS-F instruments before strong conclusions can be made about the relationship between measures of cultural sensitivity, treatment outcomes, functioning, and social connectedness. It is questionable how well a single item measure as general as MHSIP item 18 functions as an indicator of cultural sensitivity. Indeed, the lack of

psychometric information about how this item loads on the MHSIP's nine-item quality and appropriateness subscale or on the 20-item perception of services warrants further investigation. The same limitation applies to the YSS-F's four-item cultural sensitivity subscale. It is not clear to what extent this subscale measures perception of the provider cultural sensitivity versus overall satisfaction with services. Furthermore, the link between cultural sensitivity and evidence of cultural competence is not clear. For example, does respect for a consumer's religious or spiritual beliefs affect

Table 1. Study Domains and Questions from MHSIP Survey

Domain	Questions	N	$\bar{x}$	SD	α
Cultural Sensitivity	18. Staff were sensitive to my cultural/ethnic background.	1960	4	.926	-
Perception of Service Outcomes	21. I deal more effectively with daily problems. 22. I am better able to control my life. 23. I am better able to deal with crisis. 24. I am getting along better with my family. 25. I do better in school and/or work. 26. My housing situation has improved. 27. My symptoms are not bothering me as much.	1937	3.54	.913	.92
*Perception of Functioning**	28. My symptoms are not bothering me as much.† 29. I do things that are more meaningful to me. 30. I am better able to take care of my needs. 31. I am better able to handle things when they go wrong. 32. I am better able to do things that I want to do.	1990	3.50	.983	.93
Perception of Social Connectedness	33. I am happy with the friendships I have. 34. I have people with whom I can do enjoyable things. 35. I feel I belong in my community. 36. In a crisis, I would have the support I need from family or friends.	1861	3.65	.995	.87

† Question 28 used in both domains.
* Domain introduced on the May 2007 Adult and Older Adult Consumer Perception Surveys.

Table 2. Study Domains and Questions from YSS-F Survey

Domain	Questions	N	$\bar{x}$	SD	α
Cultural Sensitivity	12. Staff treated me with respect. 13. Staff respected my family's religions/spiritual beliefs. 14. Staff spoke with me in a way that I understood. 15. Staff were sensitive to my cultural/ethnic background.	1501	3.56	.951	.90
Perception of Service Outcomes	16. My child is better at handling daily life. 17. My child gets along better with family members. 18. My child gets along better with friends and other people. 19. My child is doing better in school and/or work. 20. My child is better able to cope when things go wrong. 21. I am satisfied with our family life right now. 22. My child is better able to do things he or she wants to do.	1499	3.87	.749	.87
Perception of Social Connectedness	23. I know people who will listen and understand me when I need to talk. 24. I have people that I am comfortable talking with about my child's problems. 25. In a crisis, I would have the support I need from family or friends. 26. I have people with whom I can do enjoyable things.	1492	4.11	.753	.80

Table 3. Adults: Cultural Sensitivity as a Predictor of Outcomes

Predictors	B	SE	R²	ΔR²
*Geographic Class**			0.0%	0.0%
Appalachian	0.03	0.06		
Rural	0.08	0.08		
Small City	- 0.01	0.06		
Suburban	0.02	0.07		
*Race**			0.3%	0.3%
African American	- 0.03	0.05		
Unknown/Other	0.14	0.11		
*Gender**	- 0.01	0.04	0.3%	0.1%
Age	0.01***	0.00	2.2%	1.8%
*Diagnosis**			5.0%	2.8%
Bipolar	- 0.21***	-0.10		
Depression	- 0.44***	0.05		
Other	- 0.27***	0.07		
Cultural Sensitivity	0.37***	0.02	18.3%	13.3%

*Referent Groups: Major Metropolitan, Male Caucasian, Psychotic Disorders

Table 4. Adults: Cultural Sensitivity as a Predictor of Functioning

Predictors	B	SE	R²	ΔR²
*Geographic Class**			0.0%	0.0%
Appalachian	0.00	0.07		
Rural	0.06	0.08		
Small City	- 0.03	0.07		
Suburban	- 0.02	0.07		
*Race**			0.5%	0.4%
African American	- 0.08	0.06		
Unknown/Other	0.13	0.12		
*Gender**	- 0.01	0.05	0.5%	0.1%
Age	0.01***	0.00	1.8%	1.3%
*Diagnosis**			4.6%	2.8%
Bipolar	- 0.19**	0.06		
Depression	- 0.45***	0.06		
Other	- 0.29***	0.08		
Cultural Sensitivity	0.35***	0.02	15.3%	10.7%

*Referent Groups: Major Metropolitan, Male Caucasian, Psychotic Disorders

Table 5. Adults: Cultural Sensitivity as a Predictor of Social Connectedness

Predictors	B	SE	R²	ΔR²
*Geographic Class**			0.0%	0.0%
Appalachian	0.00	0.07		
Rural	0.06	0.08		
Small City	- 0.03	0.07		
Suburban	- 0.02	0.07		
Race*			0.5%	0.4%
African American	- 0.08	0.06		
Unknown/Other	0.13	0.12		
*Gender**	- 0.01	0.05	0.5%	0.1%
Age	0.01***	0.00	1.8%	1.3%
*Diagnosis**			4.6%	2.8%
Bipolar	- 0.19**	0.06		
Depression	- 0.45***	0.06		
Other	- 0.29***	0.08		
Cultural Sensitivity	0.35***	0.02	15.3%	10.7%

*Referent Groups: Major Metropolitan, Male Caucasian, Psychotic Disorders

Table 6. Child and Adolescent Caregivers: Cultural Sensitivity as a Predictor of Functioning

Predictors	B	SE	R²	ΔR²
*Geographic Class**			0.3%	0.3%
Appalachian	- 0.03	0.07		
Rural	- 0.18*	0.09		
Small City	- 0.00	0.07		
Suburban	- 0.03	0.07		
*Race**			0.7%	0.4%
African American	- 0.10	0.06		
Unknown/Other	- 0.03	0.09		
*Gender**	0.07	0.05	0.9%	0.2%
Age	- 0.01*	0.01	1.2%	0.3%
*Diagnosis**			1.8%	0.6%
ADHD	0.08	0.06		
Disruptive Disorder	- 0.09	0.07		
Mood Disorder	- 0.02	1.08		
Other	0.08	0.08		
Cultural Sensitivity	0.57***	0.03	17.6%	15.7%

*Referent Groups: Major Metropolitan, Male Caucasian, Psychotic Disorders

perception differently when the provider is affiliated with the same religion and/or the clinician professes the same spiritual tradition? Further investigation into how culturally competent practices are linked to perceptions of cultural sensitivity will use versions of the MHSIP and YSS-F augmented with additional measures.

Table 7. Child and Adolescent Caregivers: Cultural Sensitivity as a Predictor of Social Connectedness

Predictors	B	SE	R^2	ΔR^2
*Geographic Class**			0.2%	0.2%
Appalachian	- 0.05	0.05		
Rural	0.05	0.07		
Small City	0.03	0.06		
Suburban	- 0.11*	0.06		
*Race**			0.5%	0.3%
African American	- 0.05	0.05		
Unknown/Other	- 0.03	0.08		
*Gender**	- 0.03	0.04	0.5%	0.0%
Age	- 0.01*	0.01	0.8%	0.3%
*Diagnosis**			1.0%	0.1%
ADHD	0.02	0.05		
Disruptive Disorder	0.04	0.06		
Mood Disorder	0.01	0.06		
Other	0.01	0.06		
Cultural Sensitivity	0.56***	0.03	22.9%	21.9%

*Referent Groups: Major Metropolitan, Male Caucasian, Psychotic Disorders

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Reservations	1-800-233-1234
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◊ **Friday, June 15, 2012** (Continental Breakfast & Lunch provided)
Registration starts at 9:00. Program starts at 10:00 a.m. and ends at 5:00 p.m.
Advanced Violence Risk Assessment from a Forensic Psychiatry Perspective
Phillip J. Resnick, MD (10:00 am-1:00 pm)
Advanced Violence Risk Assessment from a Forensic Psychology Perspective
Randy K. Otto, Ph.D., ABPP (2:00 pm-5:00 pm)

◊ **Saturday, June 16, 2012** (Continental Breakfast Lunch provided)
Ethics in Forensic Psychological Practice -Randy K. Otto, Ph.D., ABPP (8:45 am -12:00 pm)

◊ CEUs for Psychologists, Social Workers, Counselors, and Nurses; CMEs for Physicians; and CLEs for Attorneys have been applied for but not yet approved.

Think Learn & Live: Wellness, Resiliency & Recovery--NAMI National Convention

June 27-30, 2012
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Location:	Seattle Sheraton Hotel , Seattle, WA
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◊ The NAMI 2012 convention theme, *Think, Learn and Live: Wellness, Resiliency and Recovery,* highlights a focus on developing effective programs and resources to increase resiliency and advance recovery. Early registration rates deadline is May 31, 2012. NAMI is accredited to offer continuing education credit to registered nurses, social workers and licensed counselors. CEU application fee, $15.

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9:00 a.m. to Noon or 1:00 p.m. to 4:00 p.m.	1:00 p.m. to 4:00 p.m.	1:00 p.m. to 4:00 p.m.
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Multiethnic Advocates for Cultural Competence | 1335 Dublin Road, Suite 105C | Columbus, OH 43215 | 614-221-7841 phone |614-487-9320 fax

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Reservations	https://resweb.passkey.com/Resweb.do?mode=welcome_ei_new&eventID=8157756
Registration & Info:	https://www.cvent.com/events/the-2012-kansas-conference-on-poverty/registration-e49ce5a2cdaf4e60a289334adfa1f205.aspx2012

◊ The Kansas Conference on Poverty professes to explore the impact of economic insecurity on public policy as well as personal lives. Presenters come from around the country. Cost for 3-day training -- $160.

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Location:	Gaylord Palms Resort & Convention Center, Kissimmee, FL
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◊ Biennial Training Institutes are organized in partnership with the Child, Adolescent and Family Branch of the federal Center for Mental Health Services, Substance Abuse and Mental Health Services Administration and The Annie E. Casey Foundation. The Institutes are designed for a variety of individuals including state, tribal, territorial, and local administrators, planners, providers, clinicians, care managers, families, youth, advocates, managed care organizations, educators, evaluators, technical assistance providers, and others concerned with improving services for children, youth, and families.

◊ The system of care (SOC) approach has been at the forefront of providing effective strategies and solutions to improve services and outcomes. SOC emphasizes home and community-based care, comprehensive and individualized services and supports, family-driven and youth-guided care, cultural and linguistic competence, services provided within the least restrictive environment, and coordination across child-serving systems.

◊ Five intensive Pre-Institutes Training Programs are offered on Tuesday, 7/24 and Wednesday, 7/25 from 8:30 AM to 5:30 PM. An additional fee covers materials, breakfast and refreshments, one luncheon, and one dinner reception. CEU credits offered. The pre-institute programs are: • *Standing Up! for Cultural and Linguistic Competence: Organizational and System Change in Challenging Environments* • *Leadership and Change Management to Promote Systems Change Strategic Financing for Children's Behavioral Health Services and SOC: Health Reform and Other Financing Opportunities* • *Effective Residential Service Interventions in SOC* • *Collaboration Lab: Engaging in Challenging Conversations.*

◊ Training Institutes Poster Session Friday, July 27 from 3:30 PM to 5:30 PM. <u>As of 4/20/12, TI still accepting Poster Presentations</u>

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◊ A training partnership between the Ohio Departments of Developmental Disabilities, Mental Health and NADD that aims to assist people with co-occurring developmental disabilities and mental illness.

◊ **For information, contact Lisa Christie, NADD Conference Planner, at lchristie@thenadd.org.**

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Reservations	1-800-838-7914
Registration & Info:	info@fromhousingtorecovery.org

◇ Hosted by the Mental Health Association in Tulsa in conjunction with Mental Health America this forum provides state-of-the-art research and best practice information about current issues related to mental health. The 2012 Conference topics: critical issues of housing, recovery and community supports for people living with mental illnesses. **Contact Danielle Fritze at dfritze@mentalhealthamerica.net**

Riding the Rapids: Integrating Care for Diverse Populations, *9th Annual Training Conference*

September 27-28, 2012
Columbus, OH

Sponsor:	Multiethnic Advocates for Cultural Competence
Location:	Embassy Suites, Columbus - Airport, 2886 Airport Drive, Columbus, OH 43219
Reservations:	1-614-536-0500
Registration & Info:	www.maccinc.net Early bird registration deadline extended until June 15, 2012

◇ **Call for Proposals NEW DEADLINE - June 15, 2012.** Topical areas: health and mental health disparities; leading causes of death in diverse populations and how to close the gap; integration of health and mental health care reform; culture specific health seeking behaviors; best practices for specific populations (racial, ethnic, immigrants, LGBT, poverty, etc.); culture-specific outreach and use of modern media/social networks; holistic nature of care: physical, behavioral health and spirituality; collaboration with faith-based communities, etc.
For information contact Esta Powell at epowell@maccinc.net or call (614)221-7841.

NADD 29th Conference & Exhibit Show-2012
Mental Wellness in Persons with ID and ASD: Innovation, Collaboration & Quality of Life (IDD/MH)

October 17-19, 2012
Denver, CO

Sponsor:	NADD, Association for Persons with Developmental Disabilities & Mental Health Needs
Location:	Omni Interlocken Resort Hotel, 500 Interlocken Blvd., Denver (Broomfield), CO 80021
Reservations	(303) 438-6600
Registration :	Get Details & Registration information in July at http://www.thenadd.org/index.shtml

17th Annual Conference on Advancing School Mental Health:
School Mental Health: Promoting Positive Outcomes for Students, Families, Schools, and Communities

October 25-27, 2012
Salt Lake City, UT

Sponsor:	Center for School Mental Health & the IDEA Partnership
Location:	Salt Lake Marriott Downtown @ City Creek (75 S. West Temple) in Salt Lake City, UT
Reservations	(801) 531-0800
Registration & Info:	http://csmh.umaryland.edu/Conferences/AnnualConference/index.html Early Bird Fee deadline June 30

◇ Conference to emphasize a shared school-family-community agenda to bring high quality and evidence-based mental health promotion, prevention, and intervention to students in general and special education and their families. Featuring 12 specialty tracks with over 100 sessions including intensive trainings, advanced practice skills workshops, symposia, and a poster session and networking reception. Target audience includes clinicians, educators, youth and family members, nurses, physicians, psychologists, social workers, and other youth-serving professionals.

◇ **Conference Objectives --** Participants will: 1) List at least three major barriers to evidence-based practice in school mental health and identify at least three strategies to overcome them. 2) Define the concept of family-school-community partnership. 3) Develop written achievable strategies for program evaluation, focusing on outcomes valued by school and community stakeholders. 4) List at least three strategies to build policy support for school mental health.

◇ For information contact: Christina Huntley, 410-706-0980 or chuntley@psych.umaryland.edu
Scholarships http://csmh.umaryland.edu/Conferences/AnnualConference/AnnualFormsFlyers/17thRegistration.pdf

*Note: Mention of any project, service or event does not constitute endorsement by the Ohio Department of Mental Health