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FAMILY NETWORK SUPPORT AND MENTAL HEALTH RECOVERY

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Family members often provide critical support to persons living with a serious mental illness. The focus of this study was to determine which dimensions of the family support network were most important to the recovery process from the perspective of the recovering person. Consumers of a community mental health program completed in-depth structured interviews that included separate measures of social network support and recovery. Consumers named an average of 2.6 family members on the social network, interacted with family on a weekly basis, and were quite satisfied with their contact. This study revealed that support and reciprocity with family members are important dimensions of a personal support network that relates to the recovery process.

Social support networks have recently been recognized as an important component of the recovery process as outlined in the National Consensus Statement on Mental Health Recovery (Substance Abuse and Mental Health Service Administration [SAMHSA], 2004). Social networks are described as a nexus of interpersonal ties consisting of family, friends, or other individuals who provide some type of support that "leads one to believe that he or she is cared for, loved, valued, and belongs to a network with mutual obligations" (Milardo, 1988, p. 13). Social networks can be measured in terms of their size (e.g., number of distinct people identified), their function (e.g., type of support), or by the quality of their support (Vaux, 1988). Researchers have long contended that these networks directly relate to positive measures of psychological well-being, such as effective coping strategies, self-efficacy, and quality of life (Berkman, 2000; Berkman, Glass, Brissette, & Seeman, 2000; Hammer, 1983). Unfortunately, the loss or disruption of interpersonal social ties is one of the most common and devastating consequences of being diagnosed with a serious mental illness (Davidson & Stayner, 1997; Wright, Gronfein, & Owens, 2000). Inadequate or limited social networks can hinder the process of recovery by exacerbating preexisting psychiatric symptoms (Resnick, Rosenheck, & Lehman, 2004), increasing the likelihood of psychiatric rehospitalization (Goldberg, Rollins, & Lehman, 2003), and jeopardizing one's quality of life (Tempier, Caron, Mercier, & Leouffre, 1998).

Family Support Networks

Family members often represent a primary source of social support, especially among people living with a serious mental illness (SMI; Brown & Birtwistle, 1998; Pernice-Duca, 2008; Torrey, 2001). Studies have found that social support networks among those living with an SMI are typically smaller and more restricted, and primarily consist of kin as compared with the general population (Froland, Brodsky, Olson, & Steward, 2000; Perese & Wolf, 2005; Phillips, 1981). Schizophrenia, for example, is associated with functional impairments that can substantially interfere with or limit major life activities, disrupt daily living skills and occupational functioning, or interfere with the development and maintenance of social and family relationships (Boydell, Gladstone, & Crawford, 2002; Combs & Mueser, 2007). As a result, families

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may carry a substantial part of the caregiving role. Small, kin-dominated networks tend to demand more support from fewer family members. The reliance on a small and restricted network can increase interpersonal stress and lead to greater emotional reactivity in family interactions (Vaughn & Leff, 1981). These strained family relations are viewed as the result of a stressed network of support that contributes to less satisfying contact between family members (Magliano et al., 2003; Solomon & Draine, 1995). Furthermore, such degraded relations may actually aggravate preexisting psychiatric symptoms and thus serve as further detriment to the social functioning of adults living with a mental illness or mental health consumers (Stein, Rappaport, & Seidman, 1995).

Although adults living with a serious mental illness may describe family interactions as less satisfying than other types of social contacts, they are still most likely to turn to relatives in times of need. Many have described themselves as recipients of family support rather than members of mutually beneficial relationships. In a study examining the relationship between family support and psychological well-being, consumers expressed that depending on family for financial or instrumental support while simultaneously attempting to move toward autonomy created ambivalent emotional ties to their relatives, resulting in a significant source of additional stress (Green, Hayes, Dickinson, Whittaker, & Gilheany, 2002).

Some studies have also documented the role of reciprocity in relationships between adults with mental illness and their families (Greenberg, Greenley, & Benedict, 1994; Hamera, Cobb, & Burris-Fish, 1998; Horwitz, Reinhard, & Howell-White, 1996), but few have specifically examined its importance to the recovery process. Most notably, researchers looked at the types of contributions consumers give in easing the caregiving burden placed upon their families. Studies by Greenberg et al. (1994) and Horwitz et al. (1996) have also implied enhanced self-esteem among consumers when there is perceived family reciprocity. Confirming in a more recent study, Williams and Mfoafo-M'Carthy (2006) found that consumers whose contributions were respected or appreciated by family members were more likely to report a greater sense of personal self-worth and value to their family. This suggests that greater mutuality within a family support network appears to positively influence self-perceptions, which can arguably be classified as a crucial component of the subjective process of recovery.

Recovery

Because family is most often identified as a significant source of support, it is essential that one understand how and why family network support influences the recovery process. After decades of social support research (see Cobb, 1976; Cohen & Willis, 1985), only a limited number of studies have specifically examined this relationship.

Previous investigations regarding the connection between recovery and social networks have focused on the size of the family support network as a global measure of support. In one such study involving adults participating in consumer-run mental health services, Corrigan and Phelan (2004) found a positive correlation between the size of the family support network and greater recovery experiences, such as more hopeful attitudes about living with the constraints of a mental illness.

The multidimensional and multifaceted construct of recovery has been defined from a number of perspectives, including medical professionals, adults living with serious mental illness, and consumers of mental health services. Historically, recovery has been construed from the medical model as simply an absence of symptoms, a return to premorbid functioning (Mueser et al., 2002), or a generalized improvement in functioning as a result of treatment (Harding, Brooks, Ashikaga, & Strauss, 1987). However, the absence or remission of symptoms alone or the reliance on objective criteria is inadequate to describe the various ways in which one may experience recovery. In contrast, mental health consumers tend to define recovery as a process rather than an outcome of services (Corrigan & Ralph, 2005). The most significant experiences of the recovery process may, in fact, be subjective and immeasurable improvements in various areas of functioning, despite the presence of residual psychiatric symptoms. From this perspective, recovery has been depicted as a subjective psychological process that involves a deeply personal and unique transformation of one's attitudes, values, feelings, goals, and skills in life—better characterized as change in perspective rather than status (Anthony, 1993; Deegan, 2003; Schiff, 2004).

By analyzing the narratives of consumers in recovery, Ralph (2000) identified four dimensions of recovery: internal factors, external factors, self-care, and personal empowerment. Internal factors describe an autonomous or psychological dimension of recovery that includes self-determination, action toward change, and the development of hope, whereas external factors refer to interconnectedness with family members, friends, and consumers. Self-care is an extension of internal factors that reflect strategies to cope with symptoms, medications, and methods for gaining control over the illness. Lastly, personal empowerment encompasses both internal and external factors, reflecting a balance between the autonomous and relational dimensions of recovery. It is defined as a movement toward improving one's environment, having the courage to take control over one's life while utilizing social supports, and providing support to others.

Other consumer narratives have illustrated the importance of reconnecting with family or establishing supportive social ties as critical to maintaining a sense of personal well-being. In one study involving family support from the perspectives of consumers, Mancini, Hardiman, and Lawson (2005) described how positive messages from family members served to counter messages of hopelessness and incompetence often encountered in treatment settings or from mental health professionals. Family support also facilitated a more positive self-image and provided the self-confidence necessary to pursue personal goals. Consumers in the Mancini et al. (2005) study described family support as an ''unwavering'' belief in the ability to recover, which was crucial in fostering consumer optimism. This hopeful attitude among consumers has been described as a powerful catalyst in the recovery process (SAMHSA, 2004).

The concept of recovery is now officially recognized as a multidimensional, nonlinear process that incorporates both autonomous and relational elements (Bellack, 2006; Onken, Craig, Ridgway, Ralph, & Cook, 2007). The relational dimension of recovery incorporates the importance of increasing cordial interpersonal and family relations, family contact, and interconnectedness with others (Liberman & Kopelowicz, 2005). In 2004, the U.S. Department of Health and Human Services released the National Consensus Statement on Mental Health Recovery outlining 10 fundamental components (SAMHSA, 2004). The official statement reflected many of the constructs identified by original proponents in the field and recognized the importance of a supportive social network composed of family, friends, and mental health providers to assist recovery.

Study Objectives

Given the multidimensional nature of the recovery construct, the main purpose of this study is to investigate the influence of family network support on recovery. The concept of recovery in this study is conceptualized as incorporating both autonomous and relational processes. Autonomous processes include the focus on personal goals and self-efficacy, whereas the relational process is defined as the willingness to utilize and rely on social support. It is reflective of a personal ideology that incorporates goal orientation, autonomy, social support, hope, and personal confidence (Corrigan, Salzer, Ralph, Sangster, & Keck, 2004).

The first objective of this study is to describe family support characteristics as reported by consumers of a community mental health program. Dimensions of the family support network include (a) perceived support from family, (b) perceived reciprocity of support with family members, (c) frequency of contact, (d) satisfaction with contact, and finally, (e) importance of each member in the network. Second, a series of regression analyses were used to investigate which of these family support dimensions were important to autonomous and relational recovery domains as well as the recovery process as a construct.

METHOD

Sample

This study is based on a subset of 169 consumers across 15 community treatment programs known as clubhouses. A description of the larger study sample of 221 consumers along with the results of a social network analysis can be found elsewhere (Pernice-Duca, 2008). A brief description of the community treatment program and the population is provided below.

Psychosocial mental health programs. Community-based psychosocial rehabilitation programs such as clubhouses were instrumental in transitioning people from hospital living to the community during the period of deinstitutionalization of state psychiatric hospitals (Mastboom, 1992). Clubhouses offer individuals opportunities to learn new skills and socialize, as well as to identify oneself as someone other than a person living with mental illness (Macias & Rodican, 1997). The presence of supportive social relationships and the development of social and vocational skills are viewed as active agents of psychiatric rehabilitation and recovery (Deegan, 1988). Clubhouses are psychiatric rehabilitation programs based on a psychosocial model of intervention valuing consumer choice and control in a supportive, noncoercive social environment. Clubhouse participation is voluntary and one must become a member to participate. In general, these programs have assisted people in developing vocational skills, completing an education, and living independently in the community. Clubhouses have also been important to consumers combating loneliness and accessing social support (Beard, 1992).

Procedures. All study procedures were approved by the university institutional review board to protect human subjects. The larger study called for up to 15 consumers across 18 clubhouse programs to meet the minimum requirements of a power analysis set at an alpha of .05 (Cohen, 1992). Over 40% of the programs sampled in the state at the time of the larger study were recruited to establish variability across daily program attendance, location, and other organizational characteristics. The current study excluded participants from three clubhouses, who completed an initial pilot version of the social network interview. Therefore, consumers across 15 clubhouses were invited to participate in a 1-hr structured interview with a research team member. The structured interview included a number of standardized measures assessing various dimensions of functioning, including quality of life, recovery, as well as level of program participation and social support networks. All participants were self-selected volunteers. Consent to participate was obtained prior to the interview along with permission to release diagnostic information. All participants were compensated for their time.

Participants. Based on the results of a previous social network analysis, 76% of the participants in the larger study identified at least one family member as a source of support (Pernice-Duca, 2008). Therefore, a subset of 169 participants was drawn from the larger study of 221 participants. This subset ($n = 169$) was based on the number of participants who identified at least one family member as part of their network of social support. Participants who identified family members also completed follow-up questions pertaining to quality of support and level of contact. This subset of consumers was used to examine the role of family support and recovery.

There were no significant demographic differences between the sample of 221 participants and the subset of 169 drawn from the larger sample. Both samples were comprised of a slightly greater number of women than men, mostly Caucasian, living independently, and between the ages of 30–45. Over 60% of the participants lived on less than $10,000 per year, with Social Security as the main source of income. A small percentage of participants were living with their family of origin (17%) or procreation (10%), whereas 70% lived alone or with a roommate. The majority of participants had never married (78%), while 13% indicated living with a spouse or a partner, and 16% reported being parents of children under the age of 18. Marital characteristics and family characteristics of this sample are similar to another study involving clubhouse members (Mowbrary, Lewandowski, Holter, & Bybee, 2006). Participants were largely unemployed (63.3%) and most had completed high school or experienced some college (67%). Consumers participated in the mental health program an average of 18 hr per week. Consumers in the study were clubhouse members for a median of 3 years and 4 months, with memberships spanning less than 1 year to over 10 years. More than half of the participants in the subsample were diagnosed with a major affective disorder (58%), whereas 41.4% were living with schizophrenia or a related disorder.

Measures

Level of social functioning. Although recovery in this study is defined as a subjective experience, it is also important to control for objective indicators of recovery, such as the level of

impairment related to the psychiatric disability. The Social Functioning Scale (Birchwood, Smith, Cochrane, & Wetton, 1990) was administered to assess the level of social functioning, which was defined as the ability to function independently in daily activities. The measure included 13 items assessing various areas of social functioning, such as how well consumers were able to use public transportation, budget money, cook for themselves, or take care of personal hygiene (α = .75). This assessment was originally designed to measure the efficacy of family interventions with people with schizophrenia (Birchwood et al., 1990). An additional category was added to capture the extent to which consumers reported they were unable to perform a particular activity independently due to restrictions of the living environment (e.g., consumers were not allowed the opportunity to budget money, take a public bus, wash their own clothes, etc.). These responses were coded as "need of help due to living in a restricted environment." Responses were scored using a Likert-type scale from a low of 1 = need help not currently receiving, 2 = need help—restricted environment, 3 = able with help from others, and 4 = able to perform the task without help.

Social support network. The Social Support and Social Network Interview (SSSNI; Lovell, Burrow, & Hammer, 1984) was used and additional questions were adapted for the purposes of this study. Adaptation of the SSSNI is not uncommon in social network studies involving people with psychiatric disabilities (Trumbetta, Mueser, Quimby, Bebout, & Teague, 1999). The SSSNI utilizes four probe questions to facilitate the nominations of people who provide emotional, instrumental, and material forms of social support to the focal person (e.g., "When you are concerned about a personal matter—for example, something you are worried about or you are concerned about someone you are close to—who do you talk with? Who do you spend your time with? Who would you ask if you needed to borrow some money?") Five additional follow-up questions were adapted to the SSSNI to assess importance of the network member to the focal person, the perceived level of support received, the perceived level of support provided to each network member (i.e., reciprocity), the frequency of contact, and the level of satisfaction with contact. Each of these variables, except for frequency of contact, was scored on a 5-point Likert scale from 0 (not at all) to 4 (very much/extremely). Frequency of contact was recorded as 1 = yearly or less, to 4 = daily contact. The reliability coefficient was calculated across the five social support items by relationship category to yield the following Cronbach alphas for this sample: family α = .71; friends α = .73; staff α = .79; club members α = .79; and professionals α = .78. Psychometric studies on the SSSNI are limited, with one study reporting 2-week test–retest interclass correlations of .82 for nominations of mental health consumers, .66 for professionals, .47 for family members, and .59 for network size (Trumbetta et al., 1999).

Recovery. The Recovery Assessment Scale (RAS; Corrigan, Giffort, Rashid, Leary, & Okeke, 1999) was used to measure the extent to which clubhouse members experienced attitudes and beliefs related to a psychological construct of recovery from mental illness. The RAS is a 41-item questionnaire with a 5-point Likert scale that assesses the level of agreement with statements that reflect recovery attitudes and beliefs. Some examples of statements denoting a psychological construct include (a) "I can identify what triggers the symptoms of my mental illness," (b) "Fear doesn't stop me from living the way I want to," and (c) "I can handle it if I get sick again." The development of the RAS was a result of qualitative studies that analyzed the narratives of people living with and recovering from severe mental illness. As a structured measure, Corrigan et al. (1999) found that the RAS yielded good test–retest reliability at r = .88 and good internal consistency with a Cronbach's alpha at .93. It is also associated with indicators of personal well-being, such as quality of life, social support, empowerment, and self-esteem, but it is inversely related to psychiatric symptoms and age (Corrigan et al., 1999). A confirmatory factor analysis revealed recovery as a multidimensional psychological construct composed of five factors: Personal confidence and hope (α = .87), Willingness to ask for help (α = .84), Goal and success orientation (α = .82), Reliance on others (α = .74), and No domination by symptoms (α = .74; Corrigan et al., 2004). The RAS factors are based on 24 of the 41 scale items. A total recovery score was calculated for each participant by calculating a mean using all scale items.

RESULTS

Characteristics of Family Network Support

Before addressing study questions, preliminary descriptive statistics performed with the larger study sample ($N = 221$) revealed that males were more likely than female participants to nominate family as a source of support, $\chi^2 = 5.29$ (1, $N = 221$), $p < .05$. Consumers with schizophrenia were less likely than those living with a major affective disorder and other diagnosis, $\chi^2 = 8.33$ (1, $N = 221$), $p < .01$, to also identify family as part of their personal network of support. There were no other demographic differences (e.g., age, ethnicity), variations by social network size, or recovery outcomes. Therefore, a subset of 169 consumers (83 female, 86 male) who identified family as a source of social network support was selected for subsequent analyses. Of these consumers, 70 participants were living with schizophrenia and 98 were living with a diagnosis of a major affective disorder or other Axis I disorder.

*Family support network subset (*n*=169) analyses*. Parents, spouses, children, relatives, fiancés, significant others, and legal guardians were coded as family. Participants included in the subset identified between one and eight family members on the social network, with an average of 2.6 members. Participants were more likely to report receiving support from family members than engaging in more reciprocal forms of support, $t(169) = 5.83$, $p = .00$, $d = .34$. Participants also rated family network members with high importance ($F = 3.9$), reported weekly contact with family members, and indicated moderate satisfaction with the quality of their contact.

A preliminary MANOVA was performed to examine if there were significant differences in family network characteristics (i.e., network size, level of support, reciprocity, importance, contact, and satisfaction) based on gender and the following family configuration variables: living arrangements (lives with family vs. others), marital status (married vs. not), and the presence of children (has children vs. none). A significant main effect emerged for gender, $F(6, 155) = 3.00$, $\eta^2 = .10$, $p = .01$, and for children, $F(6, 155) = 3.15$, $\eta^2 = .10$, $p = .01$, and an interaction between children, marital status, and living arrangement, $F(6, 155) = 2.32$, $\eta^2 = .08$, $p = .03$. A significant multivariate effect allows for the examination of independent univariate tests. Males reported greater satisfaction with their family contacts as compared to females, $F(1, 168) = 6.72$, $p = .01$, and participants who reported having children had a larger family network than those who did not have children, $F(1, 168) = 13.95$, $p = .00$. However, those who had children, were married, and were living with family also nominated more family members as sources of social network support, $F(3, 167) = 11.94$, $p = .01$.

Family Network Dimensions and Recovery

Which family network support characteristics are important to autonomous and relational aspects of the recovery process? The subset of 169 participants was used to examine the relationship between family network support characteristics and recovery domains as measured by the RAS. Table 1 displays means and standard deviations and zero-order correlations for demographic, criterion, and predictor variables. Recovery subscales averaged from 3.6 to 4.3, reflecting a midrange of moderate-level recovery scores.

Separate multiple regression analyses across selected recovery domains were performed to examine the contribution of family network support dimensions. The recovery domains reflected two autonomous dimensions (i.e., Personal confidence and hope; Goal and success orientation) and two relational dimensions (i.e., Willingness to ask for help; Reliance on others). Table 2 summarizes the regression analyses and displays unstandardized regression coefficients (B), standard error of (B), and the standardized regression coefficient (β) for each predictor variable across each of the four recovery subscales. While controlling for level of social functioning, each of the following family network characteristics was entered (a) the size of the family network, (b) perceived level of family support, (c) perceived level of reciprocity with family members, (d) the level of importance of the family member, (e) frequency of contact, and finally (f) the level of satisfaction with family contact. Each model was significant in predicting aspects of recovery. The control variable of social functioning was important to the autonomous aspects of recovery (i.e., Personal Confidence and Hope, and Goal and Success Orientation subscales) but not the relational aspect of recovery (i.e., Willingness to Ask for Help and

Table 1
Zero-Order Correlations of Demographic, Predictor, and Criterion Variables in Regression Models

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Gender[a]	–	–	–															
2. Ethnicity	–	–	.00	–														
3. Age	43	9.7	−.07	−.15*	–													
4. Highest grade completed	12	1.0	−.12	−.13	.14	–												
5. Social functioning	3.5	.40	−.06	−.08	.00	.12	–											
6. Family network size	2.6	1.7	−.07	.06	.00	.05	.03	–										
7. Family support	3.1	.71	−.05	.06	−.16*	−.12	−.02	.01	–									
8. Family reciprocity	2.8	.99	−.01	.19*	−.11	−.18*	.18*	.02	.58**	–								
9. Importance of family	3.4	.64	−.09	.00	−.11	−.05	.02	.05	.48**	.38**	–							
10. Frequency of contact	3.9	.71	−.03	.11	−.12	−.15	−.05	−.22**	.07	.18*	.08	–						
11. Satisfaction	3.1	.78	.20**	.06	−.09	−.16*	.06	−.07	.43**	.47**	.42**	.25**	–					
12. RAS Factor 1[b]	3.9	.68	.06	.08	.03	−.09	.26**	.04	.30**	.40**	.10	−.00	.31**	–				
13. RAS Factor 2	4.2	.72	.00	.17*	−.02	.02	.09	.03	.23**	.31**	.09	−.02	.20*	.59**	–			
14. RAS Factor 3	4.2	.65	−.04	−.03	−.07	−.17*	.22**	.01	.42**	.43**	.19*	.01	.30**	.78**	.49**	–		
15. RAS Factor 4	4.3	.55	−.02	−.01	−.08	.10	.10	.08	.34**	.34**	.20*	.06	.23**	.58**	.44**	.49**	–	
16. RAS Factor 5	3.6	.91	−.09	.07	.22**	.03	.08	.07	.24**	.18*	.01	.09	.21**	.50**	.44**	.41**	.31**	–
17. RAS Total	4.0	.54	.01	.04	.00	−.04	.26**	.08	.39**	.45**	.14	.06	.30**	.90**	.67**	.81**	.64**	.58**

Note: $N = 169$. [a]Coding for these dichotomous variables is as follows: Gender: 0 = Female, 1 = Male; Ethnicity: 0 = Nonminority, 1 = Minority. [b]RAS = Recovery Assessment Scale (RAS) Factor 1 = Personal Confidence and Hope; RAS Factor 2 = Willingness to Ask for Help; RAS Factor 3 = Goal and Success Orientation; RAS Factor 4 = Reliance on Others. RAS Factor 5 = No Domination by Symptoms. *$p < .05$, **$p < .01$.

Table 2
Standard Regression Analyses for Family Network Support Dimensions Predicting Recovery Domains

Criterion variable	Predictor variables	*B*	*SEB*	*b*
Personal confidence and hope	1. Social functioning	.36	.12	.21**
	2. Family support	.14	.08	.15
	3. Family reciprocity	.17	.06	.24**
	4. Frequency of contact	−.08	.07	−.08
	5. Importance of family member	−.17	.08	−.16
	6. Satisfaction with family contact	.20	.06	.24**
	7. Number of family	.01	.02	.03
	$R^2 = .26$, $R = .51$, $F(7, 162) = 7.98$, $p = .00$			
Goal and success orientation	1. Social functioning	.34	.11	.21**
	2. Family support	.27	.07	.31**
	3. Family reciprocity	.14	.05	.21*
	4. Frequency of contact	−.06	.06	−.06
	5. Importance of family member	−.10	.08	−.10
	6. Satisfaction with family contact	.12	.06	.15
	7. Number of family	.00	.02	.01
	$R^2 = .29$, $R = .54$, $F(7, 162) = 9.46$, $p = .00$			
Willingness to ask for help	1. Social functioning	.10	.13	.05
	2. Family support	.09	.09	.09
	3. Family reciprocity	.18	.07	.24*
	4. Frequency of contact	−.09	.08	−.09
	5. Importance of family member	−.10	.10	−.09
	6. Satisfaction with family contact	.10	.07	.12
	7. Number of family	.00	.03	.01
	$R^2 = .12$, $R = .35$, $F(7, 162) = 3.16$, $p = .00$			
Reliance on others	1. Social functioning	.13	.10	.10
	2. Family support	.17	.07	.22*
	3. Family reciprocity	.08	.05	.15
	4. Frequency of contact	.01	.06	.02
	5. Importance of family member	−.01	.07	−.01
	6. Satisfaction with family contact	.05	.05	.08
	7. Number of family	.02	.02	.08
	$R^2 = .16$, $R = .41$, $F(7, 162) = 4.55$, $p = .00$			

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

Reliance on Others). Perceived reciprocity and satisfaction with family contact were important factors for predicting the subscale of Personal Confidence and Hope. Both perceived family support and reciprocity were also significant predictors of the Goal and Success Orientation subscale, which reflects an autonomous dimension of recovery. However, only perceived support was important to the Reliance on Others subscale, which reflects more relational processes. Perceived reciprocity with family members was the only significant characteristic that predicted the Willingness to Ask for Help subscale. Overall, family network characteristics that described the size and the frequency of contact with family as well as the importance of the family network member as a source of support were not significant variables to understanding the aspects of the recovery process.

Which of the family network support characteristics is most important to the recovery process as a whole? Family support, reciprocity, and satisfaction emerged as important contributors to specific aspects of the recovery process. A hierarchical regression analysis using the

block entry method was performed to examine which of the variables contributed to the most R^2 change. Because it was hypothesized that reciprocity would be most important, this variable was entered first, followed by support, and, finally, satisfaction. The final step included the control variable—social functioning. Predictor variables that did not contribute to the model were excluded from the analysis. Table 3 provides a summary of the results. R for regression was significantly different from zero for each of steps 1 through 4, respectively, $R_1 = .44$, $F(1, 168) = 41.15$, $p = .000$; $R_2 = .47$, $F(2, 167) = 23.84$, $p = .000$; $R_3 = .48$, $F(3, 167) = 16.67$, $p = .000$; $R_4 = .53$, $F(4, 162) = 16.17$, $p = .000$. Reciprocity alone accounted for 20% of the variance in recovery, whereas social functioning accounted for only 5% after partialing out reciprocity and support.

DISCUSSION

This study examined the relationship between family support and recovery attitudes and beliefs in a subset of 169 community mental health consumers who identified family as a source of social network support. Characteristics of family support were investigated, with specific emphasis placed on understanding the relationship between family support, reciprocity with family who provide support, and dimensions of recovery that reflect autonomous and relational processes.

Preliminary analyses within the larger sample ($N = 221$) revealed that men were more likely than women to nominate at least one family member as a source of social network support. This finding is in direct contrast to an early study examining gender differences in the social networks of people with serious mental illness (Phillips, 1981). When compared with women, men have tended to have less diversified social networks with greater reliance on family than friends (Antonucci & Akiyama, 1987). In general, participants nominated an average of 2.6 family members, indicated weekly contact with family members, and reported being quite satisfied with the nature of their interaction. With respect to satisfaction with family contact, males demonstrated a greater level of relational satisfaction. In general, participants reported beneficial weekly contact with an average of 2.6 family members. Consumers living with their children or other family members were more likely to have a larger family support network, which is similar to other social network study findings (Bengtsson-Tops & Hansson, 2001; Eklund & Hansson, 2007). Although consumers in this study reported regular contact with family members, the quality rather than the quantity of this contact was more instrumental to the development of positive recovery attitudes and beliefs. Similarly, one of the first investigations into social support networks and recovery is congruent with this finding (Corrigan & Phelan, 2004). These researchers also found that satisfaction with one's support system was most common within larger family networks. However, Corrigan and Phelan (2004) failed to find an association between perceived reciprocity of support and the recovery process, whereas this

Table 3
Hierarchical Regression Analysis Summary Using the Block Entry Method for Family Network Support Variables Predicting Recovery ($N = 169$)

Variable	*B*	*SE B*	β	R^2	ΔR^2
Step 1					
Reciprocity	.24	.04	.44**	.20**	
Step 2					
Support	.14	.06	.20**	.22**	.02
Step 3					
Satisfaction	.07	.05	.11	.23**	.01
Step 4					
Social functioning	.31	.09	.23	.28**	.05

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

investigation revealed a significant relationship to all RAS subscales. This may suggest that perceiving oneself as giving back increases the sense of equity in the relationship, thereby relating to a greater sense of recovery. Reciprocal support may be important in equalizing the relationship by increasing the capacity to share with others as well as being of assistance to others.

Equity in personal relationships also functions as a key agent of change in the recovery process (Brier & Strauss, 1984). Reciprocity of support increases self-esteem and self-efficacy, and being a provider of support can often be more beneficial (Bracke, Christiaens, & Verhaeghe, 2008). Similarly, this study revealed that family support networks that emphasized the importance of giving rather than just receiving were related to increased optimism about recovery as well as increased self-confidence and self-esteem. This reflects the positive influence of family support to dimensions of recovery reflecting autonomous and independent processes. Both giving and receiving in the context of a supportive family network were also related to the personal success of living with the constraints of a serious mental illness. These autonomous processes of recovery may serve as proxies to Knudson-Martin's (1996) interpretation of Bowen's concept of differentiation. Both recovery and differentiation, for example, are experienced as processes that occur within the context of relationships. According to Knudson-Martin, one moves toward differentiation in relation to others—not independent from them. Similarly, recovery in this study can be conceptualized as occurring within the context of a supportive family network. Thus, one recovers within a nexus of supportive relationships—not separate from them.

Family support and reciprocity were also the only two factors that contributed substantially to the relational dimensions of recovery. Consumers who perceived themselves as engaged in greater reciprocal family support were more willing to seek help or assistance, whereas primarily receiving family support predicted greater reliance on others. This latter finding mirrors the relationship found in one other study utilizing the same recovery measure (Corrigan & Phelan, 2004). These results suggest that consumers who perceive themselves as engaged in an equitable support relationship with family members may be more likely to seek out and utilize family members as sources of support in times of need and/or when managing the difficulties associated with the mental illness.

Limitations

The story that emerges from these data is that greater reciprocity and support within a family support network is indicative of more effective recovery, as delineated in the hierarchical regression analysis. Although consumers perceived themselves as mostly recipients of family support, reciprocation of this support with family members was related to greater recovery, even after partialing out the effects of the level of psychiatric disability.

A major caveat of this study is the use of cross-sectional data to test predictive relationships. It is unclear whether participants in this study had achieved some level of recovery independent of family support or if the presence and utilization of family support significantly influenced the recovery process. Given the constraints of cross-sectional data, it is equally plausible that greater recovery is possible when consumers reconnect with family or utilize family support as part of their own recovery network. Therefore, this relationship may be more systemic than linear, but analyses conducted with the larger longitudinal dataset did not confirm a predictive relationship between recovery measured at baseline and the size of the social support network assessed at a 15-month follow-up (Pernice-Duca & Onaga, 2009).

Social network nominations or the perceptions of support and reciprocity were not confirmed by interviewing a family member on the network. Stein et al. (1995) reported that incongruent perceptions of the quality of family relationships between consumers and their families were associated with greater dissatisfaction with family relations, greater psychiatric symptoms, and poor social functioning. In contrast, consumers who reported greater congruency with family on the perceptions of support exhibited better social adjustment, milder psychiatric symptoms, and less overall distress.

Positive appraisals of family support or reciprocity alone do not account for the variability in recovery. Recovery is a process that takes time, and it is multifaceted. It is unclear from this study what directly influences one's subjective account of recovery. It may simply occur

spontaneously in the absence of interventions, social and family support, and persistent symptoms (Corrigan & Ralph, 2005). It is important to emphasize that the sample used in this study, albeit on the severe end of the continuum of mental illness, was still considered stable and improving. The average age of participants was 44.5, which is similar to the mean age of consumers in similar studies. However, this may also signify that consumers have been living with mental illness for a significant portion of their life, and family support can change in relation to the consumer's age or changing circumstances. The level of functioning or disability from a psychiatric illness may also change as a function of maturity (Marsh & Lefley, 2003). Few studies have demonstrated the important role that people living with a serious mental illness may play as sources of help and support to aging parents and relatives (Greenberg, 1995). Whether recovery is a criterion or a predictor variable, this study does illuminate a small but important aspect of recovery—social support networks. Perceiving oneself as part of a reciprocally supportive relationship is meaningful to a personal sense of recovery and may act to reinforce positive social identities and family relations.

Clinical Implications

Mental illness affects not only individuals but also the families who care for them. Involving family members in the treatment approach is considered not only a preferred practice in the field but also a standard in mental health care (Mueser, Torrey, Lynde, Singer, & Drake, 2003; Spaniol, Zipple, Marsh, & Finely, 2000). This study helped to illuminate which aspects of the family support network were most important to the recovering person. Because the modern family therapy movement was initially an outgrowth of psychiatry, marital and family therapists are in a unique position to work with people with psychiatric disabilities as well as their families (Nichols & MacFarlane, 2001). Interventions that include family participation hasten the recovery process by assisting consumers and their families to capitalize on ways to work together. Marsh and Lefley (2003) have described the essential approaches to working with adults living with a serious mental illness and their families, some of which include family consultation models, psychoeducation, and traditional therapy. Family consultation is an appropriate and necessary prerequisite to the initial diagnosis or the onset of SMI symptoms. These family therapists assist in crises, identify adjunct mental health resources, and develop a service plan that includes the needs of both the family and consumer. Family psychoeducation includes many similar family consultation components, but it is dedicated primarily to giving families what they need—practical information about the illness. Families desire and need to understand not only the symptoms, the course, and the treatment options but also, most importantly, the ways in which to best support a loved one so as to encourage recovery (McFarlane, Dixon, Lukens, & Lucksted, 2003). These families may also be linked to local and national organizations for additional support (e.g., National Alliance on Mental Illness). Traditional modes of family therapy can help family members cognitively reframe the consumer as a potential resource by emphasizing the importance of meaningful social roles and identifying contributions the consumer can make to the family or others.

Family participation is also an asset to the treatment process; it provides a tremendous source of invaluable information for the purposes of assessment and aftercare planning. In addition to increased rates of recovery from SMI, for example, family participation has also led to decreased psychotic symptoms, recurrent hospitalization, burden of care, as well as the overall cost of treatment (MacFarlane, 2001; Penn & Mueser, 1996). Furthermore, interventions that focus on increasing positive and satisfying family contact and support have been associated with the successful transition of consumers from a state of homelessness into independent community living (Fisk, Rowe, Laub, Calvocoressi, & DeMino, 2000). From the perspective of consumers, family members and therapists who listen to them, believe in them, and treat them as equals are highly instrumental to recovery (Ralph, 2000).

Increasing opportunities for reciprocity. Relational by definition, reciprocity is typically defined as mutually responding in kind and like degree (Gouldner, 1960). Formal and informal support in this manner is typical of more effective social support networks (see Davidson et al., 1999, for review; Hardiman & Segal, 2003). Mutual support communities, such as drop-in centers or consumer self-help groups, operate on the premise of experiential knowledge and

reciprocity (Clay, Schell, Corrigan, & Ralph, 2005). In these peer support communities, it is the quality of participation rather than the quantity or duration that is most predictive of positive psychological well-being (Nelson & Lomotey, 2006).

Reciprocity also has collateral effects on those who do not directly receive support from their own personal network. For example, univocal reciprocity, extracted from Lèvi-Strauss's theory of reciprocity (Ekeh, 1974; Lèvi-Strauss, 1969), refers to the reciprocations that involve at least three people who only benefit from each other indirectly (e.g., A gives to B, and B in turn gives to C). Additionally, family support that is not directly reciprocated with families may be reciprocated with peers or others. Positive family support can lead to indirect forms of reciprocity that create more opportunities for social integration or community involvement. For instance, several mental health programs have begun to utilize consumer-providers in mental health service delivery (Dixon, Kraus, & Lehman, 1994; Mowbray, Moxley, & Collins, 1998). Unlike traditional client–therapist relationships, the consumer-provider is not bound by a strict prohibition against self-disclosure in the helping role but actually encouraged to participate in mutually revealing exchanges.

Families can encourage reciprocity by involving consumers in meaningful roles or activities that symbolize something greater than the task itself. In a study by Hamera et al. (1998), families of consumers most often described receiving *instrumental* support from the consumer as a form of reciprocity, which included taking part in tasks or activities around the house or community. Some anecdotal examples of reciprocal support provided by consumers in this study included babysitting for a sister or mowing the lawn for elderly parents. While these tasks may seem trivial, they are merely expressions of helping families recognize contributions consumers can make. Improved mental health and well-being are the products of such relationships as long as they are maintained through an operative balance of give and take (Bracke et al., 2008). It is also important to be cognizant of modifying family expectations of reciprocity, especially in situations where social functioning is compromised or diminished. In these circumstances, it may be important to assist the family in "constructing reciprocity" by helping the consumer and the family to reframe other ways to give (e.g., caring for oneself, showing emotional concern for others) without creating undue stress on the system (Greenberg et al., 1994).

Families and community-based psychiatric rehabilitation. This study was based on a sample of consumers involved in a psychosocial/psychiatric rehabilitation program supporting recovery. Recovery-oriented mental health programs such as clubhouses, self-help groups, and other consumer-oriented services are invaluable options for families and consumers seeking alternatives and adjuncts to traditional models of psychiatric treatment. Programs such as these have the potential to impact the recovery process by alleviating caregiver burden, as well as improve family interactions and relationships (Lefley, 1997). Practitioners can encourage families and consumers to move outside of small or kin-dominated social networks by including people and resources in the larger community (Biegel, Tracy, & Corvo, 1994; Wasylenki et al., 1992). On the continuum of mental health care, community-based programs offer people opportunities to develop skills, socialize with others outside of the family context, and be known as someone other than a relative with an SMI (Peckhoff, 1992). For instance, Pilisuk (2001) found that graduates of a social rehabilitation program reported greater reciprocity and equity in their family relationships. Psychosocial rehabilitation programs may allow consumers and their families to more willingly accept the idea that recovery is indeed possible (Deegan, 1988). Aging parents who care for adult children with SMI may find community-based programs such as clubhouses a welcomed means to alleviate caregiving concerns (Cook, Lefley, Pickett, & Cohler, 1994). Future studies exploring the impact of these programs on family burden, relationships, and recovery are warranted. To date, family participation is not a focus of many psychosocial programs, but there may be an indirect gain for families as well (Hall, 1999).

Future Research

Although a number of articles are written about recovery, there is little research examining the influence of family network support on the recovery process of consumers participating in a community-based mental health program (Stein et al., 1995). Although the perspectives of family members were not included in this study, their inclusion in future studies can only

increase our understanding of the influence of interpersonal factors on mental health recovery. Such studies may also document how specific family relationships (e.g., parent, sibling) affect recovery. Documenting the experiences of the consumer's family with regard to the recovery process may provide a much more comprehensive perspective than looking solely at the subjective viewpoint of the consumer himself.

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