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The Contribution from Friends, Family, and Service Providers

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**SOCIAL NETWORKS, LIFE SATISFACTION & COMMUNITY ADAPTATION
FOR PEOPLE WITH SEVERE MENTAL ILLNESS:
The Contribution from Friends, Family, and Service Providers**

By Gillian Graham Bevan

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF
REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

In the School of Psychology

UNIVERSITY OF OTTAWA

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Abstract

In the decades since the large psychiatric institutions closed their doors, people with severe mental illness have been attempting to live their lives outside of hospitals. The community integration movement has been criticized, however, for failing to adequately prepare these individuals for life in non-institutional settings, and also for failing to provide workable solutions to the social network deficits that have long been observed among members of this population. Certainly, researchers over the past thirty years have consistently observed (across all types of community living arrangements) that the social networks of people with severe mental illness are considerably different than those of the general population. They are much smaller, they contain proportionately more family members and mental health professionals, and they contain fewer friends. In addition, there appear to be some individuals who are exceptionally marginalized and isolated; people whose only interpersonal connections are with professionals. But are these individuals lonely? Some common misconceptions are that people with severe mental illness withdraw deliberately from social contact and that they enjoy living a hermit lifestyle. This thesis examined the social networks and the perceived social support of people who have been receiving case management services from a community mental health program. Specifically, I focused on individuals who have severe and persistent mental illness *and* who have been living on the streets, in homeless shelters and in other forms of inadequate housing, since there is some evidence that homelessness itself can have important ramifications for the social network. The study had several objectives. Firstly, I described the social networks (including the professional branch of the network) of participants. Next, I looked at the links between their objective social network features (such as total network size, number of professionals, number of 'close confidantes', etc.) and their well being (as measured by life satisfaction and community adaptation). I also examined the relationship between subjective social support and well-being. Finally, a qualitative analysis was conducted using an inductive content analysis approach. Participants were asked to describe the types of changes they would like to make in their relationships with family members, and they were asked about the changes they would

like to make in their relationships with unrelated individuals. As expected, participants described abnormally small social networks, and there was an over-representation of mental health professionals. The regression analyses suggested that the objective aspects of the social network may not be as important as participants' beliefs about their relationships and their satisfaction or dissatisfaction with their relationships. After controlling for the effects of gender and level of symptomatology, satisfaction with family relationships stood out as a predictor of overall life satisfaction. The qualitative results supported the quantitative results in some ways, but in other ways, the qualitative results contrasted with the quantitative. Participants were well aware that their social networks are small, and they wanted to have more friends. Importantly, they wanted to have friends who are "normal", i.e. friends who do not have mental health issues, friends who are socially acceptable and friends who look like valued members of society. In describing their family relationships, participants wanted to have more contact with their families and they wanted to feel more accepted by their families. A number appeared to feel criticized, patronized and devalued by their families. There existed a subset of participants who were profoundly socially isolated, with very limited sources of contact. Sometimes the only people they trusted and felt close to were their social workers, an observation that confirms some of the anecdotal observations from the front lines of community mental health services. The implications of these findings were then discussed, as they relate to psychosocial rehabilitation programming and the community integration movement. Finally, the implications for family support services, social skills training and other social network building initiatives were examined and discussed.

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Introduction

Humans are social creatures. Philosophers and poets have contemplated friendship and loneliness for aeons, long before the discipline of psychology was born. More recently, the links between our social connections and our well-being have been explored scientifically. Researchers conclude that, indeed with rare exception, people need at least some interpersonal contact in order to feel happy, secure, and fulfilled (Earls & Nelson, 1988; Hartog & Cohen, 1980; Weiss, 1973).

People with severe and persistent mental illness are no exception. They too need friendships and a sense of intimate connection with others (Perese, 1997). They want to love and to be loved. Yet people with severe and persistent mental illness who are living in the community are often socially isolated to an appalling degree. This appears to be the case, even when attempts at helping them to establish social networks have been made (Baker, Jodrey, & Intagliata, 1992; Klein, 1997; Livingston & Srebnick, 1991; Mueser, Drake & Bond, 1997).

Contrary to the myth of the deliberate, “antisocial” loner, the sad reality is that people with severe and persistent mental illness list the absence of meaningful friendships as one of their most significant unmet needs (Carling, 1995; Mercier, 1994; Perese, 1997; Walsh & Connelly, 1996). Unfortunately, while these individuals often express a desire for more friends, many appear to have difficulty initiating and maintaining close friendships because of weak or atypical social competencies, communication barriers and the stigma associated with severe mental illness (Kessler et al., 1985; for a review, see Mitchell, 1982; Turner & Marino, 1994). An additional factor (exacerbated by the current economic-political climate) is an increase in homelessness and inadequate housing for people with psychiatric disabilities, a phenomenon that has been observed in urban and rural communities across Canada and the U.S., over the past two decades (Cohen, 2002; Desai & Rosenheck, 2004; Lyon-Callo, 1998; Stuart & Arboleda-Florez;

Wong, 1997). Researchers have only started to address this unfortunate social trend but it appears that the combination of homelessness and severe and persistent mental illness can have important ramifications for the social network. In response to a need for objective research in this area, this project has selected only participants with a recent or current history of homelessness.

The social isolation experienced by people with severe and persistent mental illness was reflected in a 1990 research summary by the National Institute of Mental Health which concluded that “most people discharged from (psychiatric) hospitals spend much of their time alone, and even in cases where social networks exist, they are extremely limited” (as seen in Carling, 1995). Consistent with these findings, two and a half decades of ethnographic studies have confirmed that the social networks of people with severe and persistent mental illness look very different than those of the non-clinical population. Most notably, they are significantly smaller, and sometimes even non-existent (Atkinson, 1986; Crotty & Kulys, 1985; Cutler, Tatum & Shore, 1987; Hammer, 1981; Lipton, Cohen, Fischer & Katz, 1981; Segal & Holschuh, 1991). They often contain proportionally more family members (Anthony & Blanch, 1989; Grusky et al., 1990; Hall & Nelson, 1996) and they are more likely to contain “formal” supports such as social workers and other mental health professionals (Estroff, 1981; Grusky et al., 1990; Rosenfield & Wenzel, 1997). Thus, “friends” are substantially more represented in the networks of the general population than they are in the networks of the mentally ill.

In general, descriptive and qualitative research in this area has painted a picture of isolation and loneliness, coupled with observed patterns of what is sometimes labelled “socio-emotional withdrawal”. In addition to *structural* social network irregularities, it appears that the interpersonal relationships of people with severe and persistent mental illness also differ *qualitatively* from those of non-disabled individuals. Their social interactions may be less reciprocal and their affect may appear blunted during social

exchanges. This has led some researchers to characterize their relationships with others as more dependent and less emotionally complex (Cutler, Tatum & Shore, 1987; Rosenfield & Wenzel, 1997). However, the reasons for these observed qualitative differences are not fully understood, and mental health theorists continue to delineate the factors which may be contributing to non-reciprocal and/or emotionally-limited social connections.

Is there a relationship between the social networks of people with severe and persistent mental illness and their well-being? As we will see, this has proven a difficult question to answer. Adaptive functioning research has found links between social network features and well-being, with social isolation emerging as a significant predictor of poorer rehabilitation outcomes for this population even when level of symptomatology is controlled for (Brugha et al., 1982; Jonsson & Malm, 2002; Thornicroft & Breakey, 1991; Walsh & Connelly, 1996). And there is mounting evidence that having access to a reliable social network can positively affect outcomes such as relapse prevention, stress and coping, and community role adaptation. As a result, some mental health experts have suggested that the most important factors affecting the well-being of people with severe and persistent mental illness are not medical-pharmaceutical or symptoms-based, they are instead social factors (Mercier, 1994).

Although we know more than we did a few decades ago, our understanding of the social worlds of people with severe and persistent mental illness still lacks breadth and depth. Some have challenged mental health researchers to develop a more comprehensive understanding both of how social networks in this population are structured differently, and of how differences in network composition affect well-being (Walsh & Connelly, 1996). Until recently, much of the research which looked at social support in the lives of the mentally ill, involved comparisons with the general population (Denoff & Pilkonis, 1987; Walsh & Connelly, 1996). As a result, many researchers have

ignored the role of mental health service providers (the “formal” branch of the social network), choosing to focus solely on so-called “natural” or “informal” supports such as family, friends, neighbours, and acquaintances. Social network analysis studies, for example, have tended to ignore the presence of mental health professionals. In addition, research which looks at the links between social support and well-being has, more often than not, ignored or downplayed the contribution from formal contacts (Mercier, 1994).

It is imperative that mental health researchers achieve a better understanding of how the different types of relationships are related to well-being, given that the majority of individuals with severe and persistent mental illness are now attempting to live their lives outside of institutional settings. This research project has attempted to address some pertinent questions in this area. For example, how are familial and non-familial relationships perceived differently, and how do these perceptions relate to well-being? What roles do mental health professionals play in the lives of the most severely isolated? What contribution do they make towards the well-being of people who have no sources of human interaction apart from service providers? How are relationships with mental health professionals perceived?

Until recently, much of the research in this area has focussed on individuals in supportive housing or specialized group homes. Given the increasing prevalence of living situations such as single room occupancy (rooming houses), homelessness, the shelter system, and nursing homes (Cohen, 2002; Mechanic & Rochefort, 1990; Stuart & Arboleda-Florez, 2000), we may have a somewhat skewed picture of the social worlds of people with severe and persistent mental illness. A broader picture of social networks and social support issues is certainly called for, one which includes individuals with a history of street homelessness, shelter stays, rooming houses, and other forms of inadequate, substandard accommodation.

Mental health professionals and advocates, consumer-survivor activists, and family members of people with psychiatric disabilities all view social isolation as a potential barrier to recovery and community adaptation (Carling, 1995; Turner & Marino, 1994; Walsh & Connelly, 1996). It is clear that we can no longer accept the current status quo of community integration, which leaves too many people living in isolation and loneliness... hidden within communities that either reject them or do not know they exist. This research represents in part, an attempt to change this status quo by clarifying how both the formal and the informal branches of the social network relate to well-being.

Although there does exist a published research base that focuses on social support among people with psychiatric disabilities, the picture is by no means complete. Basic questions still need to be answered about the social networks of people who are living presently in the community, either on the streets, in shelters, in various other forms of substandard housing or in housing arrangements that necessitate an array of mental health outreach services. How many of these individuals have few or no friends, and how many are totally or partially estranged from family? And in the cases of individuals with little or no support from friends and family, is it acceptable that their network be comprised predominantly or exclusively of formal supports? What is the impact of this type of situation? Are mental health service providers ever described as “close confidantes”? In comparison, how often are family members and friends described as close confidantes? Which is more important, the number of relationships one has, or the quality of one’s relationships? And importantly, when people with severe and persistent mental illness are asked what types of changes they would like to make with respect to their social networks, how do they respond?

Only by asking these types of research questions will policy makers be able to effect responsible, well-informed decisions regarding community mental health services. And psychosocial rehabilitation programming will benefit greatly from an influx of

theoretically grounded research in this area. As we will see, there is an ongoing disagreement about the extent to which formal supports should be maintained in the networks of people with severe and persistent mental illness. Some assert that these relationships are by their nature problematic, even detrimental. In contrast, others contend that they are essential, conducive to well-being, and that they should in some cases be maintained for longer periods of time. Hopefully, studies such as this one will help to guide and focus some of these thorny political and philosophical debates.

I have attempted to ground my research in an understanding of how people with severe and persistent mental illness perceive their relationships, and how these perceptions differ from those of the general population. I have done so by using both using quantitative and qualitative research methods and by paying close attention to the thoughts and comments of research participants.

This study examined how well-being variables (overall life satisfaction and community adaptation) are related to the numbers of: (a) service providers (largely mental health social workers), (b) family members, (c) friends, and (d) “close confidantes” (which included individuals from all of the above categories) in the social network. The target population was individuals with severe and persistent mental illness. Gender and symptomatology were examined as factors that may have influenced the relationships between social network variables and well-being outcomes. Finally, the links between participants’ subjective evaluations of the social support they receive from others and their well-being were also examined.

Participants were also asked two open-ended questions about the types of changes they would like to make in their relationships with family members, and in their non-family relationships. Their comments generated a large qualitative database which was analysed using an inductive content analysis approach. The results of the qualitative analysis have complemented and informed the quantitative research findings. Taken

together, these findings further our knowledge of the relationship between social support variables and well-being in this population.

The study had four main objectives. The first was to paint a clear and detailed picture of the social networks (including professionals, family, and friends) of people with severe and persistent mental illness living in a Canadian urban context. The focus has been specifically on those with a recent history of homelessness, as these individuals have largely been overlooked in previous studies. Also, while we have made some gains in our understanding of the so-called *natural* or informal social networks of people with severe and persistent mental illness, many researchers have neglected to ask about formal sources of support. This is a glaring oversight, given that previous research has revealed a subset of this population who have very few contacts, and sometimes most of them are mental health workers (Grusky et al., 1990). Indeed for some individuals, service providers may be the sole source of social interaction (Rosenfield & Wenzel, 1997). This project may help shed light on this phenomenon, so that we may understand it better.

Many studies that have attempted to examine the relationship between perceived social support and well-being have also neglected the possible contribution from formal contacts. As a result, we may not have as clear a picture of the relationship between social networks and perceived social support as we had previously believed (Mercier, 1994; Walsh & Connelly, 1996). We need to learn more about the relative proportions of different individuals in the self-described social networks of mental health consumers, as well as how these different types of relationships relate to the perception of overall support. Finally, researchers need to learn more about which types of relationships are perceived as “close”.

A second research objective was to explore how the number of family members, friends, and professionals in one’s social network relate differentially to well-being for people with severe and persistent mental illness living in the community. As we will see,

some social critics believe that having social networks peppered with service providers is largely detrimental to people with severe and persistent mental illness, for reasons which will be discussed later (Carling, 1995; McKnight, 1995; Wolfensberger, 1992).

Ideological criticisms of the mental health service “industry” have been heated, to say the least. For example, many have questioned the desirability of individuals having long-term support relationships with mental health workers. However, objective research is clearly lacking in this area. This study may offer some clarification as to what kinds of contributions mental health service providers are making in terms of meeting the social support needs of their clients. It also helps to clarify how these relationships are viewed by the recipients of mental health services, for example, how often are service providers perceived as “close confidantes” by their clients?

It has been suggested that for individuals with psychiatric disabilities, the subjective experience of social support is the most important factor with respect to adaptive functioning and life quality (Hall & Nelson, 1996; for reviews, see Cohen, 1988; House & Kahn, 1985, Turner & Marino, 1994). However, the links between social network features, subjective experiences of social support, and well-being are still poorly understood, and research in this area remains at an early stage of development. Therefore, a third objective was to look at participants’ evaluations of their relationships with others, and how these perceptions in turn relate to life satisfaction and community adaptation. It is hoped that this study will further clarify our understanding of the relationships between network size, network composition, and individuals’ perceptions of their interpersonal connections, and well-being.

A final objective was to use qualitative analyses to explore and inform the quantitative findings. The use of a mixed methodology affords a “richer”, more detailed understanding of the ways in which social network factors are related to well-being, by adding a client-centred perspective to this study. In this way, we will be “giving a voice”

to participants, so that they may have the opportunity to tell us in their own words about some of the changes they would like to see happen in their social worlds.

In summary, there has been a surge of interest in the social networks of people with severe and persistent mental illness in the past 15 years. This study will make a unique contribution to the existing literature for the following reasons:

(1) The study's population is comprised of individuals with severe and persistent mental illness, with a history of homelessness. Individuals who experience periods of street homelessness, transience, eviction threat and inadequate housing have unique needs and vulnerabilities. People who are also struggling with mental illness may see an exacerbation of their symptoms during and after periods of housing crisis; and homelessness itself has important ramifications for social networks. It is likely that housing instability, mental illness and social network deterioration exacerbate each other in complex and cyclical ways, and an investigation of the causal links between these factors is beyond the scope of this study. However, in the face of increasing homeless populations (both locally and nationally) and in light of the dearth of high quality research in this area, it is important that we begin to focus more research attention on this population.

(2) As discussed above, this project investigates both formal and informal aspects of the social network. There have been several theoretical critiques which have addressed the presence, quality, and desirability of formal networks. However, to date, very few research projects have attempted to investigate the links between the formal network and well-being. Most research to date, has focussed on so-called "natural" social networks.

(3) This study also addresses participants' beliefs about their "close confidants", rather than being a simple head count of network members. For example, I have asked about which *types* of network members are perceived as close and confiding friends. As well, I was interested in whether or not formal network members were identified as close

confidantes. If so, how often did these “professional close confidantes” exist within a larger context of non-professional close confidantes, and how often were professionals listed as the participant’s *only* close and confiding relationships?

(4) Finally, this study’s use of quantitative and qualitative data will provide readers with a clearer understanding of the social network needs and desires of mental health consumers. Furthermore, it is hoped that this study will offer a voice to people who have not yet had the opportunity to tell their stories in their own words. Thus, it represents an attempt to accurately convey some of the life experiences of this vulnerable and unique population.

Practically speaking, it is hoped that this study will make a tangible difference in the following ways. First, a better understanding of the relationship between social networks and well-being will aid in the development of programs which try to optimize clients’ levels of both formal and informal social support (Jerrell, 1999; Jonnson & Malm, 2002; Klein, 1997; Walsh & Connelly, 1996). According to some theorists, social support research has so far offered very little in the way of guidance for the planning and execution of workable mental health interventions (Kennedy, 1989). Some contend that this is because “the culture of [network-building and social skills] intervention programs differs so strongly from the natural ecology in which supportive transactions take place” (Gottlieb, 1992, p. 307). In other words, intervention programs that aim to bolster the social network create an artificial environment and foster social behaviours which do not generalize to natural or genuine social settings.

Finally; to what extent is it problematic when formal supports comprise largely or wholly the social network of individuals with severe and persistent mental illness? Psychosocial rehabilitation programs may benefit greatly once researchers and program developers decide to fully acknowledge and explicate the role of mental health and other professionals, in terms of their social support provision (Mercier, 1994). Findings from

this research will help to inform both traditional psychiatric programming (Thoits, 1995) *and* recent programming models (such as “wrap-around” and case management services) with respect to the relative importance of both formal and informal sources of support.

Literature Review

This literature review explores some of the aforementioned ideological critiques of the mental health service industry and summarizes theoretical perspectives in the area of social support research. I begin by presenting prior research conceptualizations of social support. For further context and theoretical grounding, a historical overview of social support research involving the general population is then provided.

The present study does not investigate participants’ degree of social integration *per se*; however, I *will* briefly address some of the challenges of the community integration movement in my review, so that the reader may situate the study in its proper socio-cultural context. Along these lines I will examine some of the historical factors (e.g., de-institutionalization) that have contributed to the current state of affairs. This is followed by an overview of the various purported catalysts of the social network disintegration that occurs in the lives of people with severe and persistent mental illness. As well, the process of social network *reconstitution* which often results in the over-representation of formal supports is outlined and discussed.

I then turn to the current state of objective research into the social networks and social support of people with severe and persistent mental illness, and I introduce the ethnographic technique of social network analysis. Following this, I discuss the hypothesized links between network structure and well-being as well as the role played by individuals’ *perceptions* of their relationships with others. The construct of perceived social support is then clarified by outlining the crucial distinction between the positive and the negative aspects of social transactions. Along these lines, the potential

ramifications of interpersonal negativity are explored. Finally, research which has looked at the differential contributions from formal and informal components of the social network is examined.

The literature review was conducted using the PsychINFO, SocioFile, and Medline electronic databases, reflecting the fact that research on the relationship between social support, psychopathology and well-being, spans a variety of academic disciplines. Search terms included: social network; structural network analysis; social support; community integration; mental illness; psychiatric disability; family support; peer support; and formal support. As well, the bibliographies of pertinent articles were scanned for articles relevant to this research project.

Social Support Theory and History

Theoretical Conceptualizations of Social Support

Social support has been defined as having a number of dimensions and it has acquired the reputation of being a fragmented or “messy” research front. The confusion of the earlier years of social support research was reflected in Barrera and Ainlay’s 1983 review of literature from the 1960’s and ‘70’s, when they commented that “variables as diverse as the presence of littermates, the wantedness of pregnancy, and the care delivered by nursing and physician staff”, had all been discussed “as if they were operationalizations of social support” (Barrera and Ainlay, 1983, p. 57). Gottlieb added that “with each new study, a new definition of social support surfaces” (Gottlieb, 1983, p. 144). Contemporary thinkers have made headway in their attempts to conceptualize social support, but there remains a lack of consensus among researchers. This will be addressed in a later section (Rosenfield & Wenzel, 1997; Thoits, 1995; Walsh & Connelly, 1996).

Researchers initially defined social support as a “functional subset of a person’s social network” (House, Umberson & Landis, 1988, p. 302). As more information was gathered, theoretical refinement added clarity and depth to our understanding, and a number of workable social support operationalizations were introduced. More recently, Thoits defined it rather broadly as “the functions performed for the individual by significant others” (Thoits, 1995, p. 73). Other theorists have noted that there are different types of social support; significant others can provide instrumental, material, informational, and/or emotional assistance, for example.

The most objective avenue of social support research is that which looks at an individual’s social network by counting the members comprising it and examining the links between members. In the years following deinstitutionalization, anthropologists and community psychologists became interested in the social networks of people with severe and persistent mental illness, many of whom were living in the community for the first time (Cohen & Sokolovsky, 1978; Tolsdorf, 1976). They asked questions such as: How many people are in the network?; What types of connections exist between people in the network?; How dense are the networks (i.e. do people in the network know each other)? And; What types of people (i.e. family, friends, co-workers, mental health professionals, etc.) are represented in the network? This “structural network analysis” research is closely related to the concepts of “social embeddedness” and “social integration”, and the fact that these terms have been used interchangeably at times has been the source of some confusion. Research findings from this area will be examined in a later section.

Researchers also distinguish between *enacted* support (received support “transactions”) and *perceived* support. This reflects the fact that people’s perception of their social support (and of how available support would be *were it needed*) is not always a direct reflection of the numbers and types of support transactions they actually receive from network members (Felton & Shinn, 1992). Along these lines, researchers are

increasingly aware of the need to differentiate between the positive and the negative aspects of interpersonal relationships. Reviews of research involving the general population suggest that negative transactions such as ridicule and verbal hostility (including those stemming from sources of social support) can have a substantial detrimental effect on well-being (Barrera, 2000; Coyne & Downey, 1991; Rosenfield & Wenzel, 1997).

Understandably, interpersonal negativity influences how people feel about their social networks. The acknowledgement and study of negativity and dissatisfaction in relationships adds an important dimension to our understanding of the links between social networks and well-being. Thus, if a person lists a number of sources of social support but also feels berated or belittled by these sources, this will likely be reflected in their perceived social support as well as in their reported satisfaction with their different relationships. Furthermore, the relationship between negative social transactions and *decreased* well-being may actually be stronger than that which exists between supportive transactions and *enhanced* well-being.

Inquiries into the social worlds of people with severe and persistent mental illness have evolved over the past two decades from social support research involving the general population. This has largely been in belated response to vocal mental health workers, family members and consumer-survivor advocates, all of whom have expressed concern about the severe social isolation of many de-institutionalized psychiatric patients. However, the symptoms characteristic of severe and persistent mental illness, typically have a significant impact on social transactions and on the perception of these transactions. This complicates matters somewhat. For example, a person who is experiencing the cognitive distortions characteristic of some forms of mental illness may not feel supported, even as people in their networks try in vain to help. Also, people with

severe and persistent mental illness often have compromised verbal and non-verbal communication skills, both of which are foundational aspects of social transactions.

In summary, social support research has steadily gained momentum in the past several decades. In the process, the construct of social support has been re-conceptualized as a subjective experience, embedded within the objective social network and characterized by social transactions. The *perception* of support seems to be key, rather than the mere presence of potentially supportive individuals. This paradigm shift is the result of research demonstrating that the benefits of social transactions are experienced by the recipient only when these are perceived to be supportive, not necessarily when they are intended as such by the giver. Research has further clarified to what extent the presence of negativity (e.g. criticisms and hostility) within social relationships lessens the perception of social support. And there is evidence that negative social transactions impact negatively on well-being, potentially overshadowing the benefits that objectively larger networks might bring. These issues will be explored in more detail in later sections.

A Brief Historical Overview of Social Support Research

In the 1950's, North American and British psychology saw the emergence of the objective study of social support, a post-war response to phenomena such as increased transience and systemic changes in the relationships within families and communities. In the early and mid-1970's, a number of research and theoretical articles and books were published which stressed the importance of attachment and social connectedness (Bowlby, 1969, 1973; Cassel, 1974, 1976; Cobb, 1976; Gove, 1973; Weiss, 1973). Following this, there was an explosion of interest in the field.

As is often the case, psychologists' research interests reflected trends and themes occurring in the culture at large. Certainly, the interpersonal zeitgeist of this era was

captured far more poetically by its musicians, who were busy writing songs like “All you need is love” and “Eleanor Rigby”.... songs that reflected the importance of love, interconnectedness and community (and the dangers of social isolation) to a world that was growing increasingly fragmented and disconnected.

At the same time as the social support field was attempting to build a theoretical base, psychologists and medical researchers continued their exploration of the possible links between peoples’ social connections and their psychological and physical health (Broadhead et al., 1983; Turner, 1981). Throughout the 1980's, health psychologists attempted to understand the correlations between social support and individuals’ adaptation to any number of life events, such as job loss, abuse, cancer, trauma, and marital conflict (Barrera, 1986). This type of research continued through the 1990's and shows little sign of abating. Overall, research suggests that our connections with other people play a crucial role in our physical and emotional well-being (Price et al., 1988; Turner & Marino, 1994).

The perception that one has access to supportive social bonds appears to enhance well-being both directly and by “buffering” the impact of stressful events (Bloom, 1990; Gore, 1981). Conversely, the presence of conflicted and hurtful interpersonal relationships has been found to exert a powerful *negative* impact on mental health and general well-being. These findings apply to both clinical and non-clinical populations (for reviews see Cohen & Wills, 1985; House et al., 1988; Kessler & McLeod, 1985; Thoits, 1995).

Over the past two decades, there has been a growing interest in the role of social support in the lives of people with severe and persistent mental illness and how this differs from the social support experienced by the general population (Nelson et al., 1991; Thoits, 1995; Walsh & Connelly, 1996). For example, researchers interested in how social support serves as a possible “buffer” for stressful life events in the general

population agree that “the study of how social factors affect depressive disorder is distinct from the study of the social correlates of distress [as it pertains to the general population]” (Coyne & Downey, 1991, p. 406). It is worth noting at this point that the links between social support and depressive disorders have a somewhat richer history of research interest than do the links between social factors and other types of severe psychopathology, such as schizophrenia. This may be due (in part) to a greater awareness of the social support/social network implications for clinical depression aetiology and treatment interventions. However, in recent years, researchers in the mental health field have begun to pay more attention to the role of social networks and perceived social support with respect to the developmental course, life quality, and community adaptation of people with schizophrenia and other severe psychiatric disorders.

Societal and Systemic Underpinnings

The Ongoing Challenges of De-institutionalization and Community Integration

As noted previously, this project will address well-being variables such as life satisfaction and community adaptation. However, to better understand the relationship between social networks and well-being, we will need to look briefly at the conceptually distinct (but related) construct known as community integration. Community integration has been studied by many in the community psychology field as an indicator of the degree to which an individual truly *belongs* to a given community. For example; do they interact with their neighbours? Do they run errands for other community members? Are they visible in a “positive” way? Are they generally known and accepted? Although the construct is not being addressed specifically in this study, an individual’s level of community integration may be tied in closely with their ability to adapt to non-institutional settings, their level of social support, and their quality of life (Aubry & Myner, 1996).

The mandate of deinstitutionalization as it was initially presented nearly half a century ago was to improve the quality of life of psychiatric patients and to foster a true societal integration or “normalization” of the mentally ill (Aviram, 1990; Rochefort, 1992; Wolfensberger, 1987). Early on in the process, mental health advocates stressed that the cultivation and maintenance of natural social support networks would be the crux of both improved life quality *and* community integration goals (Estroff, 1981; Gottlieb, 1980). But thirty years after the peak of the psychiatric hospital discharges, communities continue to weather the aftershocks of this process and genuine societal integration alongside adequate or “healthy” levels of social support is still, sadly lacking in the lives of many individuals (Aubry & Myner, 1996; Baker, Jodrey & Intagliata, 1992; Johnson & Malm, 2002; Perese, 1997; Virley O’Connor, 2002; Walsh & Connelly, 1996).

Research reveals that for the majority of people with severe and persistent mental illness, the building and maintenance of healthy and adequate levels of social support remains an elusive goal. In recent years, community psychologists and other mental health theorists have stressed that social isolation among the mentally ill is a critical issue which needs to be addressed on many levels: the individual level, the level of service systems, and finally, on a societal level (Aviram, 1990; Carling, 1995; Mercier, 1994; Thoits, 1995).

In the sections that follow, it will be seen that the social networks of people with severe and persistent mental illness are quite small relative to the general population. Sometimes they are virtually non-existent. In addition to being smaller in size, network composition is very different; family members and mental health workers are typically over-represented as compared to friends. Friendships are considered among the most naturally occurring sources of social support because they tend to be based on common interests or viewpoints, and they are typically wholly voluntary and mutually satisfying.

For obvious reasons, family members and mental health service providers are not expected (necessarily) to fall within these parameters.

Different researchers have expressed a variety of ideas on what types of societal changes will be required to promote true community integration for persons with severe and persistent mental illness. For example, John McKnight (1995) has suggested that “true community integration means increasing interdependence in community life through a focus on the gifts and capacities of people who have been excluded from community life because of their labels” (McKnight, 1995, p. 122). There are many mental health critics who view; (a) the trend of relative social isolation, and (b) the predominance of family members and mental health workers (relative to friends) in the social networks of people with severe and persistent mental illness, as a failure in the attempt to promote adequate or genuine “deinstitutionalization” and community integration.

Some theorists suggest that the problem of isolation and marginalization among the mentally ill is rooted in faulty social service policy and in planning that does not reflect sufficient understanding of the barriers to “true” community integration (Carling, 1995; McKnight, 1992). Several researchers and evaluators have asserted that a lack of theoretical forethought, and interventions that are not well-grounded in research, have set a norm of mediocrity in community mental health programming (Felton & Shinn, 1992; Pomeroy, Cook & Benjafield, 1992). For example, a common criticism of deinstitutionalization is that many former patients were not given the tools or taught the skills necessary to adapt to life outside of the hospital. Services such as affordable housing, supported employment programs, and social skills training were either absent or badly planned and executed (Anthony & Blanch, 1989). Others saw community integration advocates as harbouring a hopelessly naive belief in the willingness of communities to embrace and nurture the mentally ill (Baxter & Hopper, 1984; Torrey & Wolfe, 1986; for a pertinent review of community care policy, see Aviram, 1990).

Former long-term psychiatric patients were often introduced into ill-informed, inappropriate communities, and they found themselves living among people who did not really want them as neighbours (Bassuk & Gerson, 1978; Coulton, Holland & Fitch, 1984). As a result, people with severe and persistent mental illness who have attempted to live their lives outside of psychiatric hospitals have often faced social rejection, stigmatization and, at times, overtly hostile community backlash. This type of climate cannot possibly be conducive to the building and maintenance of natural social networks. As Uri Aviram wrote in his thoughtful 1990 review:

“Thousands of patients were discharged into communities with relatively little thought given to their needs. The assumptions about the therapeutic force of the community and its openness to absorb the discharged patients, advanced by some in the community mental health field, provided the ideological and professional rationale for this process. Reality, of course, proved that this assumption was naive and wrong.” (Aviram, 1990, p. 83).

By the late 1980's, there were disproportionately high numbers of visibly homeless and destitute individuals in many major American cities, many of whom also manifested overt psychiatric symptomatology. (This unfortunate trend has also occurred in Canadian cities, and it has become a pressing social issue). As a result of this, critics began to speak of “the need for asylum” (Wasow, 1986, p. 327), and some went so far as to call for a reinvestment in large-scale institutional psychiatric settings (Gralnick, 1987). Clearly, new strategies are needed if we are to mend the current state of “community integration”, one which sees many people with mental illness continuing to live marginalized, lonely lives, often in tandem with abject poverty, victimization, high rates of unemployment, disproportionate levels of homelessness or inadequate housing, and social networks comprised largely of family members and people who are paid to be there (Anthony & Blanch, 1987; Aviram, 1990; Brown et al., 1996; Dion & Anthony, 1987; Mueser, Drake, & Bond, 1997; Shepherd et al., 1996).

In spite of all this, many community psychologists have remained unabashedly optimistic about the prospects of successfully integrating people with severe and persistent mental illness into the community. However, they assert that this will only occur given the adoption of workable programs and a rethinking of mental health policies, alongside a better understanding of community dynamics and more research into the social lives and the social support needs of clients (Aubry, 2003; Carling, 1995; Levin & Brekke, 1993; Mechanic & Rochefort, 1990; Rosenfield & Wenzel, 1997; Wilson, 1992).

Community Integration and Supportive Social Networks

In recent years, community psychologists and mental health advocates have asserted that, while many people with mental illness now *appear* to be integrated physically into communities (i.e., they may be housed alongside non-disabled individuals), they still remain *socially* segregated and profoundly isolated (Aubry & Myner, 1996; Mechanic & Rochefort, 1990). The outward appearance of community integration, in other words, can be deceiving. Certainly the post-institutional decades have provided ample evidence that physical integration into the community does not guarantee improvements in the size of social networks, nor does it increase individuals' satisfaction with the quality of their social ties (Caron et al., 1998; Estroff, 1981; Kennedy, 1989). Clients may seem to be adequately nested within supportive and sociable environments, such as clubs and consumer-advocacy groups. But those with poor social skills may be unable to take advantage of these environments, ultimately failing to cultivate new connections even though they express a desire for more (and closer) friendships (Kessler, 1985; Mitchell, 1982; Turner & Marino, 1994).

Social critics have, for the past decade, been challenging mental health researchers to re-evaluate some of their the deeply-held beliefs about the aetiology of mental illness

and to modify some of their assumptions about social networks and social support, in order that genuine community integration may happen (Carling, 1995). Alongside psychiatric consumer survivors, mental health advocates are asking program developers to work towards a true involvement of the mentally ill in communities rather than to continue their focus on the maintenance of “dependency-based relationships” with mental health professionals and family members (Taylor, 1995). These same critics have challenged mental health service providers to be more pro-active in the creation and maintenance of *natural* social support networks. Some even advocate the dismantling of what they see as imbalanced and paternalistic barriers between mental health workers and clients. However, an enactment of these types of changes will require a more complete understanding of the social support of people with severe and persistent mental illness, including network size and composition, and the levels of satisfaction associated with network subgroups. The role of the different network components with respect to quality of life and community adaptation also needs to be clarified before undertaking any radical new directions in community mental health programming.

Reciprocity and Imbalance in Relationships

The ongoing debate regarding the role of formal versus informal sources of support is better understood by exploring the concept of reciprocity. For the purposes of this study, formal supports are defined as professionals (i.e. social workers, physicians, nurses, psychiatrists, psychologists, etc.) while “informal” supports are family members and friends. However, it is important to keep in mind that “friends” are considered to be freely chosen as compared to family members. For people with severe and persistent mental illness, reciprocity tends to exist more so in relationships with friends and to a lesser extent with family relations. And while family members can ultimately *choose* whether or not to be present in the lives of their mentally ill relatives, they may often feel

that they have no choice but to be present and supportive, thereby operating out of a sense of obligation. The end result is that, practically and conceptually, “family members” and “friends” are very different subgroups, although they are both considered part of the informal social network. This potential source of confusion needs to be kept in mind when reading the sections that follow.

Diminished reciprocity in interpersonal relationships has historically been listed as one of the defining characteristics of severe and persistent mental illness (Nelson et al., 1992; Reissman, 1990; Rosenfield & Wenzel, 1997) and social network researchers have confirmed that people with mental illness consistently report giving less support than they receive (Baker et al, 1992; Cohen & Sokolovsky, 1978; Hammer, 1981; Parks & Pilisuk, 1984; Tolsdorf, 1976). Interestingly, although reciprocity appears to be an important feature in the links between interpersonal relationships and mental health, not a lot of research has examined people with severe and persistent mental illness as *providers* of supportive social transactions. Neither has the concept of reciprocity received as much attention in program development as it would appear to warrant.

An absence of reciprocity in the relationships of people with severe and persistent mental illness (as well as in the general population) has been found to be correlated with low self-esteem and low scores on measures of perceived mastery (Shinn et al., 1984). By the late 1980's, it was becoming clearer to researchers and clinicians that *providing* as well as *receiving* social support has important consequences for well-being (Maton, 1987; Reissman, 1990; Rook, 1987; Surtees, 1980). For example, in their 1992 study of psychiatric clients living in the community, Nelson et al. found that having provided emotional support to others was significantly related to positive affect, community integration, and perceived mastery.

Not focussing on reciprocity may be the result of a tendency to underestimate the extent to which people with severe and persistent mental illnesses are able to provide

support. Nelson et al. (1992) found that in their sample of subjects, support provision was clearly displayed towards friends, but much less towards family members, or understandably, to professionals working with them. Note that participants in this particular study were living in group housing, a reminder that living arrangements may play an important role in allowing people with severe and persistent mental illness to offer support to others.

When discussing the absence of reciprocity from formal relationships, contemporary researchers are urged to keep contextual factors in mind. Many institutions and mental health agencies continue to encourage clients to be passive, non-reciprocating recipients of caregiving, through their regulations and policies. For example, they may discourage mental health workers from divulging personal information or accepting goods or services from clients. As well, most agencies still do not allow workers to invite clients to their homes. But some researchers and consumer-survivor advocates believe that an emphasis on non-egalitarian professional interventions denies clients potentially therapeutic opportunities for providing support to others (Carling, 1992). Because of this, the “passive recipient” model of care has been challenged in recent years and it will most likely continue to be challenged. Obviously, power imbalances and a lack of reciprocity in relationships with mental health professionals are issues with complex ethical and political dimensions. To address them in detail would take us far beyond the scope of this proposal. These issues *are* touched upon briefly, however, in the following section.

The Debate Regarding the Desirability of Formal vs. Informal Social Support

According to John McKnight “The crisis we have created in the lives of excluded people is that they are disassociated from their fellow citizens. We cannot undo that terrible exclusion by a thoughtless attempt to create illusory independence” (McKnight, 1995, p. 123). Carling believes that community integration will hinge upon “arranging

support through freely given, non-paid relationships with non-disabled citizens, rather than assuming that all needs are to be met through a professional service system” (Carling, 1995, p. 23). These authors assert that relationships with mental health and other service providers are unnatural, antithetical to client empowerment, and dependency-creating (for review chapters on this topic, see Aviram, 1990; Carling, 1992; 1995; McKnight, 1995).

Both McKnight and Carling believe that (in addition to increasing natural supports) formal support should be minimized and the character of remaining formal support relationships should be radically altered. They contend that an emphasis on professional support networks creates an unhealthy dependency (McKnight, 1995) and that a “profound sense of alienation and despair” can occur when people with psychiatric disabilities come to realize that “their social networks are largely comprised of people who are paid to support them” (Carling, 1995, p. 42).

So... why are relationships with formal supports so strongly maligned by some? As touched on earlier, formal support is given by persons whose occupation or duty it is to do so. It often takes place in a somewhat structured or controlled setting for pre-set amounts of time, and it occurs in exchange for remuneration (which is usually provided by a third party in the case of psychosocial rehabilitation interventions). Unlike informal or “natural” relationships, formal relationships follow a pre-determined agenda designed to “help” the person in some way. As such, a central difference between the two is that *the giver of formal support cannot be assumed to be enjoying and/or benefiting socially from the exchange*. In other words, we can assume that reciprocity in these relationships is generally low, and that the exchanges are not necessarily even pleasurable.

Some researchers have suggested that a lack of reciprocity leads to interpersonal relationships characterized by “dependency” and “passivity” (Reissman, 1990). It is unlikely that many (if not most) formal relationships would be viable outside of the

professional setting, and this leads to questions regarding the value and the desirability of such relationships (McKnight, 1995). Some have criticized the mental health system for promoting unnecessarily artificial or “professional” boundaries between workers and clients. Others suggest that “the reason professionals seem to know so little about the social networks of people with psychiatric disabilities, is that their own social networks almost never overlap with those of consumers/ex-patients” (Carling, 1995, p. 44-45). This may, in part, have to do with differences in socio-economic and educational status which exist between formal supports and the people they serve.

These aspects of formal relationships (alongside issues related to the socially devalued nature of client-worker relationships) have led other critics to assert that the development of more ecologically balanced social networks (including relationships with non-disabled individuals) is essential because this will promote *normalcy* in clients’ lifestyles (Lemay, 1995; Pomeroy, Cook & Benjafield, 1992; Walsh & Connelly, 1996; Wolfensberger, 1994). It has also been suggested that the building and maintenance of *natural* rather than formal support systems should be the mandate of mental health services for pragmatic reasons. This should occur, firstly because of limits in the “scope and availability of formal services”, and secondly because of shifts in political support and funding patterns (Walsh & Connelly, 1996, p. 296). Yet, the mental health services sector has received ongoing criticism for failing to make significant progress in successfully establishing natural social networks (Carling, 1995; McKnight, 1995; Thoits, 1995; Wolfensberger, 1989).

Social isolation and the existence of social networks dominated by mental health workers and family members have been increasingly viewed as key issues among people with severe and persistent mental illness. As a result, programs which attempt to foster the development of so-called “natural” or informal social support networks *have* been developed and implemented (Levin & Brekke, 1993; Mechanic & Rochefort, 1992).

However, some contend that these types of interventions are not very effective; “Despite research optimism, social support interventions deliberately designed to boost or manipulate natural social ties and/or perceived support have often floundered or produced weak, equivocal results” (Thoits, 1995, p. 70). As well, social skills training (while popular) appears to produce inconsistent results which may not generalize beyond the settings and behaviours specifically targeted (for a review which discusses this, see Mueser et al., 1997).

What are the arguments and research findings that “defend” the value of formal supports? To begin with, some research suggests that having received support *when the help was given with few strings attached* (as would most likely occur with service providers), appears to promote perceptions of support availability (Uehara, 1990). Also, it can be theoretically argued that formal supports are much more appropriate for certain types of assistance that cannot be expected from informal supports, such as information transactions (e.g. related to therapeutic interventions) and some forms of instrumental transactions. Finally, anecdotal reports from service providers and researchers suggest that, when asked about the people in their lives whom they trust and feel close to, many people with severe and persistent mental illness name their social workers, physicians, psychiatrists, public health nurses, or case managers (Smith-Fowler, Aubry; personal communication, 2002). This is corroborated by research which indicates a subset of clients who view their relationships with mental health service providers as among their closest, most supportive, and most satisfying (Baker et al., 1997; Mercier, 1994). In these cases, the absence of formal supports might translate into a wholly inadequate or non-existent social network.

Few would assert that formal support networks can *replicate* the benefits of natural social networks. However, it is not yet clear whether or in what degree they are either *detrimental* (e.g., disempowering, devaluing) or *beneficial* to clients. Despite the

heated criticisms of the social service “industry”, all but the most radical mental health advocates will acknowledge that some needs must be met by professionals and others can be met by informal sources, and that either type of relationship can have a positive or negative impact, depending upon systemic and interpersonal variables (Carling, 1995; Felton & Shinn, 1992; Mercier, 1994).

Furthermore, some researchers are suggesting that members of informal and formal social networks can work together to improve clients’ adaptive functioning. Recent studies in this area have determined that friends and family members are able to help professionals provide better treatment in a number of ways (Becker et al., 1997; Brugha, 1995). Other community researchers support this cooperative and holistic direction in mental health treatment. They hypothesize that informal social networks can help clients to better access and make use of outpatient mental health services, and they suggest that synergistic effects can occur when informal supports work in tandem with formal supports to: (a) identify early signs of relapse; (b) actively mobilize the appropriate mental health resources when necessary, and (c) support formal rehabilitation efforts by facilitating access to formal and self-help resources, alleviating loneliness, and buffering the impact of stressful events.

In summary, the predominance of formal supports in the social networks of people with severe and persistent mental illness is seen by some critics as evidence that the system is failing or that the mental health industry is creating dependency and thus perpetuating itself unnecessarily, interrupting the mandate of true community integration. The development of healthy, natural social networks may, in fact, be the keystone of genuine community integration, but some researchers have countered that “prosthetic networks” of formal providers *can* and *do* have an important impact on the life quality of people with severe and persistent mental illness, and that the contribution from these relationships should be acknowledged, examined, and capitalized upon (Goering et al.,

1988; Harris & Bergman, 1988; Mercier, 1994; Thornicroft & Breakey, 1991). Finally, many acknowledge that formal and informal networks work best in tandem, when they communicate and capitalize upon each others' strengths and resources.

Unfortunately, the differential contributions from formal and informal branches of the social network have been largely immune to objective analysis. It is as if there is an uneasy and unspoken tension between the societal ideal (where healthy, peer-based interpersonal relationships take root and flourish and true community integration is achieved) and the current reality (for *many* people with severe and persistent mental illness such relationships have failed to develop, and service providers and family members remain the mainstay or the sole components of their social network). Clearly, there is confusion and much disagreement as to what best comprises an "adequate", "healthy", or "natural" social network for people with severe and persistent mental illness. Many researchers appear to have ignored or discounted the presence of formal relationships, as evidenced by the omission of these relationships from network analyses. In turn, social support is often conceptualized as something that can originate only in a naturally-occurring social network. Only further research will clarify this issue.

Rather than speculating about the pros and cons of the various forms of interpersonal relationships, there is a need to objectively examine the relationships between the different sources of social support and well-being outcomes. As we now turn to an examination of pertinent research findings, it will help the reader to keep in mind two questions which have helped to focus past mental health and psychosocial rehabilitation research in this area (Cutler, Tatum & Shore, 1987). The first question is: How does the objective presence of social support, alongside individuals' subjective experience of this support, affect mental health, physical health, and life satisfaction? Second, in what way is the social support literature relevant to therapeutic

intervention? This study addresses the first question directly, and provides clarification and avenues for further discussion in response to the second.

Social Support & Severe and Persistent Mental Illness: Research Findings

Social Network Research: Descriptive and Ethnographic Analyses

Researchers interested in psychopathology first began to look at the actual size and composition of social networks objectively, using a graphical tool borrowed from social anthropology (Crotty & Kulys, 1985). Labelled “Structural Network Analysis”, it places the individual in the centre of a sort of “mini-solar system” (Post, 1962) of friends, family, and acquaintances. It then portrays their social connections as radiating outwards in orbits of varying degrees of closeness. Structural features such as the density of the network and the quality of linkages between people (e.g. uniplex or “single role” relationships versus multiplex relationships) can all be graphically and objectively represented (Barnes, 1972; Boisevain, 1974; Wellman, 1981).

The power and the appeal of Social Network Analysis stems from the fact that a wide array of social phenomena, ranging from informal clubs and cultural events (such as weddings or Grateful Dead concerts), to families, businesses, and institutional settings, can be examined via the interconnections between individuals (Lipton, Cohen, Fischer & Katz, 1981). In the 1950's, several fascinating network analyses were published which richly depicted the social interconnectedness of people living in a small island village in Norway (Barnes, 1954) and then a neighbourhood in South London (Bott, 1957). Innovative mental health researchers saw the potential of this methodology, and by the 1970's they had begun applying it to populations of recently deinstitutionalized psychiatric patients.

In an early example of this type of research, Cohen and Sokolovsky (1978) conducted a structural network analysis of former psychiatric patients and other

economically-marginalized persons living in single room occupancy hotels in Manhattan. Among other things, they noted that the residents with no history of psychosis maintained social networks that were about twice the size of those with some previous or residual psychiatric symptomatology. Researchers over the next few decades continued to observe the social worlds of deinstitutionalized psychiatric patients, as well as younger clients who were less likely to have experienced lengthy stays in psychiatric hospitals. It was soon confirmed that the social networks of people with severe and persistent mental illness are consistently and reliably smaller than those seen in the general population (Atkinson, 1986; Crotty & Kulys, 1985; Cutler, Tatum & Shore, 1987; Hammer, 1981; Lipton, Cohen, Fischer & Katz, 1981; Segal & Holschuh, 1991).

Early researchers also noticed that the social networks of people with severe and persistent mental illness were often dominated by family members, and this finding has been replicated consistently (Anthony & Blanch, 1989; Cohen & Sokolovsky, 1978; Hall & Nelson, 1996; for reviews, see Mueller, 1980; Parks & Pilisuk, 1984; Pattison et al., 1975). The networks of people with severe and persistent mental illness tend to be denser (more of the people in the network know each other), although this particular characteristic may vary according to diagnosis (see below). Some evidence also suggests that the social networks of people with severe and persistent mental illness contain more “multiplex” relationships than do the social networks of non-disabled individuals (Beels, 1981; Breier & Strauss, 1984; Grusky et al., 1990, Hammer, 1981; Lipton et al, 1981). This means that network members tend to serve in several different capacities. They may provide combinations of emotional, physical, financial, and informational assistance, a pattern of support provision not seen as often or to such a degree in the general population.

After reviewing the social network literature and looking at how social network factors varied according to diagnosis, Mueller (1980) also concluded that the (informal)

social networks of people with *psychotic* symptoms were generally quite small and dense, and they contained proportionally more kin. The networks of people with predominantly *neurotic* symptomatology tended to be looser than the networks of those with a history of psychosis. Thus, there were weaker or non-existent connections between network members, but they were also sparser than the networks of non-clinical controls. Other reviews have found that, compared to the general population, people who have experienced episodes of major depressive disorder report having “fewer friends nearby who can help” and less contact with the friends they do have (Leaf et al., 1984; Billings & Moos, 1984). With remarkable regularity, people with a history of severe and persistent mental illness (regardless of diagnosis) are found to have greatly impoverished social networks, with averages ranging from 4 to 12 people. This is less than half the size of social networks seen in the general population where averages have been found to range between 20 and 30 members (Atkinson, 1986; Cutler, Tatum & Shore, 1987).

As we have seen, critics (Carling, 1995; Estroff, 1981; Rosenfield & Wenzel, 1997) and some researchers (Grusky et al., 1990; Mercier, 1994) contend that the social networks of people with severe and persistent mental illness contain disproportionate numbers of mental health professionals. Others however, have challenged the belief that service providers are reliably over-represented in the social networks of this population. In addition, some are challenging the contention that professionals are helping meet the social support needs of their clients. For example, a 1991 study of 234 psychiatric patients in sheltered care confirmed that friends were indeed, absent or severely under-represented (39% of subjects noted that they had *no* friends in their social networks) (Segal & Holschuh, 1991). But these researchers noted that service providers were not picking up the slack in this area, based on their observation that 71% of the individuals interviewed included *no* formal contacts in their self-described social networks! They concluded that “despite the current emphasis on case management and the involvement of

mental health professionals in monitoring the care of persons with severe and persistent mental illness... apparently, mental health professionals are not making a strong contribution to fulfilling the support needs of this group” (Segal & Holschuh, 1991, p. 1129). However, it should be noted that participants in this study resided in a sheltered care environment (rather than individuals living independently in the community) and aspects of the living environment may have influenced the composition of their social networks. As well, participants may have been hesitant to include formal providers as “network members” due to the wording of interview questions or due to social norms and taboos. These and other important methodological considerations will be addressed later.

The Relationship between Gender and Social Support

Studies which have investigated the relationship between social support and well-being outcomes have found it necessary to control for the effect of gender. Reviews of research from the general population suggest that women, more than men, tend to seek out support during times of distress and emotional upheaval (Cohen & Wills, 1985). By their own account, women are also more likely to receive supportive social transactions than men (Thoits, 1995), and women also generate higher scores on indices of perceived social support (Diener & Emmons, 1985). In addition, structural network analyses conducted in non-clinical populations reveal that women, in general, tend to have larger social networks than men (Schumaker & Hill, 1991). These gender differences with respect to social support are most likely tied in with cultural and socialization factors such as learned gender role behaviours.

Research that has examined the interaction between gender and social support in individuals with severe and persistent mental illness reveals a situation which, in many ways, mirrors that of the general population. Women with a history of severe and persistent mental illness tend to have larger social networks than do men, and they are

also more likely than men to ask for and receive support when they need it (Schumake & Hill, 1991; Turner & Marino, 1994; Grusky et al., 1985; Baker, Jodrey & Intagliata, 1992; Barrera & Ainlay, 1983). In addition, studies that have employed community adaptation indices indicate that women with severe and persistent mental illness place more of a value on community involvement and less of a value on self-reliance (Grusky et al, 1985). As a result, they tend to be more involved in their communities than are men. This would imply that women with severe and persistent mental illness might be more distressed than men when faced with compromised social networks.

Research with both the general population *and* individuals with a history of severe and persistent mental illness suggests that interpersonal conflict and negative social transactions are related to increased psychological distress, as well as to significant decreases in life satisfaction. And there is evidence that gender influences this particular inverse relationship (Barrera, 1986). In a recent study of people with severe and persistent mental illness (alongside the above-mentioned differences in network size and perceived social support) women were found to suffer more from the adverse impact of interpersonal conflict and negativity than did men, and gender appeared to play a moderating role in this relationship (Hall & Nelson, 1996). According to these researchers, women with severe and persistent mental illness are more likely to experience interpersonal conflict because they have larger networks and thus more opportunities for social interaction (both positive *and negative*). It would appear that the good does not necessarily outweigh the bad and, as a result, women suffer more from the social and psychological consequences of interpersonal conflict. Thus, the larger social networks enjoyed by women may be both a blessing and a curse.

“Network Crisis”: Suggested Causes of Social Network Deterioration

The phenomenology of isolation and social withdrawal among the mentally ill can vary considerably. There is evidence that the course and manifestation of social withdrawal and isolation may be influenced by variables such as marital status, gender, ethnicity, and, importantly, diagnosis and symptomatology (Felton & Shinn, 1992). The relationship between symptomatology, level of functioning and social support will be addressed in a later section. For now, let us turn to the process of network deterioration.

In recent decades, researchers have attempted to understand the social network disruption that often accompanies severe and persistent mental illness. To do this, they have found it necessary to address two important factors. First, the vegetative symptomatology which accompanies many forms of severe and persistent mental illness can easily preclude or impair the development of emotional bonds. Second, the psychiatric and cognitive impairments associated with illnesses such as schizophrenia interfere with logic and language functioning, both of which are crucial aspects of relating socially to others. Along these lines, some researchers have noted that “the atypical behaviour displayed by people with schizophrenia may impede the development of close, mutually rewarding relationships” (Kessler et al., 1985, p. 282). Other research findings support the theory that behaviours associated with severe and persistent mental illness, may lead to difficulty in establishing friendships (Barrera, 1986; Liem & Liem, 1990; Quittnes, Glueckauf & Jackson, 1990).

Some theorists and consumer advocates now view social isolation not so much as a symptom of psychopathology, but as evidence that people with severe and persistent mental illness (especially schizophrenia) have yet to be embraced or even tolerated by mainstream society (Aviram, 1990; Carling, 1995; Lipton et al., 1981; Turner & Marino, 1994). They posit that people with psychiatric disabilities are isolated not so much because they reject others, but because they are overwhelmingly rejected and stigmatized

by others. They withdraw to avoid the deleterious effects of other peoples' negative reaction to them (Dennof & Pilkonis, 1987; Gottesman, 1991). Others however, temper this view with the hypothesis that reduced social contact is, *for some individuals*, a form of protective distancing to help cope with their symptoms.

With respect to schizophrenia, researchers and clinicians have long been aware of a tendency for people with psychotic mental illness to live in isolation, "outside" of society. Traditionally, psychiatric conceptualizations viewed social isolation as *wholly* linked to the developmental course of schizophrenia (for discussions of this theory, see McGorry, 1992; Lipton et al., 1981). Thus, social withdrawal and the phenomenon of sparse social networks are sometimes viewed as symptoms or characteristic eventualities, rather than as *potentially avoidable* outcomes spun from a cycle of societal, interpersonal, and psychological interactions.

The chronic stress generated by mental illness may, in and of itself, contribute to the disruption of social networks. Research from the general population suggests that "although acute stressors may cause support mobilization in the short run at least, chronic stressors may entail serious costs to the social network and thus erode perceived or received support over time" (Lin & Ensel, 1989, p. 17). Finally, some researchers have suggested that the presence of psychopathology may decrease the presence of peer support indirectly by increasing peoples' dependence on kin relations. In short, family members feel the need to "take over" the social lives of their mentally ill relative when they suspect that he or she is starting to decompensate (Mitchell, 1982).

For some time, researchers have also been pointing to a link between repeated institutionalization and disruptions in social networks (Grusky et al., 1990). Some have observed that individuals with a history of multiple psychiatric hospital admissions have social networks less than half the size of patients at first admission, which suggests that networks are *disrupted and then atrophy*, rather than never having existed at all (Holmes-

Eber & Riger, 1990; Lipton et al., 1981). For example, in their conceptualization of schizophrenia as a “network crisis”, Lipton, Cohen, Fischer and Katz (1981, p. 443) noted that “in the years after the first hospitalization, individuals experience a marked diminution in the number and complexity of their social contacts”, with fewer remaining network members being described as “very important”, “good friends”, or “very close”, in the years following the first hospitalization.

Some researchers posit that, as individuals undergo repeated psychiatric hospitalizations they experience a “dying off” of their natural (peer-based) support network. In this way, a feedback cycle develops, with impoverished social networks contributing to additionally poorer outcomes for people with severe and persistent mental illness. Indeed, considerable emotional withdrawal has been found to accompany the increased social isolation that occurs following the initial psychiatric hospital stay (Lipton, Cohen, Fischer & Katz, 1981). When individuals decompensate or display more aversive symptoms, their networks continue to wither (Thornicroft and Breakey, 1991). Theorists interested in the cyclical nature of clinical depression and social isolation have suggested that “many prospective studies that purport to examine the social antecedents of depression, may actually be identifying precipitants of its recurrence and/or residual effects of past occurrences” (Coyne & Downey, 1991, p. 407).

In summary, it appears that in some cases symptoms may be too disruptive or distracting to allow for normal relational dynamics. And factors such as societal stigmatization and deliberate societal withdrawal due to negative or hostile reactions from other people (sometimes labelled “protective distancing”) may exacerbate to social isolation. In addition, family members may attempt to “protect” their mentally ill relative from what they consider to be dysfunctional or unhealthy friendships, a pattern of behaviour which may have an additional isolating effect. *On top of all this*, psychiatric hospitalization may cause unnatural interruption of peer relationships, and these

relationships often do not resume post-hospitalization. Social networks shrink and, furthermore, those individuals who remain are less likely to be construed as “close” or “good friends” (Lipton, Cohen, Fischer & Katz, 1981). The damage to social networks caused by psychiatric hospitalizations may, in turn, worsen symptomatology, and a vicious cycle is thus set in motion. Because of this, some community psychologists believe that a cooperative, holistic approach is the key to effective treatment. They believe that a re-focussing of mental health resources on friends and family members will help to prevent unnecessary further psychiatric hospitalizations (Goering et al., 1988; Harris & Bergman, 1988; Thornicroft & Breakey, 1991).

Clearly, researchers *and* program developers need to be more mindful of the fact that people with severe and persistent mental illness have often experienced a “shrinkage” of their natural network of friends, and the resultant gaps have been to some extent been filled by formal supports. More research in this area will provide a better understanding of these types of shifts in network ecology and it will serve to further clarify the impact of network reconstitution on clients’ life satisfaction and functioning. Studies that address both network composition *and* subjective evaluations of the different network branches will be important if we are to understand the sparse and unstable social networks that characterize this population. This type of research will be a crucial first step in the development of psychosocial rehabilitation programs which can effectively redress social network instability, at the same time as working to decrease social isolation and improve community integration.

The Relationship between Social Support and Level of Functioning

Some researchers have attempted to objectively delineate the relationships between increases in symptoms, adaptive functioning and social network atrophy (Thornicroft & Breakey, 1991). Along these lines, increased levels of isolation have been

found to accompany both the onset of severe and persistent mental illness *and* subsequent episodes of decompensation or psychotic breaks (Lipton, Cohen, Fischer & Katz, 1981). There is evidence that diagnosis and overall level of psychopathology are related to both *received* social support transactions and to *perceived* social support. For example, individuals who present with more severe symptoms, as well as those with a history of psychotic breaks (as opposed to major depressive episodes) generally report lower levels of received social support (Denoff & Pilkonis, 1987).

It is hardly surprising that levels of social competence and symptomatology tend to be related, and together they appear to be correlated with structural dimensions of the social network. Thus the ability to behave in a more socially normative fashion, and the ability to maintain a higher level of overall functioning across various lifeskills domains such as vocation, hygiene, health, and finances, appear to be related to both an objectively larger social network, and to higher levels of *perceived* social support (Estroff et al., 1994; Kessler et al., 1985; Mitchell, 1982; Tessler & Manderscheid, 1982). For example, in a study of clients with psychiatric diagnoses living in the community, scores on the Social Skills Schedule more strongly predicted the size of participants' social network than any of the other variables studied (Denoff & Pilkonis, 1987).

Social Network Features and Well-Being

As we have seen, some researchers have attempted to understand how the objective features of social networks are related to well-being outcomes (Denoff & Pilkonis, 1987). However, research in this area has been criticized for a lack of conceptual clarity, and results have been inconsistent (Felton & Shinn, 1992). There is some evidence that social network size is correlated with positive affect, social/emotional functioning, and quality of life variables. For example, a number of studies have found that people with severe and persistent mental illness who describe larger social networks

are more likely to experience positive feelings than those with smaller networks (Barrera, 1986; Nelson, Hall, Squire, & Walsh-Bowers, 1992; Morin, & Seidman, 1986; Gottlieb & Coppard, 1987). Unfortunately, the mechanism of this relationship is poorly understood.

In addition to the aforementioned buffering theory of social support, there appears to be a relationship between objective network features and well-being as measured by occupational functioning and self-care (Evert, Harvey and Herrman, 2003). Social network size and density has also been linked to psychiatric crisis/relapse and suicidality, and researchers have noted a correlation between sparse social networks and repeat emergency room visits (Bassuk & Gerson, 1980; Dennis, Harris and Bergman, 1987; Munves, Trimboli and North, 1983). Consistent with this is evidence of an inverse relationship between the size of social networks and various forms of in-patient psychiatric service use (Aberg-Wistedt et al., 1995; Faccincani et al., 1990; Fraser et al., 1985). Once again, the aetiology of these phenomena remains poorly understood. For example, sparser networks may be indicative of more severe symptomatology, which may itself be the cause of increased suicidality or increased emergency room visits. Again, longitudinal studies would serve to clarify the nature and directionality of these relationships.

Thornicroft and Breakey (1991) found that in an outpatient rehabilitation program for people with schizophrenia in Baltimore, clients who reported having very few friends in their network had worse outcomes on adaptive functioning measures, and they experienced earlier psychotic relapse. These researchers concluded that having a greater number of “intimate and supportive” personal relationships may be associated with better rehabilitation outcomes. Other researchers have noted that the presence of at least *some* degree of social network is theoretically necessary so that people can have a point of access to the kinds of functional assistance they require (Lin & Westcott, 1987).

In a study of 143 clients with non-organic psychosis living in London, England, researchers found that increases in informal network size were associated with a decreased likelihood of hospitalization and with *increases* in the use of outpatient mental health services (Becker et al., 1997). These researchers concluded that friends and family can play an important role in recognizing stressors and the onset of symptoms, and then guiding the individual towards appropriate outpatient services. As a result, they have suggested that the potential for positive rehabilitation outcomes may be enhanced by offering more intensive mental health education programming to the friends and family members of psychiatric patients. They have also suggested that network members be provided with training programs so that they can better co-ordinate their informal interventions and problem-solving with the available “formal” mental health services.

Social Support Transactions and Well-Being

“Enacted social support” has been conceptualized as the socio-emotional resources provided in a relationship (Denoff & Pilkonis, 1987), and measures of enacted support have been used to examine the types of supportive transactions that take place between individuals. Alongside differences in interpersonal reciprocity, there do appear to be other important qualitative differences in the types of social support transactions experienced by people with severe and persistent mental illness. However, when researchers have examined the *types* of support transactions characteristic of people with severe and persistent mental illness, the findings have been inconsistent. As well, *interpretations* of these findings have generated controversy due to what some see as biased conceptualization and poor theoretical grounding (Felton & Shinn, 1992).

Contemporary researchers have continued to distinguish between the different types of interpersonal transactions as a way of better delineating and understanding the links between social support and well-being. Thus, many now differentiate between

emotional, material, informational, and instrumental transactions, although published studies continue to introduce variations on these four themes. Many of the early comparison studies in this area found that people with psychiatric disabilities have fewer emotional transactions than do members of the general population (Beels, 1981; Breier & Strauss, 1984; Cohen & Sokolovsky, 1978; Hammer, 1981; Lipton et al., 1981; Tolsdorf, 1976). This (alongside lower levels of reciprocity) leads some researchers to conclude that the relationships of people with severe and persistent mental illness are based more on utility and need than on emotional connectedness (Beels, 1981). Obviously statements such as these are qualitatively-loaded and they carry powerful connotations which may exacerbate already existing negative stereotypes and social biases.

Some of the more recent findings in this area are beginning to challenge the somewhat entrenched assumption that people with severe and persistent mental illness have “emotionally-limited” relationships. For example, one recent study found that for people with severe and persistent mental illness, the receipt of emotional support was the most frequently cited of the four categories of supportive transaction (interestingly, these same individuals listed emotional support as the type of support they *most needed*) (Walsh & Connelly, 1996). Similarly, in their study of people with severe and persistent mental illness living in group housing, Nelson et al. (1992) found that emotional support transactions occurred more frequently than other types of transactions.

In summary, there has been ongoing debate as to both the *meaning* and the *mechanism* of social support transactions for people with severe and persistent mental illness. There do appear to be some qualitative differences in their interpersonal relationships, however researchers do not agree as to the reasons for the observed differences. For example, recall that some theorists conceptualize emotional withdrawal as a necessary and potentially adaptive reaction to worsening symptoms (Denoff & Pilkonis, 1987; Tolsdorf, 1976). However, a persistent pattern of withdrawal can

eventually lead to social isolation which is seen by most as maladaptive. Others have noted that emotional withdrawal is an understandable reaction for many of these individuals, given their experiences of hostility, stigmatization and rejection (Creswell, Kuipers & Power, 1992; Dozier, Harris & Bergman, 1987; Thornicroft & Breakey, 1997).

Once again, it is crucial that researchers begin to look beyond the surface presentation of social network structure and transactions, and find out more about individuals' *subjective perceptions* of their relationships. This will help to clarify the types of situations where there may be an adaptive function in keeping relationships emotionally "muted" and/or non-reciprocal. This type of research will also serve to better demarcate the fine line between an adaptive/protective reaction, and a pattern of behaviour which creates and perpetuates social isolation and leads to eventual declines in well-being. In the long run, it may prove difficult, if not impossible, to separate and evaluate these mechanisms, but studies such as the present are an important first step.

The Links between Perceived Social Support and Well-Being

Research from the general population suggests that the perception of whether or not one is being supported in or by a relationship will be influenced by past experiences, cognitions, and interpersonal abilities (Dunkel-Schetter & Bennett, 1990; Wethington & Kessler, 1986). As mental health researchers have expanded their knowledge of the social network structure and the interpersonal transactions of people with severe and persistent mental illness, there has been a growing awareness of the need to learn more about differences and similarities in the way that social support is *perceived* by members of this population, as compared to individuals who have not experienced a serious mental illness.

Alongside differences in the structural features of their social networks, people with severe and persistent mental illness differ from the general population in the ways

that they perceive and experience their interpersonal relationships. There is some evidence for example, that people with a history of depressive episodes are less satisfied with their familial, spousal and social relationships than are members of the general population (Billings & Moos, 1984; Leaf et al., 1984). However, these differences may be confounded by the observed differences in social support transactions outlined in the last section. Only a more detailed analysis will clarify to what degree this is a perceptual issue as opposed to stemming from actual differences in the types of social transactions that are taking place. There is a large body of research which suggests that social transactions change in response to a depressed person's behaviours, however a review of this research is well-beyond the scope of this project.

On the surface, one would assume that supportive gestures would have a cumulative positive impact, since these gestures suggest that the individual is "cared about and cared for by others, in spite of their mental illness" (Perese, 1997, p. 31). But when there is a discrepancy between an individual's receipt of supportive transactions and their perception of being supported, what could be the reasons? It is possible that the presence of cognitive distortions, combined with the complicated and frustrating task of trying to help someone who is in the midst of a severe psychiatric episode, can cause gestures that were *intended* as supportive to be seen as intrusive or annoying at best. At worst, these gestures may be misconstrued as acts of pity or contempt. Actions that were intended to be helpful may be perceived as intrusive or demeaning, or even hostile. In other words, an individual's assessment of interpersonal transactions may be confounded by their *perception* of what was going on during the interaction. Indeed, some research suggests that people with severe and persistent mental illness tend to under-report transactions which others have described as supportive (Cutler & Tatum, 1983). Other researchers have found striking differences between the more objective qualities of interpersonal relationships (for example, network size, frequency of contact, number and

qualitative nature of transactions), and the perceived availability and adequacy of social support (Felton & Shinn, 1992). Thus, it appears that actual social support transactions and clients' perceptions of available social support are inter-twined in ways that are complex and not fully understood.

Just as there may be discrepancies between the objective indicators of social support and individuals' perceptions, the beliefs of family members and professionals do not always correspond with those of their relatives and clients when it comes to judging the availability and adequacy of social support. A study by Crotty and Kulys (1985) found that the family members of individuals with severe and persistent mental illness often underestimated the positive social support contribution from friends and service providers, while overestimating the contribution from themselves and other relatives. Participants in this study reported feeling more supported by friends and neighbours than by family members. Conversely, family members often did not realize that the individual had nearly as many friends as they did.

Finally, while we must bear in mind that workers and family members may underestimate the size of clients' social networks, researchers should also be aware that many of the mental health consumers who report dissatisfaction with their level of social support, are honestly reflecting the stark reality of their impoverished social worlds. In support of this, some studies have found correlations between smaller social networks and lower scores on indices of perceived support (For a review of these types of studies, see Mitchell, 1982; Turner & Marino, 1994).

Because research into the links between social networks and perceived social support has proven inconsistent and difficult to interpret, it may eventually prove more useful to approach this topic from a qualitative or phenomenological perspective. The quantitative research perspective tends to see social support as a combination of objective circumstances, interpersonal transactions, and subjective interpretations. A better

appreciation of social support as an *idiosyncratic personal experience* might greatly enhance our understanding of this complex issue.

The Interaction between Social Networks, Subjective Experience, and Well-Being

Contemporary theorists remind us that the mechanisms of the relationship between the objective aspects of social networks (such as network size, composition and contact frequency) and outcomes such as community adaptation and quality of life, are not well understood (Hall & Nelson, 1996; Thoits, 1995). People with severe and persistent mental illness are often struggling with cognitive distortions, long histories of interpersonal conflict, and more than their share of societal stigma and ostracism. In light of this, it makes sense that, by paying attention to what psychiatric clients experience as supportive, we may better understand how objective social network features are related to quality of life and client functioning.

As with the general population, research with clinical populations suggests that perceived social support may be more important than the objective realities of; (a) how many people are in an individual's network, (b) how many supportive transactions they provide, or (c) frequency of contact. In a review of the literature, Barrera (1986) found that (for people with severe and persistent mental illness) the perception that support would be available, *if it were needed*, influenced life satisfaction more than the actual receipt of supportive transactions. Other mental health researchers support the view that it is an individual's perception of their potentially available support which has the greatest overall impact on well-being, with the objective qualities of the network itself playing a much smaller role (Dunkel-Setter & Bennett, 1990).

Evidence from both the general and clinical populations has suggested that one's perception that emotional support is available if needed, is associated *directly* with better physical and mental health as well as indirectly, by *buffering* the potential damage of

major life events and chronic stress (Cohen & Wills, 1985; House et al., 1988; Kessler & McLeod, 1985; Thoits, 1995). But in recent years, some social support researchers have challenged the interpretations of previous research findings. They now believe that “perceived social support” has not been well-conceptualized, and they posit that the *apparent* benefits of perceived social support are in large part, the absence of the damaging effects of non-sustaining and dysfunctional relationships.

The Darker Side of Interpersonal Relationships

Throughout the 1990's, psychologists continued to disagree about conceptualizations of perceived social support and there was ongoing debate as to exactly what the measures of perceived social support were assessing. Some suspected that perceived social support was weakly influenced by *positive* social transactions, but that (conversely) the experience of *negative* social transactions strongly reduced perceived social support, usually to the point of overshadowing the positive effects. As a result, what *appeared* to be positive effects stemming from the presence of a social network or from the experience of positive social transactions, were actually the “freeing” effects of not experiencing a high degree of abuse or dissatisfaction in one’s relationships (Coyne & Downey, 1991).

Twenty years ago, Fiore et al. (1983) differentiated four categories of *unsupportive* social transactions: a) emotionally unsupportive transactions such as criticism, ridicule, and rejection; b) socially unsupportive transactions such as exclusion from social and recreational activities; c) unsupportive tangible transactions such as refusing to provide practical help and finally, d) unsupportive problem-solving, described as encouraging someone to avoid, deny, or use inappropriate means of solving a problem. This early research opened discussion and served to remind researchers that there are costs as well as benefits to having a social network.

With respect to other populations, health psychologists have observed that unsupportive social transactions are more strongly correlated with well-being and life satisfaction than are positive social support transactions. Studies of people with cancer and people whose spouses have Alzheimer's disease, have revealed that unsupportive transactions occur less frequently than supportive ones but that unsupportive transactions are more strongly (inversely) related to peoples' emotional well-being (Dakof & Taylor, 1990; Fiore et al. 1983; Shuster, Kessler & Aseltine, 1990). As a result of findings such as these, some theorists have suggested the need to "turn the concept of social support on its head":

"The concept of social support was originally seen as a balance to the more negative view that social relations were sources of stress [for people with severe and persistent mental illness]. It was further intended to call attention to resources that might buffer or attenuate the effects of life events and other stressors. It now appears that a heterogeneous set of conditions influences perceptions of social support but that the negative features of relationships may predominate. Theoretical formulations and techniques of assessing support have not yet come to terms with this imbalance." (Coyne & Downey, 1991, p. 405)

A pertinent yet controversial avenue of research is that which has examined the links between family conflict and schizophrenia. Decades ago, researchers observed that high levels of what has since been labelled "expressed emotion" (criticism, hostility and parental over-involvement) in the families of people with schizophrenia, was correlated with increased relapse rates (Vaughn & Leff, 1976). Since then, other studies have replicated this finding with some regularity (see Mueser, Drake & Bond, 1997). However, as with other areas of social support research, the expressed emotion/family-conflict studies have been criticized for poor conceptualization, weak methodologies, and a lack of clarity. Some feminist theorists have characterized these types of studies as "victim-blaming" or simply another form of "mother-blaming" (Caplan, 1989; Kanter, Lamb & Loeper, 1987). Others contend that these types of studies only serve to promote

feelings of inadequacy among families who are already struggling with the difficulties of providing care and support for their mentally ill relatives (Seeman, 1988). Unfortunately, these ideological criticisms have hampered constructive scientific debate and have made it difficult for researchers to further our objective understanding of the links between family environment and schizophrenia.

In response to discoveries about the potential consequences of negative interpersonal transactions, some theorists and mental health workers have gone so far as to suggest that many people with severe and persistent mental illness are “emotionally burdened” by their families (and in many cases, by dysfunctional relationships with friends and spouses). Consistent with this, some professionals who work in the area of psychosocial rehabilitation have made the observation that their efforts to increase social involvement sometimes produces the unwanted side-effect of increasing stress and distress (Downs & Fox, 1993). Once again, more research is needed if we are to understand the balance between the positive and negative aspects of social contact for people with severe and persistent mental illness.

The Differential Contributions from Family, Friends, and Service Providers

A review of studies from the non-clinical population (examining the psychological impact of events such as illness and divorce) suggests that “research which has attempted to specify whether spouses, family, friends, or professionals are most efficacious in buffering stress, has been inconclusive” (Thoits, 1995, p. 65). With respect to people with severe and persistent mental illness, some theorists have suggested that the *least effective* support givers are family members, who are themselves strongly affected or threatened by the affected individual’s life crisis. There is some research support for this theory (Lehman, Ellard & Wortman, 1986). Some believe that the most appropriate and effective support givers may be other people with psychiatric disabilities, who are likely

to have had similar experiences within the mental health system and in the larger community (Thoits, 1995). However, the existence of disproportionate numbers of psychiatric clients in the networks of people who are already devalued and stigmatized by their own psychiatric history and symptomatology, is somewhat antithetical to the tenets of normalization.

Although objective research in this area is limited and findings are inconclusive, some researchers *have* attempted to investigate the differences between the contributions from formal and informal sources of social support. One recent study (Rosenfield & Wenzel, 1997) looked at how the formal and informal dimensions of social networks were related to life satisfaction. These researchers wanted to know which types of relationships had the greatest impact on life quality; those with “insiders” (defined as people who knew the workings of the mental health system, i.e. service providers) or those with “outsiders” (those who lacked experience with the mental health system). They discovered that the proportion of “insiders” versus “outsiders” in the social network made little difference to quality of life, but that increases in the number of relationships perceived as supportive was correlated with improvements in subjective life quality. As well, unsupportive relationships and negative social interactions were *strongly* correlated with life dissatisfaction and lower overall quality of life. Interestingly, both paths were found to be moderated by self-esteem.

The Potential Benefits of a Single Supportive Friend

There is evidence that the presence of even a small number of relationships that are perceived as close and confiding can facilitate the psychological well-being of people with psychiatric disabilities who are otherwise, extremely isolated (Andrews, Gavin, Begley and Brodie, 2003; Aro, 1994; Cohen, 1988; Cohen & Wills, 1985; Davidson et al., 2004; Meeuwesen, Hortunlanus and Machielse, 2002; Surtees, 1980). For these

individuals, it is possible that the existence of just a single friendship or close relationship may have a significant impact on life quality and adaptive functioning. As stated earlier, anecdotal evidence (and some research) suggests that there are some people who feel closest to their mental health workers and who perceive their workers to be friends. For the most isolated individuals, mental health professionals may be the *sole* source of social support, and/or the only people who are trusted.

In this respect, formal supports may be a sort of “social lifeline” for people with especially severe symptomatology, poor social competencies, atypical appearance and/or poor hygiene. Mental health workers may also be the mainstay of the network for those whose families have rejected them and those who self-isolate in response to repeated trauma and victimization. And elderly people with severe and persistent mental illness are at even higher risk of total isolation, since many of their family members and friends have died. If it is possible that the presence of just one supportive person in the life of an otherwise isolated individual can significantly improve physical and psychological outcomes, then clearly we must learn more about the role of mental health service providers. How often are they described by clients as being the sole network member or the sole *trusted* or the sole *close and confiding* relationship? It is possible that mental health professionals play a more significant role than has thus far been acknowledged in the lives of some of the most isolated and vulnerable members of our society.

Limitations of Previous Studies and Gaps in Research

Although researchers over the past two decades of have made some progress in *describing* the natural social networks of people who are living with severe and persistent mental illness, the relationship between their social worlds and their well-being is less clearly understood. As recently as the 1990's researchers continued to voice concerns about a serious lack of objective research into the social support needs, actual life

situations, and health and well-being outcomes of people with severe and persistent mental illness (Pomeroy, Cook, & Benjafield, 1992). More recent reviews of the literature reiterate these concerns, characterizing research in this area as remaining in the “preliminary” phase of development (Meeks & Murrell, 1997).

As we have seen, studies in this area have been characterized by a lack of conceptual and theoretical grounding in addition to methodological weaknesses. For example, many structural network analyses have neglected to ask about mental health professionals and other formal sources of support. In addition, our understanding of social support in this population has been largely based on studies of individuals who are adequately housed, thus neglecting the many (in fact the majority) who are homeless, living under constant threat of homelessness, or living in marginal housing. Finally, there appear to be numerous unaddressed confounds which may be influencing the results of studies in this area.

For example, some researchers have examined the social networks and perceived social support of individuals living in board and care facilities and group homes, while others have focussed entirely on individuals living “independently” or in supportive housing in the community. It may not be appropriate to compare the social networks of individuals living in such different environments. The end result is that, despite decades of descriptive research, serious gaps remain in our knowledge of the overall network size and composition for this population. As well, we still have a limited understanding of the role of social support in the well-being of persons with psychiatric disabilities.

In summary, one cannot dispute that the current status of community integration leaves much to be desired. Although shifts in mental health policy and philosophy have appeared on the horizon, there is still a dearth of *effective* programming for the development and maintenance of social support networks. The lack of an in-depth understanding of social support in the lives of persons with psychiatric disabilities

contributes to this paucity of effective programs. Therefore, it is important that researchers gain a better understanding of the differential network structures and differing perceptions of psychiatric clients, with respect to their relationships with mental health professionals, family members and friends. In addition, many researchers have used unclear or conflicting conceptualizations of social support and for the most part they have failed to adequately address or examine the effects of negative and dysfunctional relationships. The impact of negative social transactions and the role of unhealthy relationships will be a key piece in this particular research puzzle. And the links between different types of interpersonal relationships, subjective social support variables, and well-being must be better understood, given that previous research in this area has tended to find weak or contradictory correlations. Finally, future researchers would do well to further investigate the protective effects of a solitary close, confiding and trusting relationship in the context of an otherwise deserted social world, even if this relationship is with a mental health professional.

Rationale for the Current Study

The purpose of the current study was to examine how the objective and subjective aspects of interpersonal relationships are related to the life satisfaction and community adaptation of individuals with a history of severe and persistent mental illness and a recent history of homelessness. We also set out to gain an understanding of the types of changes participants wished to make in their relationships with family members, and with non-family members.

Through quantitative analyses, the study examined the relationship between objective features of the social network (size and composition) and well-being. It also examined the relationship between subjective evaluations of social support and well-being. To investigate these relationships, a set of empirically derived hypotheses were

tested, with objective social network variables and then subjective social support variables serving as the predictors of well-being, after controlling for gender and symptomatology. “Life satisfaction” and “community adaptation” served as the well-being variables.

This study will contribute to our understanding of the relationships between total network size, the numbers of individuals in the network subgroups (“professionals”, “family members”, and “friends”) and the psychological and adaptive functioning of individuals with severe and persistent mental illness. This study also advances our understanding of the relative importance of subjective evaluations of social support, vis-a-vis self reported and worker-rated well-being.

Objective One

As outlined earlier, this research study had four main objectives. The first objective was to describe and delineate the social networks (including mental health service providers) of individuals living in an urban setting, who have experienced both severe and persistent mental illness and homelessness. There are several components to this objective:

- a) Information about the size and composition of participants’ social networks has been compared to previous analyses which have examined the informal social networks of people with severe and persistent mental illness.
- b) Anecdotal reports (and some research findings) suggest that there is a subset of this population who are profoundly isolated and who list very few sources of interpersonal contact, sometimes all of them mental health workers. It is hoped that this project will contribute to our understanding of this somewhat hidden and unacknowledged societal phenomenon.
- c) Since many network studies have neglected to ask about mental health professionals and other formal sources of support, hopefully this study will answer some questions

about their predominance in the network. Along these lines, we present data about the proportion of clients who have mixed networks as opposed to networks dominated by formal supports or family.

d) Our sample is made up of individuals with a recent history of homelessness and unstable housing, rather than individuals who had been living with family members or in group homes (as with most previous studies). As a result, this study is intended to inform our understanding of the social network features typical of people with both severe and persistent mental illness *and* a history of homelessness. This is important given the housing crises presently faced by these individuals in many North American urban centres.

e) A comparison of the networks of female study participants versus male study participants is undertaken.

f) In addition to these descriptive goals, this study can provide feedback in terms of community integration goals. One of the long-held tenets of the community integration movement is that a more “natural” form of social support will eventually develop once clients are physically integrated into mainstream society (Estroff, 1981; Walsh & Connelly, 1996). Although we have not looked at community integration as a construct or a tested variable, our data do allow for an assessment of the degree to which informal social networks are, in fact, present.

Objective Two

The second research objective was to look specifically at the relationship between objective social network features and well-being for persons with severe and persistent mental illness. The relationships between total network size and community adaptation and between total network size and life satisfaction are therefore examined and discussed.

As well, the relationship between the sizes of different subgroups (i.e., family, friends, professionals, and “close confidantes”) comprising an individual’s social network and

well-being variables is examined. Along these lines, the contribution from the formal branch of the network is compared with that which stems from family members and friends. Given the aforementioned concerns about psychiatric clients' relationships with mental health workers, objective research in this area is much needed because:

- a) This research may help us to answer the question of whether or not having a high proportion (i.e. up to 100%) of formal supports is, in fact, as problematic as critics such as Carling, Knight and Wolfensberger suggest. Thus, this type of research may begin to clarify the untested assumption that relationships with service providers are somehow inferior to "natural" ones.
- b) Information about the relationship between objective social network features and well-being may be useful to researchers in the areas of resilience to stressful life events, health psychology and related fields which seek to understand the interaction between our social worlds and our well-being or quality of life. As well, these findings will be of use to those interested in the practical applications of social network research.

Objective Three

This study also attempts to delineate the relationships between psychiatric clients' subjective evaluations of their relationships and the well-being variables of life satisfaction and community adaptation. This is important because:

- a) It will improve our understanding of how objective versus subjective measures of social support predict well-being for homeless/unstably-housed individuals with severe mental illness.
- b) One of the aims of this research was to better understand the ways in which social network structure and subjective evaluations of interpersonal relationships, converge to influence the well-being of people with severe and persistent mental illness. This is important from both a "societal integration" and from a "quality of life" perspective. Currently, there is a growing interest in psychosocial rehabilitation programs and services

which have the aim of replenishing or maintaining “natural” social networks (Taylor, 1995; Carling, 1995). As mentioned previously, the social support research done thus far has not always been used to inform effective programming of this nature. A better understanding of the relative impact of social support variables will be crucial if we are to develop workable and compassionate mental health/community housing policy, and for effective psychosocial rehabilitation programming. Indeed, some researchers interested in social network enhancement programs have complained of a lack of theoretical forethought in the planning of projects, and a reliance on interventions that were not well-grounded in research (Felton & Shinn, 1992; Pomeroy, Cook & Benjafield, 1992).

Objective Four

Finally, we have seen that previous research findings in this area have often proved contradictory and difficult to interpret, thus some researchers have suggested that we be more attentive to the idiosyncratic, personal, and phenomenological aspects of social support. Along these lines, the qualitative analyses have provided us with a more client-centred perspective. With respect to how they perceive their social network, these analyses have given a voice to some of the life experiences of our research participants. It is expected that the qualitative analyses will both deepen our understanding of this complex issue, and that they will portray more descriptively the social worlds of this marginalized and highly vulnerable population.

Research Model and Hypotheses

In order to meet the study's objectives, a set of hypotheses were developed to guide the researcher. Research questions and their associated hypotheses are presented next.

Prediction of Life Satisfaction Hypotheses

Research Question One

After controlling for gender and symptomatology, is there a relationship between total network size and life satisfaction?

Hypothesis 1. After controlling for gender and symptomatology, it was hypothesized that a larger social network would be related to higher levels of life satisfaction. The rationale for this hypothesis follow from previously described studies which have shown a correlation between *total* network size and life satisfaction (Crotty & Kulys, 1985; Turner & Marino, 1994). The rationale also follow from research which consistently depicts extremely small social networks and high levels of isolation among people with severe and persistent mental illness, alongside a desire for change in this area (Mueser, Drake & Bond, Perese, 1997; Walsh & Connelly, 1996).

Research Question Two

After controlling for gender and symptomatology, is there a relationship between the sizes of the different network components and life satisfaction?

Hypothesis 2a. It was predicted that the number of individuals in the separate network components would contribute differentially to predicting participants' overall life satisfaction. Specifically, it was hypothesized that a greater number of self-described "close confidantes" in the social network of people with psychiatric disabilities would be related to higher levels of life satisfaction. There is some research evidence of a

relationship between psychiatric outpatients' perceived attachment and received nurturance from emotionally-close significant others, and their global quality of life (Caron et al., 1998). As well, research suggests that there is a dearth of "emotionally close" relationships in the lives of people with severe and persistent mental illness, and that one of the most common stated goals among this population is to augment their number of close or "*meaningful*" relationships (Perese, 1997). Rationale for this hypothesis also stems from the suggestion that for isolated individuals, having even a small number of social bonds which are perceived as positive, confiding, and supportive can be a *pivotal variable* in terms of overall life satisfaction (Cohen, 1988; Grusk et al., 1990; Rosenfield & Wenzel, 1997). Thus, for the most social isolated study participants, the presence of at least one person whom they consider to be a close confidante (be this in the form of a service provider, a family member or a friend) was assumed to have a significant positive effect on life satisfaction.

Hypothesis 2b. It was hypothesized that a greater number of "friends" in the social network would be related to higher levels of life satisfaction. The rationale for this hypothesis is based on studies that have demonstrated a positive correlation between *informal* network size and life quality variables such as overall satisfaction and positive affect (Earls & Nelson, 1988). It is assumed that friends who are listed as being in the social network are offering some positive contributions/support, or the client would have severed these ties completely and not considered them to be current members of their network. This also follows from previously discussed research which suggests that individuals with severe and persistent mental illness list an absence of "meaningful friendships" as one of their most crucial unmet needs (Perese, 1997).

Hypothesis 2c. It was hypothesized that a greater number of "mental health service providers" in the social network would be related to higher levels of life satisfaction. This contradicts some critics' opinion that a predominance of formal

supports leads to negative feelings such as “alienation and despair” (Carling, 1995).

However, these relationships may not be as important as friendships, because they may be less reciprocal and they may be characterized by fewer emotional transactions. However, research does suggest that some people with severe and persistent mental illness rely on these types of contacts (with formal network members) to alleviate feelings of loneliness and social isolation (Rosenfield & Wenzel, 1997), even if these relationships *are* less reciprocal and less emotionally invested. Additional rationale for the hypothesis stems from the observation that the professional assistance provided by formal contacts is often very important for physical/medical and mental health management, which are assumed to have some bearing on overall life satisfaction. There is also evidence that the presence of formal support providers in the network has a positive impact on perceived social support, which is related to increased life satisfaction (Cutrona & Russell, 1987).

Additional support for this hypothesis can be found in research which has examined the well-being of severely isolated individuals. For those participants who are without access to friends or family, the addition of as few as one or two service providers to the network may result in significant improvements in life satisfaction. Rationale for this hypothesis can also be found in research which suggests that some clients view their relationships with service providers as among their closest, most supportive, and *most satisfying* (Baker et al., 1992; Mercier, 1994). And finally, it was assumed that relationships with mental health service providers would be *less* likely to include elements of conflict and hostility, factors which are known to impede life satisfaction.

Hypothesis 2d. It was hypothesized that a greater number of family members in the social network would be related to a higher level of life satisfaction. Participants who have maintained relationships with family members were expected to have more opportunities for experiencing positive social interactions and practical assistance. It was thought that for many individuals, the presence of family members would help to detract

from a sense of total isolation and that this would translate into improvements in life satisfaction. As well, we assumed that individuals with access to family members would experience higher levels of received supportive transactions than those who have very few members in their social networks, and that this would translate into improvements in life satisfaction.

However, our prediction in this area was tempered by an awareness of research findings which present a very mixed picture in terms of the relationship between family network variables and life satisfaction, among people with severe and persistent mental illness. Negative interpersonal transactions may be more frequent in family settings, in contrast to relationships with service providers and friends. Thus, for *some* individuals, the presence of larger networks of family members may have also provided more opportunity for negative interaction, possibly leading to negative affect and decreases in life satisfaction. And, as we have seen, there is a growing body of research which suggests that negative social interactions may provide a skewed counterbalance to the expected positive relationship between network size and satisfaction (Coyne & Downey, 1991; Thoits, 1995).

In summary, the relationship between the number of family members listed in the social network and improved life satisfaction may have been diminished because of the conflicted or dysfunctional family relations of some participants. And those who included few or *no* family members among their list of network contacts, may have done so because they were experiencing partial or total estrangement from their families, a situation which is not uncommon among psychiatric survivors. These types of situations would have both reflected and impact upon participants' overall life satisfaction. Thus, the number of family members in the social networks of psychiatric survivors was expected to be positively related to life satisfaction.

Research Question Three

After controlling for gender and symptomatology, and after controlling for the size of the total social network and/or the contribution from individual network components, is there a relationship between subjective social support factors and life satisfaction?

Hypothesis 3a. It was hypothesized that a higher level of overall perceived social support would be related to a higher level of life satisfaction. The rationale for this hypothesis is drawn from a large body of research involving clinical and non-clinical populations, which suggests a robust relationship between subjective social support variables, such as the belief that support would be available *were it needed* and well-being variables such as satisfaction with life, positive affect, and psychological and physical health (Barrera, 1986; Dunkel-Schetter & Bennet, 1990).

Hypothesis 3b. It was hypothesized that a higher level of satisfaction with family relationships would be related to a higher level of life satisfaction. This hypothesis is supported by research which suggests that it is the subjective experience of family relationships, rather than objective qualities of the family network, which bears most on quality of life and life satisfaction variables (Barrera, 1986; Dunkel-Schetter & Bennet, 1990). It also follows from research which indicates that family relationships among the mentally ill are often strained, and that high levels of conflict and negativity in relationships generates a robust inverse correlation with overall life satisfaction. It was thus assumed that relationships which are characterized by higher levels of conflict and negative transactions would be reported as less satisfactory, and this will impact negatively on life satisfaction.

Hypothesis 3c. Along the same lines, after controlling for gender, symptomatology and the contribution from social network/component size, it was hypothesized a higher level of satisfaction with social relationships would be related to a higher level of life satisfaction. Again, the rationale for this hypothesis is based on

research from both the general and psychiatric populations, which suggests that perceived social support (which in our study overlaps considerably with satisfaction with social relations) has more of an influence on well-being variables than do the objective qualities of the network (Barrera, 1986; Dunkel-Schetter & Bennet, 1990; Hall & Nelson, 1996).

Prediction of Community Adaptation Hypotheses

Research Question Four

After controlling for gender and symptomatology, is there a relationship between total network size and community adaptation?

Hypothesis 4. After controlling for gender and symptomatology, it was hypothesized that a larger social network would be related to a higher level of community adaptation. The rationale for this hypothesis follows from research which shows that individuals with access to more avenues of social interaction and support (including those individuals who have been provided with “prosthetic networks” of mental health service providers) have lower rates of re-hospitalization, as well as higher scores on measures of adaptive functioning (Becker et al., 1997, Brugha, 1995).

Research Question 5

After controlling for gender and symptomatology, is there a relationship between the sizes of participants’ different network components and their community adaptation?

Hypothesis 5a. It was hypothesized that a larger number of “mental health service providers” in the social networks of persons with severe and persistent mental illness and a history of homelessness, would be related to a higher level of community adaptation. Much of the emphasis in current mental health programming is on helping clients to live more independently in the community, as well as teaching them skills such as hygiene, budgeting, and social skills. All of which should serve to improve participants’ overall

level of community adaptation. Thus, it was predicted that participants with access to more sources of mental health intervention, would benefit from these interventions and therefore demonstrate higher levels of adaptive functioning.

Hypothesis 5b. It was hypothesized that a larger number of self-described “close confidantes” in the social network would be related to a higher level of community adaptation. It was assumed that for those participants who are very isolated, the perception that there exist at least *some* close confidantes in the network (be they in the form of a service provider, family member, or friend) would lead to improvements in adaptive functioning. As we have seen, some research suggests that it is the *perception* that some sources of close and positive social support are available, which bears most on adaptive functioning outcomes (Cohen, 1988; Turner & Marino, 1994). The rationale for this hypothesis also follows from psycho-social rehabilitation research which suggests that subjective social support variables are positively linked to outcomes such as symptomatology, psychiatric re-admission rates, and other community adaptation variables (Kessler & McLeod, 1985; Hall & Nelson, 1996; Thoits, 1995).

Again (see Hypothesis 2a), the finding that even a limited number of close relationships can improve well-being has some bearing on this hypothesis. Thus, for highly isolated individuals, the presence of at least one social bond which is perceived as positive, confiding, and supportive has been found to have significant influence on a number of well-being variables, including overall adaptive functioning and rehospitalization rates (Grusk et al., 1990).

Hypothesis 5c. It was hypothesized that a greater number of “friends” in the social network would be related to a higher level of community adaptation. This follows from a relatively large body of research which demonstrates a consistent positive correlation between the size of the informal social network and measures of social integration and adaptive functioning (Becker et al., 1997; Thornicroft & Breakey, 1991).

Hypothesis 5d. Following from the same research, it was hypothesized that a greater number of family members in the social network would be related to a higher level of community adaptation. Once again, this is based on research which suggests a positive correlation between the size of the informal social network and measures of adaptive functioning (Evert, Harvey and Herrman, 2003). However, it was anticipated that this relationship may be weakened somewhat by the degree of negativity and conflict in the family relationships of some participants. Once again, recalling that there is a body of research which points to a link between family conflict and poorer adaptive functioning such as increased relapse and rehospitalization rates (Bubington & Kuipers, 1994; Gigerich & Rosenthal, 1993).

Research Question Six

After controlling for gender and symptomatology, and after controlling for the size of the total social network and/or the contribution from individual network components, is there a relationship between subjective social support variables and life satisfaction?

Hypothesis 6a. It was hypothesized that a higher level of overall perceived social support would be related to greater community adaptation. In line with the rationale for Hypothesis 2b, the rationale for this hypothesis also follows from research findings which suggest that subjective social support variables are positively linked to a number of community adaptation variables, including re-admission rates and adaptive functioning (Kessler & McLeod, 1985; Hall & Nelson, 1996; Thoits, 1995). And once again, there is some research which indicates that it is the *perception* of social support which bears the most on adaptive functioning outcomes (Cohen, 1988; Turner & Marino, 1994; Barrera, 1986; Dunkel-Schetter & Bennet, 1990).

Hypothesis 6b. It was predicted that a higher level of satisfaction with family relationships would be related to greater community adaptation. Once again, the rationale

for this hypothesis follows from research findings which indicate that subjective social support variables are positively linked to a number of community adaptation variables, including re-admission rates and adaptive functioning (Kessler & McLeod, 1985; Hall & Nelson, 1996; Thoits, 1995).

Hypothesis 6c. In line with the above rationale, it was predicted that a higher level of satisfaction with social relationships would be related to a higher level of community adaptation.

Research Question Related to Network Composition

Research Question Seven

Are homogeneous social networks associated with differential outcomes in terms of life satisfaction and community adaptation?

Hypothesis 7a. After dividing the sample into participants with “mixed” social networks (networks that contained members from all of the subgroups) versus those with “homogeneous” social networks (networks consisting predominantly of service providers or family members), it was hypothesized that the participants with mixed social networks would have higher levels of life satisfaction.

Hypothesis 7b. It was hypothesized that the participants with mixed social networks would have higher levels of community adaptation.

The rationale for these hypotheses was that participants with mixed networks would obtain the benefits associated with all three subgroups. From formal network contacts, they were expected to receive informational help, non-judgmental social interactions, positive social contact and medical assistance if necessary. From family members they were expected to receive practical assistance, emotional support, and financial and practical assistance. And from friends they may have received emotional support, and a sense of reciprocity. As well, some research suggests that when formal

and informal sources of support complement each other, this can have a “synergetic” effect which can lead to improvements in well-being (e.g., the family alerts physicians or social workers to problems that the identified client may not mention) (Brugha, 1995).

Exploratory Research Questions

There are a number of relationships worth examining which do not have a sufficient research literature to support specific directional hypotheses. These will therefore be addressed as exploratory research questions. They are as follows;

Question E1. Can having a single supportive relationship as opposed to none at all, make a significant difference in the life of a profoundly isolated individual?

Question E2. Are there gender differences in terms of the size and composition of the social network?

Question E3. Are subjective social network variables (satisfaction with familial relationships, satisfaction with non-familial relationships, and perceived social support) more strongly related to well-being variables for women than for men?

Question E4. After controlling for level of symptomatology and total number of network members, is gender predictive of perceived social support?

Question E5. After controlling for level of symptomatology and total number of network members, is gender predictive of satisfaction with friends?

Question E6. After controlling for level of symptomatology and total number of network members, is gender predictive of satisfaction with family?

Method

Context for the Current Study

This research study was conducted as part of an Ontario multi-site project known as the Community Mental Health Evaluation Initiative (CMHEI; for a full description of the project, please refer to Dewa et al., 2002). Locally, this initiative was conducted with the Ottawa branch of the Canadian Mental Health Association (CMHA), whose intensive case management service was the program under study. With respect to the CMHEI project in Ottawa, value-added components of this thesis research are as follows; the thesis project focussed on the links between structural network variables and well-being variables, and between subjective evaluations of social support and well-being of participants at study entry (i.e. baseline). In particular, it examined the differential contributions from various components of participants' social networks, such as friends, family members, and mental health service providers. In contrast to these objectives, the CMHEI study in Ottawa is intended to examine the differences in outcomes between intensive case management and standard care, using a true experimental, longitudinal design.

All participants in the Ottawa CMHEI project were interviewed at study entry, nine-month follow-up, eighteen month follow-up, and twenty-four month follow-up. Data collection took place between June, 1998 and November, 2003. Baseline data were collected between June, 1998 and Nov., 2001. This thesis project used data from the baseline interviews only, which occurred prior to randomization and assignment to either the treatment or control group.

Participants

A total of 147 CMHA clients were interviewed at baseline, and these made up the participant pool for the present study. Participants in the study were all clients of the Canadian Mental Health Association's housing outreach program. This program serves individuals with severe and persistent mental illness who are either homeless or at risk of becoming homeless. The eligibility criteria for receiving housing outreach services are: (a) that individuals be living on the streets or in shelters; (b) that they be under threat of eviction/at risk of losing their housing, or; (c) that they be living in temporary or inadequate housing (e.g., a rooming house). Referrals are provided by community mental health agencies (such as city housing workers), shelter staff, family members, and landlords. An emphasis on helping individuals who are having difficulty maintaining stable housing is in keeping with the mandate of the Ottawa CMHA which (alongside other local mental health agencies) is attempting to respond to this population's need for housing services.

With respect to mental illness, the CMHA follows the Ontario Ministry of Health's (1988) psychiatric disability guidelines, when assessing program/service eligibility. Under these guidelines: (a) a potential client must demonstrate a current psychiatric diagnosis (or a pattern of behaviours indicative of a severe and persistent mental illness); (b) the disorder must interfere with the person's ability to perform the activities of daily living; and (c) the mental illness must be either chronic in nature, or it must be considered a first episode of sufficient intensity to seriously interfere with the individual's functioning. At the start of the study, referral sources and participants provided information about any psychiatric diagnoses participants may have received. However, diagnostic information was not gathered systematically via hospital charts or standardized diagnostic protocol.

Measures

The measures used to test this study's hypotheses are detailed in the following sections. It should be noted that a variety of measures have been used in the Community Mental Health Evaluation Initiative. Some were developed for the common CMHEI protocol, which was used at all six participating project sites, while others were chosen or developed specifically for the Ottawa study. The measures used in this thesis research have all been used before with people with psychiatric disabilities. In the interest of keeping the total interview time manageable, some measures were shortened by the CMHEI Working Group.

Psychosocial Rehabilitation Toolkit (housing data)

Information about participants' current and recent past living situation (e.g. housing status and homelessness history in the nine months pre-baseline) was collected during a preliminary structured interview known as the Psychosocial Rehabilitation Toolkit (PSR) interview. The PSR Toolkit is an instrument developed by the International Association of Psychosocial Rehabilitation Services. It generates a core set of data to describe and monitor psycho-social outcomes for adults with severe and persistent mental illness, using a common format and set of definitions, so that outcomes across various rehabilitation programs can be compared (Arns et al., 2001).

PSR Toolkit interviews were conducted with participants' primary CMHA workers and they took place approximately one month after the baseline interviews. The worker assessed the participant's primary residential setting at the time of the interview, as well as their main residential setting over the past 9 months. This additional information about housing status has proven valuable as a reliability check to compare with the clients' self-reported housing data. It also provided valuable information about participants' pre-baseline residential/homelessness histories.

Demographic variables

Information about age, gender, highest level of education achieved, marital status, current source of income, average monthly income over the past nine months, and housing history were all gathered during the baseline interview. The baseline demographic information is self-report in nature.

Diagnosis

For the purpose of this study, inquiries were made during the PSR Toolkit interview about participants' diagnoses, as previously assigned by a licensed mental health professional. It should be noted that diagnostic information does not include the worker's belief about possible client diagnosis, rather it is any information the worker has come across in the past (e.g., in communication with psychiatrists, information provided by referral sources, and information obtained by looking through hospital charts & files) about formally administered diagnoses. Diagnosis may not necessarily be current, but may reflect any diagnosis given at any time during the participant's life history. Diagnostic information is provided for descriptive purposes only in this study.

Brief Psychiatric Rating Scale

The Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962; Ventura, Lukoff, Neuchterlein, Liberman, Green, & Shaner, 1993) was used to assess participants' level of symptomatology (Appendix A). Symptoms were queried using a structured interview with pre-determined prompts for the specific symptom domains. The BPRS is considered an efficient and economical means of describing and assessing the severity of symptoms associated with major mental illnesses. Several decades of research attest to its usefulness in terms of both description of patients and its use in mental health treatment studies. It exists in two forms, the original 18-item version, and a more recently developed 24-item (expanded) version, referred to as the BPRS-E. In the interest of keeping the overall interview as brief as possible, the 18-item BPRS was used to assess

level of symptomatology in this study.

The BPRS is a clinician-based rating scale which provides a rapid evaluation of symptoms common to a wide range of psychiatric disorders (Faustman, 1994). Clinicians are trained using a standardized protocol which consists of videotaped interviews and mock BPRS interviews. Quality assurance research has demonstrated that, after participating in the standardized training, interviewers with both advanced (graduate/medical) and predoctoral degrees are able to achieve and maintain high levels of reliability (Greenwood & Grant, 2001; Ventura et al, 1993). As part of the CMHEI study, two standardized training sessions were conducted and inter-rater reliability was assessed post-training. The intra-class correlation coefficient was 0.95 and item-level intra-class coefficients were also good, ranging from 0.65 for the Emotional Withdrawal item to 0.99 for the Hostility item (Sheldon, Aitchison-Drake, Foo, et al., 2002).

Inter-rater reliability coefficients for the 18-item version (global scores) have been assessed via a number of studies, and are consistently found to meet accepted standards, given the adherence to the standardized training format (Bell et al, 1993; Hafkenscheid, 1994; Trusty et al, 1996; Ventura et al., 1993). Studies which have compared the BPRS to the 30-item Positive and Negative Syndrome Scale (PANSS; Kay et al., 1988), as well as to the Hamilton Depression Scale and the Beigel Mania Scale (Andersen et al., 1989), support its concurrent validity. The BPRS has also been evaluated in cross-validation studies of short-stay psychiatric patients and found to correlate well with the psychiatric evaluations of experienced raters (Hafkenscheid, 1992). In other studies, BPRS ratings of schizophrenic inpatients were found to correlate adequately with trained raters' paper-and-pencil "judgement analyses" (Andersen et al, 1989).

In an assessment of its utility in forensic settings, BPRS rating profiles conducted by forensic mental health workers were relatively accurate when compared to previously

determined psychiatric profiles. Other researchers have found the BPRS to be useful in distinguishing the positive and negative subtypes of schizophrenia (Kulhara et al., 1991). Finally, principal component analyses of the measure's various symptom domains attest to its construct validity (Mogge et al., 2002) and it has been shown to correctly predict diagnoses of schizophrenia, bipolar disorder and depressive disorder (Hopko et al., 2000).

Social Network Measure

The Social Network Measure (Nelson, Hall, Squire and Walshe-Bowers, 1992) was used to assess the structural aspects of clients' social networks (Appendix B). This measure is derived from the one used by Nelson and colleagues, in their research examining the links between social networks, perceived social support, and housing characteristics of people with psychiatric disabilities (Nelson, Hall, & Walsh-Bowers, 1998; Nelson, Hall, Walsh-Bowers & Wiltshire, 1994; Hall & Nelson, 1996).

The Social Network measure asked participants to list the family members, friends, and professionals that they consider important in their life, and with whom they had been in contact at least once (including telephone/written contact) in the past nine months. In listing members in their social networks, participants were asked to provide the initials of each network member, his or her role (i.e., brother, social worker, partner, friend), their gender, and whether or not they have ever been diagnosed with or treated for mental illness. In this way, the size of each separate network component was assessed, and the number of individuals listed for each component was summed, creating a *total network size score*.

Test-retest reliability coefficients for this measure have been assessed by Nelson et al. (1992), using a student sample. The family component produced the most reliable results, with a coefficient of 0.94. The coefficient for friends was 0.83, and for service providers it was 0.73. Total network size demonstrated a test-retest reliability of 0.89.

Social Provisions Scale

Perceived social support was assessed using a shortened version of the 24-item Social Provisions Scale (Cutrona & Russell, 1987). This scale was originally developed to assess subjective experiences of positive social support. It generates six social support factors, referred to as “relational provisions”: guidance, reliable alliance, reassurance of worth, social integration, attachment, and opportunity to provide nurturance.

For the CMHEI project, the Social Provisions Scale was shortened to 8 items due to time constraints in the overall interview protocol (Appendix C). Thus, only the total perceived social support score is used. Scale items were selected based on their face validity, and on their relatively high correlation with other interview items (Cutrona and Russell, 1987).

Respondents were asked the degree to which they agree with statements such as “I have family and friends, who help me feel safe, secure and happy” and “I lack a feeling of intimacy with another person”. Response options fall on a four point scale: (a) “Strongly Agree”; (b) “Agree”; (c) “Disagree”, and (e) “Strongly Disagree”.

Numerous studies have examined the psychometric properties of the original 24-item Social Provisions Scale among various populations. Internal reliability for the total perceived social support score was measured in a study of elderly adults, and found to be .92 (Cutrona & Russell, 1987). There is evidence of its validity in use with adolescent mothers (Cutrona, 1989), elderly people (Cutrona et al., 1986), and hospital nurses (Constable & Russell; Cutrona & Russell, 1987). Among college students, the six social provision subscale scores accounted for 66% of the variance in scores on the UCLA Loneliness Scale. And in an assessment of elderly people, the Social Provisions Scale showed significant concurrent negative correlations with depression and positive correlations with life satisfaction (Cutrona, Russell & Rose, 1986). The scale has discriminant validity when it is compared against measures of depression (and other

mood indicators), personality (introversion-extraversion & neuroticism) measures, and social desirability (Cutrona & Russell, 1987; Cutrona & Russell, 1990).

Close Confidantes Measure

Participants were asked to provide an estimate of how many people in their network they consider to be “close confidantes”. This was assessed by asking the question; “How many people do you know whom you feel at ease with, and can talk to about personal matters?” Participants were then asked to break this number down into numbers of family members, spiritual leaders, friends, acquaintances, and professionals. This measure was created for the purposes of this study. Internal reliability for this measure is presented in the results section.

Satisfaction with Family Relations

The family relations subscale (Appendix E) from Lehman’s Quality of Life Interview (QOLI; Lehman, 1988) was used to measure participants’ satisfaction with their relationships with family members. This 2-item subscale uses the fixed interval (1-7) “Delighted-Terrible” rating scale described previously. A score of 1 (“Terrible”) is the lowest rating, 4 (“Mixed”) indicates “about equally satisfied and dissatisfied”, and 7 (“Delighted”) is the highest rating. The internal consistency of the family relations subscale is also very high, with a demonstrated coefficient alpha value of .89 (Lehman, 1988).

The Quality of Life Interview (QOLI; Lehman, 1988) was originally developed to assess the life quality of people with severe and persistent mental illness, and it has been used extensively in a variety of settings over the past 15 years (Lehman, 1988; Lehman, Rachuba, & Postrado, 1995; Lehman, Slaughter, & Myers, 1992). The interview was designed to assess individuals’ life quality in eight separate domains of living. These domains are measured by subscales which include living situation, daily activities, family relations, social relations, work and school, finances, personal safety, and health. There is

a great deal of research evidence showing the QOLI to have good psychometric properties overall (Lehman, Possidente & Hawker, 1986; Lehman, Slaughter & Myers, 1992). A 1994 pilot study of 50 respondents with severe and persistent mental illness, yielded acceptable to highly acceptable Cronbach's alphas, ranging from 0.56 to 0.87 (Lehman, Kernan, & Postrado, 1996). Construct and predictive validity of the QOLI has been demonstrated using confirmatory factor analyses (Lehman, 1983), and discriminant validity of the interview has been assessed by examining correlations of the subjective and objective subscales, based on the assumption that the subscales measure divergent constructs (Lehman, 1988). Internal reliability of the satisfaction with family scale is high; the alpha co-efficient value is 0.89 (Lehman, 1988).

Satisfaction with Social Relations

The subjective social relations subscale (Appendix D) from Lehman's QOLI was used to measure participants' satisfaction with their social relations (not including family members). It uses a fixed interval (1-7) "Delighted-Terrible" rating scale. A score of 1 ("Terrible") is the lowest rating, 4 ("Mixed") indicates "about equally satisfied and dissatisfied", and 7 ("Delighted"), is the highest rating. Note that it was assumed from the outset that some participants would include their relationships with service providers when asked how they feel about their social relations, and this did occur. This was due to the wording of the introduction to this scale, which asks participants how they feel about "other people in your life, that is, people who are not in your family". If clients asked whether this included professionals (usually their primary worker/case manager), interviewers were instructed to respond in the affirmative. The internal consistency of this subscale is also very high (with a demonstrated coefficient alpha value of .85 (Lehman, 1988).

Satisfaction with Life Scale

The Satisfaction with Life Scale (SWLS, Diener et al., 1985; Pavot & Diener, 1993) was used to assess overall life satisfaction of participants in the study (Appendix F). This popular and well-researched scale stems from research which suggests that “life satisfaction” is one of three components of subjective well-being; the other two being positive affect and negative affect (Diener et al., 1985). The SWLS was initially developed as a brief, easy to administer quality of life measure which would allow individuals to assess their overall satisfaction with life, rather than simply evaluating a sum score based on satisfaction with previously assessed life domains such as personal safety, health, or finances (as is the case with Lehman’s quality of life measure). In this way, clients can compare their current life situation with their own “felt” or “experienced” internal standard of an “ideal” life, and they may choose whatever weights or importance levels they wish to ascribe to their assessment of personal life domains. Thus, the Satisfaction with Life Scale is based on the idea that “happiness requires total satisfaction, in other words, satisfaction with life as a whole” (Tatarkiewicz, p. 8, from Diener et al., 1985). It is a more holistic survey of life satisfaction than Lehman’s domain-specific measure.

The Satisfaction with Life Scale consists of five statements pertaining to life satisfaction, which are rated on a seven point scale (with 1 being “Strongly Disagree” and 7; “Strongly Agree”). Total scores give an indication of the respondent’s overall life satisfaction and can range from 5 to 35, with a score of 20 representing a neutral level of life satisfaction. Scores between 21 and 25 represent slight satisfaction and scores above 25 suggest a high level of life satisfaction. Scores between 15 and 19 are seen as representing slight dissatisfaction with life, while scores between 5 and 9 represent extreme dissatisfaction. Normative data are available for a number of different populations, including persons with physical disabilities, people with alcohol and drug

abuse problems, and psychotherapy clients (Pavot & Diener, 1993).

The scale's psychometric properties have been shown to be good. It correlates positively with other subjective well-being and life satisfaction measures (Diener et al, 1995) and it correlates negatively with clinical measures of distress (Pavot & Diener, 1993). For example, in a study of 176 undergraduates, the scale demonstrated a correlation of .57 with summed ratings of satisfactions with various life domains. As well, the scale correlates adequately with interviewer estimates of participants' life satisfaction (Diener et al., 1985). Finally, the SWLS appears to have strong internal reliability across a variety of sample populations, with Cronbach alpha coefficients ranging from .79 to .89 and good test-retest reliability for intervals of up to four years (for a review of SWLS research, see Pavot & Diener, 1993).

Multnomah Community Ability Scale

The Multnomah Community Ability Scale (MCAS; Barker & Barron, 1997) was used to measure community adaptation. The MCAS is a 17-item instrument completed by service providers that measures the level of functioning of individuals with severe mental illness who are living in the community (see Appendix G). Items include questions such as "How well does the client perform independently in day-to-day living?", with possible responses ranging on a five-point scale ranging from 1 ("Almost Never Performs Independently") to 5 ("Almost Always Performs Independently"). The MCAS provides a measure of the severity of an individual's mental health disability, as well as assessing their ability to live independently. In addition to a total score, the MCAS generates four subscales: (a) Interference with Functioning, (b) Adjustment to Living, (c) Social Competence, and (d) Behavioural Problems. For the purposes of this study, only the total score was used as a measure of overall community adaptation.

The MCAS is the product of a "grassroots" mental health project, developed at the community level by a group of clinicians, case managers, and other psychosocial

rehabilitation staff in Multnomah County, Oregon. They had been frustrated by their inability to find a scale which would assess their clients' functioning in the community, so they set out to develop their own. As a result, the scale reflects the perspectives of those who work directly with mental health consumers (such as social/disability support workers) and it is also a reflection of program management perspectives. Some of the cited appropriate uses of the scale include (a) describing an agency's case mix of clients, (b) measuring client progress, and (c) assigning clients to different levels of service (Barker et al., 1994). The MCAS was developed for use with people with severe and persistent mental illness, and it is sensitive to the wide range of differences among individuals in this population (Bowling, 1991; Vaccaro et al., 1992). It was designed to be completed by case managers, but can be used reliably by other raters (such as research assistants), after undergoing a standardized, one-half day training seminar.

The psychometric properties of the scale are good. Test-retest and inter-rater reliability were assessed in two studies of 43 clients at two separate community mental health agencies. For the total score, the inter-rater reliability coefficient was .85 and the test-retest reliability coefficient was 0.83. Validity of the scale was tested using Global Assessment of Functioning (GAF) ratings of 33 of the participants who had been involved in reliability testing. A correlation of 0.78 was found between the global ratings and total MCAS score (Barker, Baron, McFarland & Bigelow, 2000). Additionally, all scale items (except social interest and intellectual functioning) correlate strongly with criterion variables such as hospitalization history, providing further confirmation of the scale's validity (Barker et al., 1994). The scale has been shown to have substantial predictive validity, with individuals with higher scores (reflecting higher adaptive functioning) being less likely to use hospital services during a two-year follow-up period. Normative data on the instrument as applied to mental health consumers is also available (Barker et al., 1993, 1994, 2000).

The CMHEI working group conducted its own inter-rater reliability study, following a series of standardized training seminars. Item-level intra-class coefficient (ICC) values ranged from poor to very good, with a value of 0.18 for the Social Network item compared to 0.98 for the Thought Processes item. One other item had poor reliability; the Meaningful Activities item with an ICC of 0.27. The ICC for the MCAS total score was 0.97, which suggests that overall the measure is reliable.

Procedure

The design of the Ottawa CMHEI project involved a clinical trial with participants followed for a period of two years. As noted above (see; context for the current study), the present research study used data collected at baseline only. Potential participants were initially referred to the CMHEI project by housing outreach workers for long-term support, after providing informed consent with respect to participating in the study.

The informed consent procedure (Appendix H) followed ethical guidelines expected of researchers at the University of Ottawa. CMHA housing outreach clients who met the project's inclusion criteria (see aforementioned housing and psychiatric determinants) were first contacted by their CMHA support workers. They were asked if they would be interested in meeting with a research assistant from the University of Ottawa, to learn about a study of community support services that was being conducted. If the individual expressed interest in the study, an appointment was arranged; to be attended by the client, the client's worker and the research assistant. At the beginning of the informed consent meeting, the worker and the interviewer together conducted a brief informal assessment of their client's mental status. Anyone who showed signs of confusion because of personal difficulties or substance use was judged unable to provide informed consent. They were asked if they would like to meet the research assistant in the future, and follow-up occurred with those continuing to express interest in the study.

If the client was assessed as being capable of providing informed consent, the research assistant explained the details of the study. Prospective participants were informed that they would be randomly assigned to either a treatment (i.e., receiving intensive community support) or a control group (i.e., accessing all services except for intensive community support), and that they had an equal chance of being placed in either group. They were also told that they would be interviewed four times over a 24 month period at intervals of 9 months (note that the interval between the third and final interview was six months). They were also told that each interview would take approximately two hours. They were assured that any information they provided during the interviews would be kept confidential, and would not be disclosed to their worker or anyone else at CMHA. They were also assured that if they chose not to participate, that this would have no impact on the services they were currently receiving. Finally, prospective participants were told that they would be paid twenty dollars for each of the four interviews. If they elected to participate, they were then asked to sign a consent form (Appendix H).

As part of the experimental design (although not pertinent to the present study), participants were matched by age, gender, and level of functioning, and then were randomly assigned to either receive intensive case management (i.e., the treatment group), or to standard community care (i.e., the control group). People in the latter group generally continued with housing outreach for a period of time, and were then referred to whichever community services best met their needs. All participants were interviewed at study entry, nine month follow-up, 18 month follow-up, and at 24 month follow-up.

Graduate students from the Ph.D. program in clinical psychology at the University of Ottawa were hired to conduct the interviews. Interviewers attended a comprehensive, day-long training session and subsequent group supervision meetings were held every three months. The initial training seminar included instruction in the administration of

the study's various measures, according to the administration protocol of each.

The baseline interview took between 1.5 and 2.5 hours to administer, and averaged 1.8 hours. After demographic and housing information was collected, the Social Network Measure was administered. This was followed by the Satisfaction with Life Scale, and then Lehman's objective and subjective quality of life subscales. These included assessments of finances, daily activities, personal safety, and health, in addition to the two subscales (satisfaction with family and social relations) used in the present thesis study. The Social Provisions Scale was next. In addition, qualitative data were gathered throughout the interview, interspersed in ways that complemented the flow of the interview and the content of the objective measures.

Following the baseline interview, participants were debriefed and asked to provide the names and phone numbers of individuals who would be able to provide information as to their whereabouts, should difficulty be encountered in locating them for subsequent interviews. The Multnomah Community Ability Scale was completed during the PSR Toolkit interview, usually by a worker at CMHA who was familiar with the client and could provide an accurate rating of their adaptive functioning.

Results

The findings of the thesis study are now presented. For the quantitative analyses, the data preparation procedure is detailed, and psychometric information about the study's measures is presented. As well, demographic and residential characteristics of the study's participants are outlined, in order to adequately describe the sample. Following the descriptive findings, the results of the primary and the exploratory analyses are presented. An overview of the qualitative data preparation procedure is followed by a step-by-step overview of the coding and analysis of the qualitative responses. The results of the qualitative analyses are then presented.

Data Preparation

The data were first reviewed to determine the accuracy of data gathering and data entry procedures, and to assess for any missing items. As a preliminary quality control procedure, a portion of the database was compared to collected hard-copy data, to ensure that data entry was accurate. A random sample of 32% of the cases in the computerized data file was compared to the corresponding raw interview data, and no inputting errors were found.

It should be noted that due to formatting incompatibilities related to scanning procedures, data from the Social Network Measure was maintained in a separate database. During the quality control phase, four errors (in four separate cases out of $n = 147$) were identified and corrected in the social network data. As a result, a more thorough data checking protocol was undertaken; social network data from all 147 cases were reviewed, and data from 13 cases were re-entered. Following this, a second check against 33% of the hard copy data revealed no errors in the social network database. The two databases were eventually merged after being checked.

All variables were then examined using SPSS to look for any out of range scores, as well as missing values. No out of range scores were identified. The demographic data were largely complete, although there were some instances where information was unavailable. Sample sizes for the demographic variables ranged from 139 (eight participants did not provide information

about their monthly income) to 147. Data from the CMHEI baseline interviews were mostly complete, with the exception of “age at first hospitalization”. Twenty-four participants responded “I don’t know” to this question and 15 of the participants had never been hospitalized. Data from the toolkit interviews were less complete. Recall that during these interviews, workers queried about participants’ current and past living situations. For example, information about the main living situation over the past nine months was unavailable for 25 participants. And for 28 participants, the number of nights homeless in the past nine months was not known.

Data generated by the measures varied in terms of its completeness. There were several instances where one or more items were not answered in multi-item measures. When this occurred, a procedure was followed whereby the available scores were added; the sum was divided by the number of valid cases; and this value was then multiplied by the total number of items in the measure. However, if more than 25% of data were missing, these cases were deleted from the analysis. Following this procedure, sample sizes for the measures ranged from 131 to 147.

The data were then examined for the presence of univariate outliers and four cases with values in excess of ± 3.29 standard deviations were identified and recoded (Tabachnick & Fidell, 1996). One was an MCAS score more than 3.29 standard deviations below the mean. Since this case was on the borderline of being an outlier (and given our desire to preserve data whenever possible) this score was recoded from a value of 26 to a score of 27 (exactly 3.29 standard deviations below the mean). As well, three outliers in the social network measure (two for total network size and one for number of friends) were identified and re-coded to a value within 3.29 standard deviations of the mean.

An inspection of univariate skewness and kurtosis values found evidence of slight skewness in two of the social network variables (total network size and number of friends in the network), however these were not transformed due to the objective nature of the scales which provided these variables (i.e., actual counts of individuals). The distributions of the study’s

measures were then examined and histograms, skewness and kurtosis were used diagnostically to ensure that these variables met the assumptions of normality, linearity and homogeneity of variance. All but one of the scales were found to meet these assumptions. The distribution of values for the Life Satisfaction scale was found to be skewed (skewness value of 0.73, standard error of skew = 0.20). This yielded a z score of 3.61, suggesting a slight positive skew. As a result, a square root transformation was performed which yielded a z score of 1.52, thus successfully removing the skew. The transformed data was used in a parallel analysis to determine the possible impact of its skewness. Since the results were the same for the transformed and the original variable, only the results using the original variable are presented.

Scale Properties

Table 1 outlines descriptive information on all of the measures used in the study. This includes means, standard deviations, and internal reliability. Cronbach alpha values for the measures ranged from .65 to .86, an acceptable level of internal reliability. Individual item analyses of the two with the lowest reliability scores; the BPRS (alpha = .65) and the Social Provisions Scale (alpha = .68), determined that neither scale contained items which were significantly decreasing the alpha level overall. Intra-class correlations for the BPRS were calculated using data from training sessions of interviewers. Intra-class correlations for the MCAS were calculated using data from training sessions with service providers, based on ratings of cases presented through videotaped interviews. Training sessions used cases presented on videotape. Intra-class correlation coefficients for these measures were very good (BPRS $r = .94$, MCAS $r = .97$).

Table 1
Descriptive Information on Measurement Scales Used in the Analyses

Scale	<u>N</u>	Number of items	Potential range of scores	Obtained range of scores	<u>M</u>	<u>SD</u>	Cronbach Alpha
Brief Psychiatric Rating Scale	147	18	18-126	19-66	40.04	9.05	.65
Social Provisions Scale	143	8	8-32	9-31	21.38	4.13	.68
Satisfaction with Family Relations ^a	131	2	1-7	1-7	3.53	1.77	.86
Satisfaction with Social Relations ^a	139	3	1-7	1-7	4.29	1.36	.80
Life Satisfaction	144	5	5-35	5-33	14.06	7.50	.84
Multnomah Community Adaptation Scale (MCAS)	146	17	17-85	26-69	50.87	7.95	.72

^a where client scores are the average of all scale items

Description of the Sample

Table 2 outlines the demographic characteristics of the study's 147 participants. For comparison purposes, available population data on Ottawa CMHA case management clients (excluding those participating in the present study) are also presented in Table 2. The study sample was statistically compared to clients receiving services from CMHA's case management program. Chi-Square analyses between the current sample and the general case management population found some differences in terms of age, education level, employment status, and income.

The average age of this study's participants was 38.1 years ($SD = 11.43$, Range = 16.5 - 66.1 years). The sample was divided almost equally along gender lines (male; 51.7%, female; 48.3%). Most participants were single and had never been married (65.5%), and the rest were divorced (19%), separated (8.3%) or widowed (2.8%). Only one participant was married at the time of the baseline interview, and five were cohabiting with a significant other.

Thirteen percent of participants did not attend school beyond grade 8. Sixty-one percent of participants had completed some high school, and 15 percent had obtained some post-secondary education. An additional five participants (4%) had graduated from college or university. Twenty-one participants (14%) had been enrolled as a student in the past nine months, and 8% were attending school at the time of the baseline interview. Most participants were unemployed (92%), although some were working on a part-time casual basis. Social assistance was the primary source of income, with 29% of participants receiving Ontario Works (general welfare) and 65% of participants receiving some form of monthly disability payments, usually through the Ontario Disability Support Program (54%). The average monthly income for the sample was \$753.77 per month (the modal monthly income was \$930.00). Incomes ranged from \$112.00 per month to \$2750.00 per month.

Table 2
Description of Participant Characteristics: Demographic Information

Participant Characteristic	Current Sample (n)	CMHA Clients (N)	Test Statistic
Gender			
Female	48.3% (71)	46.7% (115)	$\chi^2(1) = 0.09$ n.s.
Male	51.7% (76)	53.3% (131)	
Age in Years			
Mean	38.1 years		$\chi^2(4) = 26.04$ **
Range 16-25	18.4% (27)	28.2% (62)	
26-35	18.4% (27)	33.6% (74)	
36-45	36.1% (53)	26.8% (59)	
46-55	23.1% (34)	10.0% (22)	
56-65+	4.0% (6)	1.3% (3)	
Highest Education Level Achieved			
Mean	11.3 years		$\chi^2(4) = 21.92$ **
Range			
some elementary school (gr. K-8)	13.8% (20)	15.6% (31)	
some high school (but did not graduate)	61.4% (89)	44.2% (88)	
high school graduate	6.1% (9)	23.6% (47)	
some university or college (but did not graduate)	15.2% (22)	11.6% (23)	
university or college graduate	3.5% (5)	5.0% (10)	
Current/Recent Educational Status			
Full-time student in past 9 months	8.2% (12)	a	a
Part-time student in past 9 months	6.1% (9)		
currently attending school	7.5% (11)		
Employment Status			
Unemployed	91.9% (135)	97.8% (221)	$\chi^2(1) = 14.18$ **
Employed: full-time ^b	2.0% (3)	2.2% (5)	
Employed: part-time regular ^b	6.1% (9)	0% (0)	

^a Data currently unavailable for the CMHA population

^b Categories collapsed to meet requirements of Chi-Square

** $p < .01$

Table 2, continued
Description of Participant Characteristics: Demographic Information

Participant Characteristic	Current Sample (n)	CMHA Clients (N)	Test Statistic
Primary Income Source			
Ontario Works	28.6% (40)	23.6% (67)	$\chi^2(4) = 8.36$ n.s.
Ontario Disability Support Program	54.3% (76)	61.3% (174)	
Disability Income (other)	10.7% (15)	9.2% (26)	
Gross earnings	2.1% (3)	4.9% (14)	
Pension/Insurance ^c	0.7% (1)	0.0% (0)	
Contributions from family ^c	0.0% (0)	1.1% (3)	
Other Income (not earnings or benefits) ^c	3.6% (5)	0.0% (0)	
Missing/unknown	n=7		
Monthly Income			
Mean	\$753.77	^a	^a
Mode	\$930.00		
Range	\$112.00 - \$2750.00		
missing	n = 8		
Marital Status			
Single, Never Married	65.5% (95)	65.6% (164)	$\chi^2(4) = 0.48$ n.s.
Married ^c	0.7% (1)	2.0% (5)	
Cohabiting with Sig. Other ^c	3.4% (5)	.6% (9)	
Separated	8.3% (12)	8.0% (20)	
Divorced	19.3% (28)	18.0% (45)	
Widowed	2.8% (4)	2.8% (7)	
Missing	n=2		
Psychiatric Diagnosis			
Mood Disorder	51.7% (76)	28.3% (72)	$\chi^2(8) = 80.30$ **
Anxiety Disorder	17.7% (26)	5.5% (14)	
Schizophrenic Disorder	47.6% (70)	52.4% (133)	
Personality Disorder	9.5% (14)	7.1% (18)	
Developmental Handicap ^c	1.4% (2)	0.4% (1)	
Substance-Related Disorder	27.9% (41)	1.2% (3)	
Disorder due to Mental Condition ^c	0.0% (0)	0.4% (1)	
Delerium, Dementia, Amnestic & other cognitive disorders ^c	2.0% (3)	2.4% (6)	
Specific Disorder of Childhood/ Adolescence	5.4% (8)	0.4% (1)	
Other	12.9% (19)	0.4% (1)	
Unknown	4.8% (7)	1.7% (4)	

^a Data currently unavailable for the CMHA population

^b Categories collapsed to meet requirements of Chi-Square

** $p < .01$

Table 2, continued
Description of Participant Characteristics: Demographic Information

Participant Characteristic	Current Sample (n)	CMHA Clients (N)	Test Statistic
Most Common Diagnostic Combinations			
Schizophrenia alone	25.2% (37)	a	a
Schizophrenia + Substance Use	4.8% (7)		
Mood Disorder alone	14.3% (21)		
Mood Disorder + Substance Use	10.2% (15)		
Mood Disorder + Schizophrenia	5.4% (8)		
Mood Disorder + Schizophrenia + S.U.	2.7% (4)		
Mood Disorder + Anxiety + other	2.7% (4)		
Mood Disorder + Anxiety	2.0% (3)		
Anxiety Disorder Alone	2.0% (3)		
Personality Disorder Alone	2.0% (3)		
Age at First Psychiatric Hospitalization			
Mean	24.1 yrs	27.1 yrs	
Minimum	4 yrs	14 yrs	
Maximum	66 yrs	79 yrs	
Range			
4-15	23.1% (25)	2.5% (1)	$\chi^2(4) = 10.45 *$
16-25	38.9% (42)	43.6% (17)	
26-35	19.4% (21)	33.3% (13)	
36-45	14.8% (16)	12.8% (5)	
45+	3.7% (4)	7.7% (3)	
“don’t know”	n = 24	n = 10	
“Never hospitalized”	n = 15	n = 10	

^a Data currently unavailable for the CMHA population

* $p < .05$

The most common diagnoses were mood disorders (51.7%), schizophrenia (47.6%), substance-related disorders (27.9%) and anxiety disorders (17.7%). As well, ten percent of participants reported having been diagnosed with a personality disorder, although usually this was a secondary diagnosis. Thirty-two percent of participants reported having been given more than one diagnosis during their lifetime (as a result, the percentages add up to more than 100). For an overview of the most common diagnostic combinations, please refer to Table 2. The majority of participants (90%) reported having been hospitalized at least once in their lifetime for mental-illness. More than half (62%) of the sample reported experiencing their first psychiatric hospitalization before the age of 25 and a further 19% were first hospitalized between the ages of 26 and 35. Twenty percent could not remember the age at which their first hospitalization had occurred.

Living Situation

Table 3 outlines participants' current living situations and their homelessness histories in the nine months pre-baseline. Since this information was gathered by workers during the baseline interview, there are a number of participants whose homelessness history ($n = 28$) was not available. At the time of the baseline interview, 28% of participants were living in a rooming house or a boarding house; 12% were living in a shelter and none were living primarily on the streets. It is important to note that the 52% of participants who listed a private house or apartment as their main residence, may still have been experiencing significant housing difficulties, as they may have lived in *several* different houses and/or apartments during the nine months pre-baseline due to evictions, staying with friends on a rotating basis ("couch-surfing") and other factors. In light of this, information about the nights spent homeless and number of moves may provide a more realistic picture of participants' housing stability in the pre-baseline months.

Table 3
 Description of Participant Characteristics: Living Situation

Participant Characteristic	Current Sample (n)	CMHA Clients (N)	Test Statistic
Number of nights homeless in nine months pre-baseline (<i>worker-client report</i>)			
Mean	43.0	a	a
Maximum	270		
Range			
0	53.8% (64)	a	a
5-50	16.8% (20)		
50-100	13.4% (16)		
100-150	7.6% (9)		
150+	8.4% (10)		
missing/unknown	n = 28		
Housing Stability: number of moves in nine months pre-baseline (<i>worker-client report</i>)			
Mean	2.25		
Maximum	10		
Range:			
0 moves	20% (29)	a	a
1 move	20.7% (30)		
2 moves	22.8% (33)		
3 moves	18.6% (27)		
4 moves	6.9% (10)		
5+ moves	11.0% (16)		
missing	n = 2		
Current Living Situation (<i>worker report</i>)			
Private House or Apartment	52.4% (77)	a	a
Hostel/Shelter	12.2% (18)		
Boarding House	4.8% (7)		
Rooming House	23.1% (34)		
Group Home/Co-Op	2.7% (4)		
Specialty Hospital	0.7% (1)		
Psychiatric Hospital	1.4% (2)		
General Hospital	1.4% (2)		
On the street (incl. "no current address")	0.0% (0)		
Other	1.4% (2)		
Total			
missing/unknown	n = 0		

^a Data currently unavailable for the CMHA population

^b Categories collapsed to meet requirements of Chi-Square

** $p < .01$

Of the 119 participants who provided information about their experiences with homelessness in the nine month period prior to entry in the study, 55 (46.2%) reported that they had spent five or more nights without housing (Table 3). Twenty participants (16.8%) had spent between five and 50 nights homeless, sixteen (13.4%) had spent between 50 and 100 nights homeless, nine (7.6%) had been homeless for between 100 and 150 nights, and a full 8.4% of the sample (10 participants) reported having been homeless for more than 150 nights (a period of about 5 months) in the nine months prior to the baseline interview. In addition, 116 participants (78.9%) had moved at least once during the nine month pre-baseline period. The average number of moves was 2.6 (Ranging from 0 to 10 moves). Tellingly, 36.1% of participants had moved three or more times, reflecting a high level of housing instability. By the time the baseline interviews took place (partially as a result of their participation in the CMHA housing program), many of the study's participants had been moved from shelters or off the streets, to more stable housing, and this is reflected in their current living situation (Table 3).

There are some differences between our participants and CMHA case management clients. Participants in our study are older, there are a smaller proportion of high school graduates, there are a higher percentage who are unemployed; a higher percentage with mood disorders and substance use disorders. Finally, our participants tended to be first hospitalized at a younger age. Thus, to some extent these findings must be applied with caution to the general population of clients receiving case management services. For the most part, these differences are relatively minor, with the exception of substance use issues which are far more common among our study participants (28% vs. 1%). It is possible that this particular difference is due to the fact that our study used measures designed specifically to assess drug and alcohol problems, whereas the comparison group of CMHA clients were not assessed specifically for substance use issues.

Social Network Characteristics

Descriptive statistics have provided us with a detailed picture of participants' social networks and have allowed us to address some of the questions outlined in the first objective. For example, questions about the size of participants' social networks and proportions of the various component subgroups of the networks have been addressed using descriptive data. Using this information, we have determined whether or not the average size of the sample's social network is similar to that seen in previous studies, or to networks of the general population. We also determine if our sample contains proportionally more formal contacts (and/or more family members) than friends, and if there is, in fact, a subset of subjects who report having very few or no friends and/or family contacts at all (i.e., "profoundly isolated" individuals).

Table 4 outlines participants' social network characteristics, as defined by Nelson et al.'s (1992) Social Network Measure. This measure asks about the number of friends, family, and professionals participants have had contact with over the past six months. For comparison purposes, network size data from the "social support" portion of the CMHEI baseline interview (Cutrona & Russell, 1987) are also provided in Table 4. This data consists of participants' responses to the following question: "How many people do you know with whom you feel at ease and can talk to about personal matters?" (the total number of "close confidantes"). As well, participants were asked how many of these close confidantes are; friends, family members, and professionals.

Using Nelson et al.'s social network measure, the average number of friends cited by participants was 1.56. The average number of family members was 2.40, and participants reported having an average of 2.62 professionals in their networks. Overall, the average number of network members was 6.57. A full 36% percent of the sample ($n = 52$) reported having *no friends* in their social network, and 51% of the sample ($n = 73$) reported having between one and three friends. Only two participants reported having more than six friends. Twenty percent of the sample ($n = 29$) reported having no family members in their social network, while 52% ($n =$

75) listed between one and three family members. In contrast, only 6% ($n = 8$) said that they had no professionals to their social network, and 70% of the sample reported having between one and three professionals in their social network.

Relationship between Number of “Close Confidantes” and Network Size

The Nelson et al. measure asks participants to provide the initials of people that they consider important, and have had contact with in the past six months (Appendix B). The Cutrona and Russell measure, on the other hand, asks participants how many people they know with whom they feel at ease, and can talk to about personal matters (how many “close confidantes” they have) (Appendix C). Both measures are attempts at counting the numbers of individuals that a participant has in their social network. As shown in Table 4, the results of these measures are related, but not identical.

According to the Nelson et al. measure, participants have an average of 6.6 members in their social network. The mean number of professionals listed for the Nelson et al. measure is 2.6, whereas participants list an average number of 1.0 “close and confiding” relationships with professionals. The correlation between these variables is .24, $p < .01$. The average number of friends listed is 1.6, the average number of close and confiding friendships cited by participants is 1.3. The correlation between these two variables is .28, $p < .01$. When asked about family members who are important to them and with whom they have had some sort of contact in the past six months, participants listed an average of 2.4. This is twice as many as the average number of family relationships participants described as close and confiding ($M = 1.2$). The correlation between these two variables is not significant, $r = .09$, n.s.

Table 4
Descriptive Statistics: Social Network Measures

Social Network Characteristics	Current Sample (n) Social Network Measure ^a	Current Sample (n) Social Support Measure ^b	Correlation (Pears. Bivariate)
<i>Number of Professionals</i>			
Mean	2.62 (144)	1.03 (147)	.24**
Mode	2	0	
Median	2.00	1.00	
Stand. Dev.	1.69	1.19	
Range	0 professionals	46.3 (68)	
	1-3	51.0% (75)	
	4-6	2.7% (4)	
	7+	0% (0)	
<i>Number of Family Members</i>			
Mean	2.40 (144)	1.20 (147)	.09
Mode	1	0	
Median	2.00	0.00	
Stand. Dev.	2.06	3.11	
Range	0 family members	55.8% (82)	
	1-3	36.7% (54)	
	4-6	4.7% (7)	
	7+	2.8% (4)	
<i>Number of Friends</i>			
Mean	1.56 (144)	1.31 (147)	.28**
Mode	0	0	
Median	1.00	0.00	
Stand. Dev.	1.70	2.63	
Range	0 friends	55.1 (81)	
	1-3	35.4 (52)	
	4-6	5.5% (8)	
	7+	3.5% (6)	
<i>Total Network Members</i>			
Mean	6.57 (144)	3.66 (147)	.19*
Mode	3	2	
Median	6.00	3.00	
Stand. Dev.	3.62	3.87	
Range	0 network members	15.0% (22)	
	1	14.3% (21)	
	2-4	46.2% (68)	
	5-7	12.3% (18)	
	8-10	5.4% (8)	
	11+	6.8% (10)	

^a Nelson et al. Social Network Measure: Number of network members ppt. had contact with in past 6 months

^b Number of network members described as 'close confidantes'

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

Quantitative Analyses

A bivariate correlation matrix of the variables is presented in Table 5. Tables 6 – 12 present the results of the separate multiple regressions conducted to test the hypotheses. Included in these tables are the unstandardized regression coefficients (B) and intercept, the standardized regression coefficients (β), the semipartial correlations (sr^2 ; incremental) and R, R^2 , and adjusted R^2 after entry of the co-variates (step 1) and the independent variables (subsequent step(s)). Each multiple regression was preceded by screening for multivariate outliers; two multivariate outliers were ascertained for two of the regressions. These were both situations where the number of close confidantes cited (18 close confidantes in both cases) were much higher than the total number of members in the social network as reported earlier in the interview (4 and 5 network members respectively). Clearly, this is a situation which does not make sense. Following a check to verify the accuracy of the social network data entry for these particular cases, these cases were removed for the analyses. A presentation of the results according to the tested hypotheses and exploratory research questions are presented next.

Research Question 1

After controlling for gender and symptomatology, what is the relationship between total network size and life satisfaction?

Hypothesis 1. It was anticipated that the total number of individuals in the social network of participants would be a significant predictor of life satisfaction. As an initial analysis, Pearson bivariate correlations (2-tailed) were performed (Table 5). A significant negative correlation between symptomatology (as reflected by higher BPRS scores) and life satisfaction was noted; which means that participants with more severe symptoms were less satisfied with their lives; $r(141) = -.27, p < .01$. Gender and life satisfaction were correlated, with women reporting lower levels of satisfaction with their lives; $r(141) = -.16, p < .05$. Gender and network size were also correlated; with women reporting larger social networks; $r(141) = .20, p < .01$.

Table 5
Intercorrelations Between All Variables in the Model

Variable (n)	2	3	4	5	6	7	8	9	10	11
1. Gender ^a (147)	.05	.19*	.15	.08	.22**	-.07	.11	-.18**	-.15*	.21*
2. Symptomatology (147)	---	-.01	-.05	.07	-.01	-.22**	-.11	-.22*	-.27**	-.33**
3. Number of Friends (144)	---	---	.13	.14	.63**	.21*	.19*	.12	.15	.01
4. Number of Fam. Members (144)	---	---	---	.15	.71**	.22	.01	.06	-.02	.06
5. Number of Professionals (144)	---	---	---	---	.62**	-.02	-.12	-.14	-.04	.04
6. Total Network Size (144)	---	---	---	---	---	.21*	.04	-.09	.10	.05
7. Perceived Social Support (143)	---	---	---	---	---	---	.47**	.51**	.39**	.05
8. Satisfaction With Friends (139)	---	---	---	---	---	---	---	.34**	.29**	.07
9. Satisfaction With Family (131)	---	---	---	---	---	---	---	---	.55**	.10
10. Life Satisfaction (144)	---	---	---	---	---	---	---	---	---	.04
11. Community Adaptation (146)	---	---	---	---	---	---	---	---	---	---

^a where male = 1, female = 2

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

Table 6
 Hierarchical Regression of Life Satisfaction on Total Network Size

Variables	Life Satisfaction	Gender	BPRS score	Tot. Net. Size	B	β	sr ² (incr.)
Step 1: Gender ^a	-.16*				-1.78	-0.12	
BPRS Score ^a	-.27**	.09			-0.22	-0.26	.09
Step 2: Tot. Network Size	-.10	.20**	.02		-0.15	-0.07	.01
				Intercept	26.53		
Means	14.12	—	39.64	6.67			
Std. Dev.	7.53	—	8.97	3.65			
Sample size (n)	141	141		141			
							R ² = .10
							Adjusted R ² = .08
							R = .31

Step 1: F change (2, 138) = 7.05, p = .00

Step 2: F change (1, 137) = 0.78, p = .38

^a with gender and level of functioning (controls) entered as a block

* p < .05 (2-tailed)

** p < .01 (2-tailed)

A hierarchical regression was conducted using SPSS, to examine the relationship between total network size and life satisfaction. In order to control for the potential influence of gender and symptomatology, these were entered into the equation first in the form of co-variables (Step 1). As seen in Table 6, R^2 was significantly different from zero at the end of Step 1, F change (2, 138) = 7.05, $p < .01$. However, the addition of total network size to the equation in Step 2 did not reliably improve R^2 , F change (1, 137) = 0.78, $p = 0.38$. These results indicate that, after controlling for gender and symptomatology, total network size is not a significant predictor of overall life satisfaction. Thus, Hypothesis 1 was not confirmed.

Research Question 2

After controlling for gender and symptomatology, what is the relationship between the size of different components of the social networks of people with severe mental illness, and life satisfaction?

To examine the relationship between the size of the four network components and life satisfaction, bivariate correlations and a hierarchical regression analysis were conducted, with life satisfaction as the predicted variable (Table 7). Once again, Pearson correlations revealed significant correlations between symptomatology and life satisfaction; participants with higher symptoms ratings were less satisfied with their lives; $r(141) = -.27$, $p < .01$. Gender and number of friends were correlated, with women reporting more friends; $r(141) = .18$, $p < .05$. The number of friends in the social network was also related to the number of “close confidantes”; $r(141) = .21$, $p < .01$.

A hierarchical regression was conducted using SPSS, to examine the relationship between the size of different components of social networks, and life satisfaction. To control for the potential influence of gender and symptomatology, these were again entered into the equation first in the form of co-variables (Step1). As with the first analysis, R^2 was significantly different from zero at the end of Step 1, F change (2, 138) = 7.05, $p < .01$. The size of the different

Table 7
 Hierarchical Regression of Life Satisfaction on Network Component Variables

Variables	Life Satis.	Gend.	BPRS Score	Close Confs	Friend	Profs	Fam.	B	β	sr ² incr
Step 1: Gender ^a	-.16*							-1.57	-0.11	
BPRS Score ^a	-.27**	.09						-0.21	-0.25	.09
Step 2: # of Close Confs.	.16	.00	-.10					0.33	0.17	.02
Step 3: # of Friends	-.15	.18*	-.01	.21**				-0.72	-0.16	.03
Step 4: # of Professionals	-.04	.06	.09	.03	.13			0.02	0.01	.00
Step 5: # of Family	-.02	.14	-.04	.11	.13	.13		-0.04	-0.01	.00
							Intercept	24.66		
Means	14.12	___	39.64	3.71	1.55	2.65	2.43			
Std. Dev.	7.53	___	8.97	3.86	1.71	1.69	2.06			
Sample size (n)	141	141	141	141	141	141	141			
										$R^2 = .14$
										Adjusted $R^2 = .10$
										$R = .37$

Step 1: F change (2, 138) = 7.05, $p = .00$

Step 2: F change (1, 137) = 2.74, $p = .10$

Step 3: F change (1, 136) = 3.86, $p = .05$

Step 4: F change (1, 135) = 0.00, $p = .96$

Step 5: F change (1, 134) = 0.02, $p = .89$

^a with gender and level of functioning (controls) entered as a block

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

network components were then entered in the order of; Step 2: number of close confidantes, Step 3: number of friends, Step 4: number of formal supports, and Step 5: number of family members. Recall that this specific entry order was based on a review of research which allowed us to rank the independent variables in order of their hypothesized importance. A presentation of this rationale was presented in the Research Model and Hypotheses section.

Hypothesis 2a. It was hypothesized that the number of self-described “close confidantes” would be predictive of life satisfaction, with the presence of more close confidantes being related to higher levels of life satisfaction. The addition of close confidantes to the equation (Step 2) did not significantly improve R^2 . These results indicate that, after controlling for gender and symptomatology, the number of close confidantes in the network is not a significant predictor of life satisfaction. Hypothesis 2a was not confirmed.

Hypothesis 2b. It was hypothesized that the number of friends in the social network would add to the prediction of life satisfaction. It was postulated that higher numbers of friends would be related to higher life satisfaction ratings. When added to the equation (Step 3) number of friends did not significantly improve R^2 . Although F change (2, 137) = 3.86, $p = .05$, this relationship was not in the expected direction. In this case, having more friends appears to be correlated with *lower* levels of life satisfaction. Thus Hypothesis 2b was not confirmed.

Hypothesis 2c. It was hypothesized that the number of professionals in the social network would add to the prediction of life satisfaction. The addition of professionals to the equation (Step 4) did not significantly improve R^2 . Thus, the number of professionals in the social network is not a significant predictor of life satisfaction. Hypothesis 2c was not confirmed.

Hypothesis 2d. Finally, it was hypothesized that the number of family members would account for the least amount of unique variance in the prediction of life satisfaction. The addition of family members to the equation (Step 5) did not significantly improve R^2 . These results indicate that the number of family members in the social network is not a significant predictor of life satisfaction. Hypothesis 2d was not confirmed.

Research Question 3

After controlling for gender and symptomatology, the size of the total social network and the sizes of the different components of the social network, what is the relationship between subjective social support variables (satisfaction with friends, satisfaction with family, and perceived social support) and life satisfaction?

It was hypothesized that participants' perceived social support would be a significant predictor of their life satisfaction. Pearson correlations were performed as an initial analysis, and a number of significant correlations were noted (Table 8). Once again, a higher level of symptomatology was correlated with lower levels of life satisfaction; $r(126) = -.25, p < .05$; and women had lower scores on the life satisfaction scale than did men; $r(126) = -.18, p < .05$. Symptomatology was also negatively correlated with perceived social support with the more symptomatic participants reporting lower levels of perceived social support; $r(126) = -.22, p < .01$. More symptomatic participants also reported lower satisfaction with family relations; $r(126) = -.24, p < .01$. Positive inter-correlations between all three subjective variables were noted. As well, higher levels of perceived social support, higher levels of satisfaction with non-family relations, and higher levels of satisfaction with family relations were correlated with higher levels of life satisfaction.

To assess the unique contribution of the subjective support variables, a third hierarchical regression analysis was conducted, with satisfaction with life as the predicted variable. The subjective network variables were then entered in the order of; Step 2: perceived social support, Step 3: satisfaction with family relationships, and Step 4: satisfaction with social relationships. A presentation of this rationale used to support this particular entry order was presented in the Research Model and Hypotheses section. As expected (given that gender and symptomatology had demonstrated significant predictive value in the previous two analyses), R^2 was significantly different from zero at the end of Step 1, F change $(2, 123) = 5.92, p < .01$.

Table 8
 Hierarchical Regression of Life Satisfaction on Subjective Social Network Variables

Variables	Life Satis.	Gen	BPRS Score	Soc. Supp.	Sat. Fam.	Sat. S.rels	B	Beta	Sr ² incr
Step 1: Gender ^a	-.18*						-1.29	-0.09	
BPRS Score ^a	-.25*	.10					-0.01	-0.10	.09
Step 2: Perceived Social Support	.44**	-.07	-.22**				0.29	0.16	.15
Step 3: Satisfaction with Family Relations	.57**	-.18*	-.24**	.52**			1.83	0.43	.13
Step 4: Satisfaction with Social Relations	.28**	.10	-.09	.46**	.32**		0.35	0.07	.00
							Intercept	5.07	
Means	14.27	___	39.52	21.74	3.52	4.29			
Std. Dev.	7.48	___	9.03	4.01	1.74	1.38			
Sample size (n)	126	126	126	126	126	126			
									R ² = .37
									Adjusted R ² = .35
									R = .61

Step 1: F change (2, 123) = 5.92, p = .01

Step 2: F change (1, 122) = 23.82, p = .00

Step 3: F change (1, 121) = 25.26, p = .00

Step 4: F change (1, 120) = 0.7, p = .40

^a with gender and level of functioning (controls) entered as a block

* p < .05 (2-tailed)

** p < .01 (2-tailed)

Hypothesis 3a. It was hypothesized that participants' perceived social support would be a significant predictor of their life satisfaction. The addition of perceived social support to the equation (Step 2) significantly improved R^2 , F change (1, 122) = 23.82, $p = .00$. In particular, after controlling for gender and symptomatology, higher levels of perceived social support is related to higher levels of life satisfaction. Hypothesis 3a was confirmed.

Hypothesis 3b. It was hypothesized that participants' satisfaction with their familial relationships would be a significant predictor of their life satisfaction. The addition of satisfaction with family relations to the equation (Step 3) significantly improved R^2 , F change (1, 121) = 25.26, $p = .00$. This suggests that, after controlling for gender and symptomatology, higher levels of satisfaction with family relations is associated with higher levels of life satisfaction. Thus, hypothesis 3b was confirmed.

Hypothesis 3c. It was hypothesized that participants' satisfaction with their non-family relationships would be a significant predictor of their life satisfaction. The addition of satisfaction with non-family relations to the equation (Step 3) did not significantly improve R^2 . This suggests that, after controlling for gender and symptomatology, satisfaction with non-family relations is not a significant predictor of life satisfaction. Thus, hypothesis 3b was not confirmed.

Research Question 4

After controlling for gender and symptomatology, what is the relationship between total network size and community adaptation?

Hypothesis 4. It was hypothesized that the total number of individuals in the social network of participants would be a significant predictor of their community adaptation, with larger networks being related to higher levels of community adaptation. As shown in Table 9, a significant negative correlation was observed between community adaptation and symptomatology; thus participants with higher levels of symptomatology had lower community adaptation ratings; $r(143) = -.31$, $p < .01$. Gender and community adaptation were correlated;

Table 9
 Hierarchical Regression of Community Adaptation on Total Network Size

Variables	Community Adaptation	Gender	BPRS score	Tot. Net. Size	B	B	sr ² (incr.)
Step 1: Gender ^a	.21**				3.50	0.23	
BPRS Score ^a	-.31**	.06			-0.28	-0.32	.14
Step 2: Tot. Network Size	.05	.22**	-.01		-0.01	0.00	.00
				Intercept	56.87		
Means	51.12	—	39.82	6.50			
Std. Dev.	7.81	—	9.05	3.63			
Sample size (n)	143	143	143	143			
							R ² = .14
							Adjusted R ² = .13
							R = .38

Step 1: F change (2, 137) = 11.73, p = .00

Step 2: F change (1, 136) = 0.00, p = .98

^a with gender and level of functioning (controls) entered as a block

* correlation is significant at the 0.05 level (2-tailed)

** correlation is significant at the 0.01 level (2-tailed)

women's community adaptation scores being significantly higher than men's; $r(143) = .21$, $p < .01$. Gender and total network size were also correlated, with women reporting significantly larger social networks than men; $r(143) = .22$, $p < .01$. Community adaptation was not correlated with total network size.

A hierarchical regression was then conducted via SPSS, to examine the relationship between total network size and community adaptation. In order to control for the potential influence of gender and symptomatology, these were entered into the equation first in the form of co-variables (Step 1). R^2 was significantly different from zero at the end of Step 1, F change (2, 140) = 11.73, $p < .001$. However, the addition of total network size to the equation (Step 2) did not reliably improve R^2 . These results indicate that, after controlling for gender and symptomatology, total network size is not a significant predictor of community adaptation. Thus, Hypothesis 4 was not confirmed.

Research Question 5

After controlling for gender and symptomatology, what are the relationships between the sizes of the individual network components and community adaptation?

To predict the individual contribution from each of the four network component variables, Pearson bivariate correlations (2-tailed) and a second hierarchical regression analysis were conducted, with community adaptation as the predicted variable (Table 10). A review of Pearson correlations revealed that higher levels of symptomatology are significantly correlated with lower community adaptation scores. Once again, women had significantly higher levels of community adaptation; $r(143) = .21$, $p < .01$. Women also reported having more friends in their social network than did men; $r(143) = .19$, $p < .05$. As well, a positive correlation was noted between the number of friends in the social network and the number of close confidantes cited; $r(143) = .21$, $p < .01$.

Table 10
Hierarchical Regression of Community Adaptation on Network Component Variables

Variables	Comm. Adapt.	Gend.	BPRS Score	Profs	Close Confs	Frnds	Fam.	B	β	sr ² incr
Step 1: Gender ^a	.21**							3.56	0.23	
BPRS Score ^a	-.31**	.05						-0.28	-0.33	.14
Step 2: # of Professionals	.04	.08	.07					0.22	0.05	.00
Step 3: # of Close Confs.	.00	.01	-.10	.03				-0.11	-0.05	.00
Step 4: # of Friends	.01	.19*	-.01	.14	.21**			-0.20	-0.05	.00
Step 5: # of Family	.06	.15	-.05	.15	.12	.13		0.05	0.01	.00
								Intercept	57.07	
Means	51.12	___	39.82	2.63	3.72	1.57	2.39			
Std. Dev.	7.81	___	9.05	1.69	3.87	1.84	2.06			
Sample size (n)	143	143	143	143	143	143	143			
										R ² = .15
										Adjusted R ² = .11
										R = .39

Step 1: F change (2, 138) = 11.73 p = .00

Step 2: F change (1, 137) = 0.30 p = .59

Step 3: F change (1, 136) = 0.61 p = .44

Step 4: F change (1, 135) = 0.29 p = .59

Step 5: F change (1, 134) = 0.03 p = .87

a with gender and level of functioning (controls) entered as a block

* correlation is significant at the 0.05 level (2-tailed)

** correlation is significant at the 0.01 level (2-tailed)

A hierarchical regression was conducted using SPSS, to examine the relationship between the sizes of individual network components and community adaptation, with gender and symptomatology entered into the regression equation first, in the form of co-variates (Step 1). As with the previous analysis, R^2 was significantly different from zero at the end of step 1, F change (2, 140) = 11.73, p = .00. The network component variables were then entered in the following order; Step 2: number of professionals in the network, Step 3: number of close confidantes, Step 4: number of friends, and Step 5: number of family members. (Recall that a detailed overview of this entry order rationale was presented in the Research Model and Hypotheses section.)

Hypothesis 5a. It was anticipated that the number of professionals in the network would predict community adaptation. However, the addition of professionals to the equation (Step 2) did not significantly improve R^2 . These results indicate that, after controlling for gender and symptomatology, the number of professionals in the social network is not a significant predictor of community adaptation. Thus, hypothesis 5a was not confirmed.

Hypothesis 5b. It was hypothesized that the number of close confidantes in the social network would add to the prediction of community adaptation. The addition of close confidantes to the equation (Step 3) did not significantly improve R^2 . Thus, the number of close confidantes in the social network is not a significant predictor of community adaptation and Hypothesis 5b was not confirmed.

Hypothesis 5c. It was postulated that the number of friends in the social network would add to the prediction of community adaptation. The addition of friends to the equation (Step 4) did not significantly improve R^2 . Thus, the number of friends in the social network is not a significant predictor of community adaptation, and Hypothesis 5c was not confirmed.

Hypothesis 5d. Finally, it was hypothesized that the number of family members would account for the least amount of unique variance in the prediction of community adaptation. The addition of family members to the equation (Step 5) did not significantly improve R^2 . These results indicate that the number of family members in the social network is not a significant predictor of community adaptation. Hypothesis 2d was not confirmed.

Research Question 6

After controlling for gender and symptomatology, the size of the total social network and the size of individual network components, what are the relationships between subjective social support variables (satisfaction with non-family, satisfaction with family, and perceived social support) and community adaptation?

It was hypothesized that participants' perceived social support would be a significant predictor of their community adaptation. Pearson correlations were performed as an initial analysis, and a number of significant correlations were noted (Table 11). Symptomatology was negatively correlated with perceived social support; $r(125) = .22, p < .01$. Thus, participants with higher levels of symptomatology were more likely to perceive themselves as having weak social support. As well, women had higher community adaptation scores than men; $r(125) = .20, p < .05$. To assess the unique contribution of the subjective support variables, a sixth hierarchical regression analysis was conducted, with community adaptation as the predicted variable. None of the objective network variables were entered into the regression, given the non-significant results of the analyses for research questions 4 and 5. The subjective network variables were then entered in the order of; Step 2: perceived social support, Step 3: satisfaction with family relationships, and Step 4: satisfaction with social relationships. A presentation of the rationale used to support this particular entry order was presented in the Research Model and Hypotheses section. As expected (given that gender and symptomatology had demonstrated significant predictive value in the previous two analyses), R^2 was significantly different from zero at the end of Step 1, $F_{\text{change}}(2, 123) = 9.97, p < .01$.

Hypothesis 6a. It was hypothesized that participants' perceived social support would be a significant predictor of their community adaptation. The addition of perceived social support to the equation (Step 2) did not significantly improve R^2 . This suggests that, after controlling for gender and symptomatology, perceived social support is a significant predictor of community adaptation. Hypothesis 6a was not confirmed

Table 11
 Hierarchical Regression of Community Adaptation on Subjective Social Network Variables

Variables	Comm Adapt.	Gend	BPRS Score	Soc. Supp.	Sat. Fam.	Sat. S.rels	B	Beta	Sr ² incr
Step 1: Gender ^a	.20*						3.73	0.24	
BPRS Score ^a	-.30**	.09					-0.27	-0.32	.14
Step 2: Perceived Social Support	.02	-.07	-.22**				-0.13	-0.06	.00
Step 3: Satisfaction with Family Relations	.07	-.18*	-.24**	.52**			0.33	0.08	.00
Step 4: Satisfaction with Social Relations	.02	.10	-.09	.47**	.32**		-0.11	-0.02	.00
							Intercept	58.49	
Means	51.24	—	39.50	21.77	3.54	4.30			
Std. Dev.	7.78	—	9.07	4.02	1.74	1.39			
Sample size (n)	125	125	125	125	125	125			
									R ² = .15
									Adjusted R ² = .11
									R = .38

Step 1: F change (2, 123) = 9.97, $p = .00$

Step 2: F change (1, 122) = 0.21, $p = .65$

Step 3: F change (1, 121) = 0.51, $p = .48$

Step 4: F change (1, 120) = 0.04, $p = .84$

^a with gender and level of functioning (controls) entered as a block

* $p < .05$ (2-tailed)

** $p < .01$ (2-tailed)

Hypothesis 6b. It was hypothesized that participants' satisfaction with their familial relationships would be a significant predictor of their community adaptation. The addition of satisfaction with family relations to the equation (Step 3) did not significantly improve R^2 . This suggests that, after controlling for gender and symptomatology, satisfaction with family relations is not a significant predictor of community adaptation. Thus, hypothesis 6b was not confirmed.

Hypothesis 6c. It was hypothesized that participants' satisfaction with their non-family relationships would be a significant predictor of their community adaptation. The addition of satisfaction with family relations to the equation (Step 3) did not significantly improve R^2 . This suggests that, after controlling for gender and symptomatology, satisfaction with family relations is not a significant predictor of community adaptation. Thus, hypothesis 3b was not confirmed.

Research Question 7

Are homogeneous social networks related to life satisfaction or community adaptation?

Two separate ANOVAs were conducted to examine the relationship between network heterogeneity and the well-being variables. Network heterogeneity was used as the independent variable, with participants grouped as follows; 1) those with social networks consisting primarily of friends; "Homogeneous Friends Network", 2) those with proportionally more family members in their network; "Homogeneous Family Network", 3) those with predominantly formal supports in their networks; "Homogeneous Professionals Network" and 4) those with relatively mixed networks; "Heterogeneous Network (Table 12). A cut-off value of 65% was used. For example, social networks with more than 65% of members described as friends were grouped as "friend-dominated" social networks. Social networks where none of the components made up more than 65% of the network were grouped in the "heterogeneous network" category.

Table 12

Social Network Composition

Homogeneous <i>Friends</i> Network	5.6% (8)
Homogeneous <i>Family</i> Network	8.4% (12)
Homogeneous <i>Professionals</i> Network	21.7% (31)
Heterogeneous Network	64.3% (92)
<u>Total</u>	n = 143

Table 13 presents the mean MCAS and SWLS scores for the different groups. The results of the univariate ANOVAs are presented in Table 14. With Community Adaptation as the dependent variable, network heterogeneity did not appear to account for the mean difference in MCAS scores, $F(3, 139) = 0.10, p > .05$. However, with Life Satisfaction as the dependent variable, network heterogeneity might account for some of the differences in the mean SWLS scores, $F(3, 139) = 2.59, p = .06$. Though not statistically significant, this result suggests that additional research in this area might be of interest.

Table 13
 Descriptive Statistics for Between-Subjects Factors; Well-Being Variables

Network Heterogeneity	Comm. Adaptation ^a	Life Satisfaction ^b
Homogeneous <i>Friends</i> Network	49.63 (7.48)	8.88 (5.08)
Homogeneous <i>Family</i> Network	50.75 (9.04)	18.25 (8.09)
Homogeneous <i>Professionals</i> Network	51.25 (8.13)	14.03 (8.77)
Heterogeneous Network	51.16 (7.85)	13.97 (6.97)
<u>Total</u>	51.06 (7.92)	14.06 (7.53)

^a mean MCAS score; standard deviations in brackets

^b mean SWLS score; standard deviations in brackets

Table 14

Relationship Between Network Heterogeneity and Well-Being: Between Subjects Effects

Dependent Variable	R ²	Adj. R ²	Type III Sum of Squares	df	Mean Sq.	F	Sig
Life Satisfaction	.05	.03	426.56	3, 139	142.19	2.59	.06
Community Adaptation	.01	-.02	19.72	3, 139	6.57	0.10	.96

Exploratory Research Questions

Question E1. Can the existence of a single supportive relationship as opposed to none at all, make a significant difference in the life of a profoundly isolated individual?

The single supportive friend theory was explored by examining the degree to which the citing of one or more person in the “close confidante” category is related to improved well-being (as compared to having zero close confidantes). Participants were first grouped dichotomously; those with zero close confidantes, versus those with one or more close confidantes. They were then grouped trichotomously; those with zero close confidantes, those with one close confidante, and those with two or more close confidantes. Descriptive results of both grouping strategies are presented in Tables 15 and 16.

The ANOVA results are presented in Tables 17 and 18. Using the dichotomized classification, the presence of one or more close confidantes as opposed to none did not appear to account for the mean differences in MCAS (community adaptation) scores, $F(1,141) = 1.87$, $p = .18$. Neither did the presence of one or more close confidantes as opposed to none, account for the mean difference in Satisfaction with Life Scale scores, $F(1,141) = 1.68$, $p = .20$.

Using the trichotomized classification schema, the presence of two or more close confidantes (as opposed to having either one or zero close confidantes) did not account for the mean difference in Satisfaction with Life scores, $F(2, 140) = 1.19$, $p = .31$. Neither did the presence of two or more close confidantes (as opposed to having either one or zero close confidantes) account for the mean difference in MCAS scores, $F(2, 140) = 2.63$, $p = .08$.

Table 15

Descriptive Statistics for Between-Subjects Factors: Close Confidantes (Dichotomized)

Dependent Variable	Number of Close Confidantes	Mean	S.D.	% (N)
<u>Community Adaptation</u>	Zero close confidantes	48.91	8.23	14.7% (21)
- Total MCAS Score	One or more close confidantes	51.43	7.84	85.3% (122)
	<u>Total</u>	51.06	7.92	143
<u>Life Satisfaction</u>	Zero close confidantes	12.10	6.54	14.7% (21)
- Total SWLS score	One or more close confidantes	14.39	7.66	85.3% (122)
	<u>Total</u>	14.06	7.53	143

Table 16

Descriptive Statistics for Between-Subjects Factors: Close Confidantes (Trichotomized)

Dependent Variable	Number of Close Confidantes	Mean	S.D.	% (N)
<u>Community Adaptation</u>	Zero close confidantes	48.90	8.23	14.7% (21)
- Total MCAS Score	One close confidante	48.49	6.20	14.0% (20)
	Two or more close confidantes	52.01	8.02	69.4% (102)
	<u>Total</u>	51.06	7.92	N = 143
<u>Life Satisfaction</u>	Zero close confidantes	12.10	6.54	14.7% (21)
- Total SWLS score	One close confidante	13.10	6.26	14.0% (20)
	Two or more close confidantes	14.65	7.91	69.4% (102)
	<u>Total</u>	14.06	7.53	N = 143

Table 17

Between-Subjects Effects: Number of Close Confidantes (Dichotomized)

Dependent Variable	R ²	Adj. R ²	Type III s.sq	df.	Mean Sq.	F	Sig.
Life Satisfaction	.012	.01	94.63	1, 141	94.63	1.68	.20
Community Adaptation	.013	.01	114.46	1, 141	114.46	1.87	.18

Table 18

Between-Subjects Effects: Number of Close Confidantes (Trichotomized)

Dependent Variable	R ²	Adj. R ²	Type III s.sq	df.	Mean Sq.	F	Sig.
Life Satisfaction	.02	.00	134.65	2, 140	67.32	1.19	.31
Community Adaptation	.04	.02	321.92	2, 140	160.96	2.63	.08

Question E2. Are there gender differences in terms of the size and composition of the social network?

A series of independent sample t-tests were conducted to test the difference between men and women with respect to the size and composition of their social networks (Table 19). To control for the increased Type I error rate associated with this type of analysis, a Bonferroni adjusted alpha-level was used to assess significance ($.05/5 = .01$). A statistically significant difference ($t(142) = -2.64, p = .01$) was found for total network size, with women ($M = 7.36, SD = 4.03$) reporting larger networks overall than men ($M = 5.80, SD = 3.00$). With respect to the different network subgroups, men had an average of 1.22 friends ($SD = 1.46$), and women had an average of 1.86 friends in their social network ($SD = 1.88$), a difference that was significant, $t(142) = -2.29, p = .02$. Men reported having an average of 2.09 family members in their networks ($SD = 1.75$), as compared to women who reported 2.71 family members on average ($SD = 2.30$). This difference approached significance, $t(142) = -1.82, p = .07$. Men had an average of 2.49 professionals in their social networks, as compared to 2.76 professionals in the social networks of women; a non-significant difference, $t(142) = .096, p = .34$. Finally, women reported an average of 3.68 close confidantes, while men reported having an average of 3.61 close confidantes. Once again, this difference was not significant, $t(142) = -0.11, p = .91$.

Table 19

T-test for Equality of Means; Gender Differences in Social Network Size/Composition

Social Network Variable	Men ^a	Women ^a	t - statistic	Df	Sig. (2-tailed)
Total Network Size	5.80 (3.00)	7.36 (4.03)	-2.64	142	.01
Number of Friends	1.22 (1.86)	1.86 (1.88)	-2.29	142	.02
Number of Family Members	2.09 (2.71)	2.71 (2.30)	-1.82	142	.07
Number of Professionals	2.49 (1.69)	2.76 (1.68)	-0.96	142	.34
Number of Close Confidantes	3.61 (4.00)	3.68 (3.72)	-0.11	142	.91

^a Mean number of individuals in total network/subgroup; standard deviations in brackets

Question E3. Are subjective social network variables (satisfaction with familial relationships, satisfaction with non-familial relationships, and perceived social support) more strongly related to well-being variables for women than for men?

Table 20 shows the descriptive statistics for the well-being and social support variables, for men and women. Tests were performed to determine whether the difference between the Pearson correlations for women and men was statistically significant.

Pearson correlations between subjective network variables and life satisfaction are presented in Table 21, in addition to z - scores and probability values for the comparison testing. Perceived social support is significantly correlated with life satisfaction for women; $r(69) = .34$, $p < .01$, and for men; $r(73) = .42$, $p < .01$. Satisfaction with non-family relationships is significantly correlated with life satisfaction for women; $r(67) = .41$, $p < .01$, and for men; $r(72) = .24$, $p < .05$. Finally, satisfaction with family relationships is significantly correlated with life satisfaction for women; $r(66) = .57$, $p < .01$, and also for men; $r(65) = .50$, $p < .01$. None of the differences between the correlations for women and for men were greater than what would be expected as a function of chance.

The correlations between community adaptation and all of the subjective support variables were higher for women than for men (Table 22). However, none of these correlations were significantly different from zero and none of the differences between the correlations for women and for men were greater than what would be expected as a function of chance. Given these data, it would not appear that subjective social network variables are more strongly related to well-being variables for women than for men.

Table 20

Gender Differences; Subjective Social Support Variables and Well-Being Variables

Variable	Gender	Mean	S.D.	N
Perceived Social Support	<i>Men</i>	21.64	4.57	74
	<i>Women</i>	21.09	3.60	69
Satisfaction with Non-Family	<i>Men</i>	4.15	1.49	72
	<i>Women</i>	4.44	1.97	67
Satisfaction with Family	<i>Men</i>	3.87	1.77	65
	<i>Women</i>	3.22	1.73	66
Life Satisfaction (SWLS)	<i>Men</i>	15.19	7.73	73
	<i>Women</i>	12.90	7.13	70
Community Adaptation (MCAS)	<i>Men</i>	49.25	8.29	76
	<i>Women</i>	52.63	7.22	70

Table 21

Correlations Between Subjective Variables and Life Satisfaction; Men vs. Women

Subjective Variable	Life Satisfaction (Women)	Life Satisfaction (Men)	z - score	Sig. (2 -tailed)
Perceived Social Support	.34** (69) ^a	.42** (73)	0.58	n.s.
Satisfaction with Non-Family	.41** (67)	.24* (72)	1.09	n.s.
Satisfaction with Family	.57** (66)	.50** (65)	0.39	n.s.

* p < 0.05 level (2-tailed)

** p < 0.01 level (2-tailed)

^a number of subjects in brackets

Table 22

Correlations Between Subjective Variables and Community Adaptation; Men vs. Women

Subjective Variable	Community Adaptation (Women)	Community Adaptation (Men)	z - score	Sig. (2 - tailed)
Perceived Social Support	.14 (69) ^a	.02 (74)	0.70	n.s.
Satisfaction with Non-Family	.12 (67)	.01 (72)	0.63	n.s.
Satisfaction with Family	.21 (66)	.09 (65)	0.67	n.s.

* $p < 0.05$ level (2-tailed)

** $p < 0.01$ level (2-tailed)

^a number of subjects in brackets

Question E4. After controlling for level of symptomatology and total number of network members, is gender predictive of perceived social support?

For this and the next two exploratory questions, a series of hierarchical multiple regressions were performed so that the unique contribution of each predictor could be ascertained. Level of symptomatology (BPRS score) and total number of individuals in social network were entered into the regression first, as controls. Gender was entered into the equation in Step 2, as a grouping variable (Table 23). After controlling for symptomatology and total network size, gender did not add predictive value in terms of perceived social support, $F(1,136) = 1.85, p = .18$.

Question E6. After controlling for level of symptomatology and number of individuals listed in the friends subgroup, is gender predictive of satisfaction with non-family relationships?

Once again, level of symptomatology and number of individuals in the friends subgroup were entered first, followed by gender (Table 24). After controlling for symptomatology and number of friends, gender did not add predictive value in terms of satisfaction with non-family relationships, $F(1,132) = 0.78, p = .38$.

Question E7. After controlling for level of symptomatology and number of individuals listed in the family subgroup, is gender predictive of satisfaction with family relationships?

Table 25 depicts the regression for the effect of gender on satisfaction with familial relationships. Level of symptomatology and number of family members were entered first, followed by gender. An examination of F-change values revealed that, in this case, gender did add predictive value in terms of satisfaction with family relationships, $F(1,125) = 4.38, p = .04$. This suggests that women were more satisfied with their family relationships, even after controlling for symptomatology and for the number of family members in the network.

Table 24

Hierarchical Regression of Gender (Grouping Variable) on Satisfaction with Non-Family Relations

Variables	Satis. w. non-family	# of non- fam. Membs	BPRS Score	B	β	sr^2 (incr.)
# of non-fam.	.19*			0.14	0.17	
BPRS Score ^a	-.11	.04		-0.02	-0.12	.05
Gender	.10	.21**	.08	0.21	0.08	.01
				Intercep	4.50	
Means	4.29	1.60	39.47			
Std. Deviations	1.36	1.72	8.80			
Sample Size (n)	136	136	136			
						$R^2 = .05$
						Adjusted $R^2 = .03$
						$R = .23$

Step 1: F change (2, 133) = 3.41, $p = .04$

Step 2: F change (1, 132) = 0.78, $p = .38$

^a With total network size and level of functioning (controls) entered as a block

* $p < 0.05$ level (2-tailed)

** $p < 0.01$ level (2-tailed)

Qualitative Analyses

The qualitative component of this project involved a content analysis of participants' (generally) short responses to two targeted, open-ended questions:

- 1. In your own words, is there anything you'd like to change about your relationships with your family?*
- 2. In your own words, is there anything you'd like to change about your relationships with other people? (Clients were informed that this could include relationships with professionals/mental health service providers)*

In order to maximize the objectivity, reliability and validity of the analysis, a team of four qualitative researchers was assembled (including myself). Heather Smith-Fowler, project co-ordinator of the Ottawa CMHEI, served as my primary consultant and co-researcher for the qualitative component of the analyses. She has had extensive experience with this type of analysis, including but not limited to conducting a qualitative Masters thesis project on the social functioning of individuals hospitalized for the treatment of psychiatric illness. Also present on the team was Dr. Pamela Prince; a research psychologist with the Brockville Psychiatric Hospital and Ken Takahachi; an honours student in the University of Ottawa psychology program with an interest in social network theory and previous research experience with the CMHEI project. Dr. Keith Wilson provided additional consultation.

Methodological comments

In qualitative research, the observer-researcher plays a more active, subjective role in the analytic process and is seen as being inseparable from the results of inquiry. Because of this, I will use the first-person narrative in this section. Additionally, qualitative researchers are urged to keep track of their subjective biases, thoughts and feelings as a means of acknowledging and documenting this subjectivity (Lincoln &

Guba, 1985). To this end, I kept detailed process notes through all stages of the qualitative analysis. In these notes, I recorded my cognitive “journey” as I moved back and forth between the data and the theory, while attempting to organize participants’ narratives in as objective a manner as possible. I noted any points of confusion that the team or I encountered, as well as some of my thoughts and feelings about the narratives I was reading. I also made note of my reasons for having made certain decisions about category formulation, or of my reasons for assigning ambiguous phrases to certain categories. These process notes and memos have proven extremely useful, as they have allowed me to go back over my work at later stages and to review the process of qualitative analysis. While acknowledging that this type of documentation does not eliminate subjective bias, it is a way of possibly minimizing or at least acknowledging the crucial subjective aspect of qualitative analysis (Tashakkori & Teddie, 1998).

The process notes also helped to ensure that our inclusion criteria for the categories were easily understood, that they were specific enough to be used by all members of the qualitative research team. Finally, these notes have allowed me to communicate to team members my reasons for making various decisions in constructing and refining the categories. They have also served as a valuable reference source during the team meetings that took place in later stages of the analyses.

Due to time constraints, and to enhance efficiency, I chose to conduct the quantitative and qualitative analyses concurrently. There is the risk that my awareness of the emerging quantitative results may have biased my qualitative readings of the data. However, the collaborative efforts of a four-member research team combined with regular meetings and consultations with my co-researcher Heather Smith-Fowler have served as a check against these biases entering into my interpretations.

In conducting the quantitative and qualitative analyses concurrently, I was made aware of both the parallels and the points of friction which exist between quantitative and

qualitative research methodologies. This process has allowed me to see the possibilities of integrating the positivistic or “conventional” research paradigm which has dominated psychology for so long, with the values inherent in qualitative research. These values include; acceptance of the researcher-observer as an active subject in both the analytic process and the portrayal of results; the documentation of the interaction between researcher-observer and data; and the acknowledgement that scientific inquiry cannot possibly be independent of the beliefs and values of those who design and conduct it (Denzin & Lincoln, 2000).

After the decision to include a qualitative component was made, I began a review of qualitative and naturalistic theory and my familiarization with this subject area continued throughout the process of data analysis. I attempted to maintain a conscious awareness of the “multiple perspectives” that were available to me when reviewing the data, and I took measures to ensure that my analysis of the qualitative data was grounded in an empirically-validated methodology, so that the analysis was as objective as possible given the above mentioned researcher-observer interaction effects.

Because the research team’s analytic plans were formulated after the data had been collected and our analytic procedure evolved continually throughout the analysis, ours can best be conceptualized as an “emergent” research design. Having said this, much of our analytic framework followed the “constant comparative method” of qualitative analysis, introduced by Glaser and Strauss in their work on grounded theory (Strauss, 2000; Glaser & Strauss, 1967). This method involves comparing each unique unit of information (such as a sentence or phrase) with other units of information. As the analysis continues, there is a continuous “back and forth” comparison of these units with existent theory. Eventually, categories are refined, and information units are then compared to the categories to ensure that the categories are valid and workable (i.e. are they comprehensive, “elegant”, efficient?). Thus, while the quantitative analysis outlined

earlier made use of deductive reasoning processes, this segment of the analysis was a far more *inductive* process.

Content Analysis and Coding

A theoretically grounded, multi-stage qualitative analysis was conducted by the four member research team and the following is an overview of this process.

Stage one. After a meeting with Heather Smith-Fowler and Pamela Prince, we decided to analyse the data pertaining to family relationships first, and then we analysed the data regarding relationships with non-family members. We chose to analyse these two domains separately, primarily to avoid confusion and to minimize the possibility that the cognitive/conceptual categories I was delineating for one domain would contaminate my analysis of the other domain.

The team's first task was to read through the responses of all participants and to circle "key words" (often adjectives and nouns) which captured the emotional tone or the content of a participant's response. This process allowed for an initial "back and forth" comparative dialogue between the data and our emergent awareness of repetitive concepts. Once all responses had been screened, the key words were listed and counted, and these data were used in the next stage of analysis; the creation and refinement of a preliminary list of categories.

Stage two. By referring to both the key word list and my process notes, I developed an initial list of categories which I then refined using the constant comparative method. As with step one, I first analysed the family relationships responses, followed by the non-familial relationship responses. After reviewing my list of categories, I realized that my initial categorization scheme was too detailed and did not adequately differentiate between participants' responses. After careful editing, I was eventually able to produce a list of 35 categories for responses to the question about familial relationships, and 34

categories for responses to the question about non-familial relationships.

I then sent both sets of categories and their inclusion criteria to the other three qualitative analysis team members. I asked them to read through the categories and to attempt to use them in a preliminary coding of the raw data. I also asked my co-researchers to make note of any areas which they found confusing or difficult, and to bring these notes to our initial meeting.

Stage three. All four team members were present at the initial 3-hour conciliation meeting. Dr. Prince participated by telephone. All team members agreed that the categories as they stood were unwieldy, some remained conceptually unclear, and that many of them still failed to differentiate adequately between participants' statements. The categories were not as clearly defined as team members would have liked them to be, nor were thought to be mutually exclusive or exhaustive. All team members agreed that we needed to pare down the number of categories. Finally, together we decided to sort the responses into more comprehensive "preliminary" sets.

Our first decision was to create a group of four preliminary categories pertaining to each question (for inclusion criteria, see Appendices K and L). These were coded as follows; (a) participants who declined to answer the question (blanks and "no responses"), (b) participants who indicated verbally that there was nothing they wanted to change (these participants were either satisfied with their family or non-family relationships, or they felt that the situation was entirely hopeless or irreparable), (c) participants who clearly articulated changes that they would like in their relationships with family/non-family and (d) ambivalent, vague, and sarcastic responses. Results of this coding scheme are presented in Tables 26 (family relationships) and 27 (non-family relationships).

Table 26

Initial Response Coding Scheme - Family Relationships

Response Category	Percentage of participants (N = 147)
Blank/ no response	6.1 % (9)
No change desired	18.4 % (27)
Change desired	66.7 % (98)
Ambivalent responses	8.8 % (13)

Table 27

Initial Response Coding Scheme - Non-Family Relationships

Response Category	Percentage of participants (N = 147)
Blank/ no response	1.4% (2)
No change desired	20.4% (30)
Change desired	73.5% (108)
Ambivalent responses	4.8% (7)

Stage four. Following the team meeting and further theoretically-grounded reviewing of the qualitative data, I refined the categories to accommodate the feedback I had received from team members. In refining the categories, I made reference to both the minutes from the team meeting, and to my earlier process notes. For example, we had agreed that I would dramatically reduce the number of categories by merging a number of categories and eliminating or minimizing some of their more “value-laden” features, replacing them when necessary with sub-categorical groupings. As well, three separate categories (all pertaining to the desire for changes in the amount of contact with family members) were condensed into a single category labelled “Amount of contact”. In another instance, a review of the data revealed that a relatively small number of responses made reference to romantic involvement. Consequently, the categories; “Desire to establish a romantic relationship” and “Desire to improve/change the quality of marital relationship or romantic partnership” were merged into a single “Romantic Relationship” category with two sub-groupings. In another instance, the categories of past abuse, ongoing abuse and hostility from others, were merged into a single “Abuse” category (with a number of sub-categorizations, including emotional/psychological abuse, physical abuse, and hostility).

The second draft consisted of 24 categories for the *relationships with family* question and 26 for the *relationships with non-family* question. Both lists included sub-categories as well as detailed descriptions of what the categories were intended to capture. I provided copies of both sets of categories to Heather Smith-Fowler and Pamela Prince, who surveyed them and provided me with feedback. Both felt that the categories were more workable and efficient at this point, and they provided some suggestions as to how I might further refine them.

Stage five. After making several small changes based on the suggestions of my research team members, I had a working set of 22 categories for the *relationships with*

family question (Appendix M), and 23 categories for the *relationships with non-family* domain (Appendix N).

Stage six. I re-evaluated the qualitative data and assigned each unit of information to a category. When warranted, I also evaluated which sub-category most accurately captured a sentence or phrase. This stage of the analysis generated statement counts for sub-categories of both the family relations and the non-family relations data.

Stage seven. Following a review of the above sub-categorical statement counts, I collapsed the sub-categories into their “parent” categories (e.g. the sum total number of statements pertaining to “abuse”, tallied from all of the abuse sub-categories). In this way, I was able to generate a final set of 22 “themes” for the family domain (Results; Table 28), and 22 “themes” for the non-family domain (Results; Table 29).

This represents a move from the specific (sub-categorical counts), back to a more general schematization, a process which is very much in line with the “back and forth” spirit of grounded theory methodology. At this stage, I also re-evaluated cases where the data did not seem to fit the conceptual schema as they stood and in a few instances, redundant or unnecessary categories were collapsed into more appropriate, existent category. For example, it became clear that the category of “highly isolated” in the non-familial relations domain was not capturing any unique information since I had only assigned one response to it (see Appendix N: Category 7). As a result, this category was eliminated, and the response was coded in the “amount of contact” category (Appendix N: Category 13).

Stage eight. As a final step, I reviewed the categories, and determined which categories were applicable to both domains. For comparison purposes, I have presented the statement counts for these 15 “common” categories in the results section, Table 30.

Table 28
Changes to Relationships with Family: Categories and Sub-Categories (N = 98 participants)

Category	Number of Statements ^a	% of Statements
1. Amount and/or frequency of contact.....	37	16.0 %
a) Total estrangement with regret (3)		
b) Total estrangement with neutral/mixed feelings (4)		
c) Desire for more contact (27)		
d) Desire for less or less frequent contact (3)		
2. Unconditional Acceptance.....	22	9.5 %
3. Intra-familial dynamics.....	20	8.7 %
a) Dysfunction (10)		
b) Desire to improve cohesion (10)		
4. Dependency and paternalism.....	17	7.4 %
5. Communication issues.....	16	6.8 %
6. Intimacy.....	13	5.6 %
7. Personality traits; observations about family.....	12	5.2 %
8. Positive statements about family relations.....	10	4.8 %
9. Pragmatic concerns.....	10	4.8 %
10. Memories, reminiscences and regrets.....	8	3.8 %
11. Abuse.....	8	3.8 %
a) Past abuse – physical (2)		
b) Ongoing abuse – physical (1)		
c) Ongoing abuse - emotional/psychological (1)		
d) Ongoing abuse- exploitation (1)		
e) Hostility (3)		

Category	Number of Statements ^a	% of Statements
12. Impact of mental illness on family relations.....	7	3.0 %
a) Impact of participant's mental illness (3)		
b) Impact of other family member's mental illness (4)		
13. Hostile statements about family.....	7	3.0 %
a) Hostile statements towards entire family (5)		
b) Hostile statements towards specific family member (2)		
14. Reciprocity.....	7	3.0 %
15. Philosophical statements.....	6	2.6 %
a) Philosophical statements; psycho-social/family (3)		
b) Philosophical statements; general (3)		
16. Trust issues.....	6	2.6 %
17. Mixed feelings about family.....	6	2.6 %
18. Personality traits; self-reflections.....	5	2.2 %
19. Estrangement; self-imposed or "welcomed".....	5	2.2 %
20. Lack of practical support from family.....	5	2.2 %
21. Changes occurring in family relations.....	3	1.3 %
a) Changing family relations; improvement (2)		
b) Changing family relations; deterioration (1)		
22. Embarrassment and shame.....	1	0.4 %
Total # of distinct statements	231	

^a Of the 98 participants who desired change, a number produced more than one distinct statement per category and across categories.

Table 29
Changes to Relationships with Non-Family: Categories and Sub-Categories (N=108 participants)

Category	Number of Statements *	% of Statements
1. Desire for different types of friends/contacts.....	24	10.3 %
a) Incompatibility with friends (11)		
b) Desires non-devalued or “normal” friends (13)		
2. Desire for more friends/contacts.....	23	9.9 %
3. Social skills.....	19	8.2 %
a) Positive statement about social/interpersonal skills (1)		
b) Deficits in social/interpersonal skills (16)		
c) Desire to decrease hostility towards others (2)		
4. Amount of contact.....	18	7.8 %
a) Desires more contact with others (12)		
b) Desires less contact with certain people (6)		
5. Trust issues.....	17	7.3 %
6. Activities.....	15	6.5 %
7. Empowerment.....	12	5.2 %
Difficulty establishing boundaries (5)		
Desire to increase assertiveness (7)		
8. Positive statements about social relations.....	11	4.7 %
9. Social withdrawal.....	11	4.7 %
10. Pragmatic concerns.....	11	4.7 %
11. Mental health as factor in social relations.....	11	4.7 %
12. Intimacy (emotional).....	11	4.7 %
13. Abuse.....	8	3.5 %
a) Past abuse – exploitation (2)		
b) Ongoing abuse – exploitation (2)		
c) Hostility (4)		

Category	Number of Statements *	% of Statements
14. Social validation, respect and inclusion.....	8	3.5 %
15. Philosophical statements.....	7	3.0 %
16. Romantic and/or sexual relationships.....	7	3.0 %
a) Desire to establish new romantic/sexual relationship (2)		
b) Desire for changes to current relationship (5)		
17. Changing social relations.....	4	1.7 %
a) Worsening interpersonal relations (1)		
b) Improving interpersonal relations (3)		
18. Relationships with professionals.....	4	1.7 %
19. Reminiscences.....	3	1.3 %
20. Reciprocity.....	3	1.3 %
21. Social acceptability (appearance, hygiene).....	3	1.3 %
22. Self-sufficiency.....	2	0.8 %
Total # of distinct statements	232	

* Of the 98 participants who desired change, a number produced more than one distinct statement per category and across categories.

Table 30
Categories Common to Relationships with Family and Non-Family

Category	Non-Family Relations	Family Relations
	<i>N (%)</i>	<i>N (%)</i>
1. Positive statements	11 (4.7)	10 (4.8)
2. Memories, reminiscences and regrets	3 (1.3)	8 (3.8)
3. Philosophical and existential statements	7 (3.0)	6 (2.6)
4. Changing relationships	4 (1.7)	3 (1.3)
5. Pragmatic concerns	11 (4.7)	10 (4.8)
6. Mental illness as a factor in relationships	11 (4.7)	7 (3.0)
7. Abuse	8 (3.5)	8 (3.8)
8. Trust issues	17 (7.3)	6 (2.6)
9. Amount of contact	18 (7.8)	37 (16.0)
10. Validation unconditional acceptance 8	3.5)	2 (9.5)
11. Intimacy (emotional)	11 (4.7)	13 (5.6)
12. Reciprocity	3 (1.3)	7 (3.0)
13. Self-sufficiency and independence	2 (0.8)	17 (7.4)
14. Social skills and personality self-reflections	19 (8.2)	5 (2.2)
15. Shame and social acceptability	3 (1.3)	1 (0.4)
Total # of statements	136	160

Summary of Qualitative Results

Family relationships. In total, nine participants (6.1% of the total sample) chose not to respond to the question about family relationships (Table 26). Twenty-seven (18.4% of the total sample) reported that they did not wish to make any changes in their relationships with family members and made no further comment. Ninety-eight participants clearly articulated a desire for changes in this life domain (66.7% of the total sample), while 13 participants (8.8% of the total sample) made ambivalent or sarcastic comments such as “I’d like to have a whole new family” or “I’d like to change everything (about their family)”. The one 111 participants who expressed a desire for change (either through clearly articulated or sarcastic/ambivalent responses) produced a total of 231 distinct statements.

Table 28 presents the numbers of statements in each category. In reviewing them, some trends stand out. For example, the amount of contact with family members was the most frequently cited issue. Primarily, participants wished to *increase* the amount of contact they have with family members; 27 participants (24% of the 111 participants who expressed a desire for change) wanted to see or to communicate with family members more often and/or have longer visits; “It’s as if my sister is the whole family but there are others and they don’t call me. They did, but they don’t anymore. I wonder why they don’t call me. (I’d like) more contact... it hurts.”

Three participants reported being totally estranged from their families and described this as a situation they regretted, while four participants were estranged from some or all family members but had mixed or neutral feelings about the lack of contact. Five described familial estrangement as a situation that they welcomed or preferred; “Not a chance. I live my own life, I don’t see them. Their noses are not in my business. I don’t have to listen to their nonsense.” In addition, three participants expressed a desire for less frequent contact with family.

Another common theme was the desire for more unconditional acceptance and understanding from family members. Twenty-two participants (20 %) felt that they were not accepted “as they were” by family members, or they felt misunderstood;

“I would like that they accept me for what I am. But I can’t change them. I can’t make them accept me for what I am. I am a person. I’m not an animal... not a pig. I want to be accepted as a person by my family. They have never treated me well and it’s worse now than it was when I was growing up.” (Client has had no contact with any family members for 3-4 years)

Along these lines, some participants spoke of having been openly criticized by family members while others described feelings of feeling like an “outcast”, or that their family members were ashamed of them because of their mental illness or lifestyle;

“My parents are good Catholics. Standing is important. They label people. I’m the black sheep of the family. When they visit me, it’s like when we were visiting my grandmother. She was facing the wall, just waiting to die. I wish they (parents) would treat us all (siblings) the same. They’re cutting me off support.”

Some of the participants who felt that their families did not accept them, also described feeling pressured to make unrealistic or impossible changes in their lives. Many felt that their family members did not understand or fully appreciate the difficulties that they faced as a result of their mental health problems; “I wish that they would understand a lot more about this society and understand that I don’t like the way I’m living. I wish they would understand that there are things in life that you have to do to survive.” Another participant remarked; “My family wants me to be happy, but on their terms... It’s hard for them to deal with me because they don’t know what addiction is all about. I’d like them to trust me and let me live life on my terms.”

Related to the desire for unconditional acceptance, 17 participants (15 %) felt that they were too “dependent” on their families, or they described ongoing struggles for independence; “I’d like to be less dependent on them, more self-sufficient. I’d like to be

less present in their lives.” Many described their family relationships as overly controlling or paternalistic; “I guess I’m not at their whim like I used to be... they’ve started to accept it. I’d like them to accept my new independence.” A few participants believed that their families were overly protective of them because of their psychiatric histories, and they felt excluded or distanced as a result; “I wish that I was seen as a family member rather than as someone fragile. My sister is ill and no one tells me because they think it will set me back. I always hear it through the grapevine.”

Reciprocity was an issue for some, with seven participants describing family situations where they had felt “helpless” or unable to support members of their family during hard times;

“(I would like) my sister with (Multiple Sclerosis? -sic) to get better. She has no control over her body. I wish I could go and see them all the time... to be there for them. I still have their Christmas presents. My whole life is a mess so there’s no way I can help them out. They don’t need to see me depressed like this. I don’t have a car anymore. When my old man went to jail, I lost everything.”

Intra-familial dynamics and patterns of behaviour (both past and ongoing) were clearly an issue; a total of 20 statements pertained to problems in this area. Ten participants described past or ongoing family dysfunction of some sort and ten participants wished to improve the level of cohesion and closeness between family members. For example, one participant said “I wish my step-father and brothers were less chauvinistic and gluttonous. My mother does all the work and they don’t do anything. Just consume.” Other participants reflected on the ways that they believed family dysfunction had contributed to or was exacerbating their present problems;

“If they (family) members change themselves, things would get better. I can learn from my family’s mistakes. And if I have a family, I hope that they (the mistakes) will not happen again. When I was nine years old, my mom used to hang out with Hell’s Angels guys, they made me smoke marijuana. It’s not their fault but (mistakes) have been happening from generation to

generation. My family is the most 'fucked up' I've ever met. My mom is intelligent. She used to be a (professional) but (she had) emotional stuff. They are ignorant. I deal with my own emotions. At least I do not escape."

Sixteen participants (14 %) felt that poor communication was causing problems between them and family members, or between other members of their family. They described misunderstandings, "communication barriers", an inability for their family members to speak calmly and rationally about contentious issues, and hurtful family gossip; "(I'd like to) be able to talk with them. My father never talks to me or tells me anything unless it's something negative. My mother is too much like him now. When I talk to her on the phone, she says stupid things (that are) way out of line." Many expressed a desire to improve communication, although most had only vague ideas as to how this could be accomplished; "We argue a lot. (I'd like us to) sit down and listen to each other."

Finally, ten participants (9 %) listed pragmatic factors as causing problems in their relationships with family members. One participant wanted to have more contact with their family, but lacked transportation. Another wanted to invite family members to her apartment, but was embarrassed because she did not have any furniture. Several felt that geographical barriers isolated them and prevented them from seeing their families, and several felt that poverty was impeding their ability to socialize.

A number of trends stood out. A number of participants are estranged from family members, and many desire more contact with their family. There is a desire for more unconditional acceptance from families, and a sense that kin relationships are often characterized by criticism, blame and shame. A feeling of being overly dependent on family for practical and emotional support was commonly stated, and many participants feel that there are unresolved communication issues within their family network. A felt lack of intimacy was also a key concern with respect to family relationships.

Non-family relationships. The question about non-family relationships evoked somewhat different content and response patterns. Only two participants (1.4 % of the total sample) chose not to respond when asked what types of changes they would like to make in their relationships with other people (Table 27). Thirty (20.4 % of the total sample) reported that they did not wish to make any changes in their relationships with others, and made no further comments. One hundred and eight participants expressed a clearly articulated desire for change in their non-family relations (73.5 % of the total sample) and seven participants (4.8 % of the total sample) gave vague or difficult to categorize responses such as “No, just (change) the people themselves”. The 115 participants who expressed a desire for change (either clearly articulated or vague) made a total of 232 distinct statements.

As with the family relationships commentaries, certain themes emerged. A number of statements (24 of the 232 distinct statements) pertained to a desire for different types of friends (Table 29). Eleven participants (10% of the 115 participants who expressed a desire for changes in their social relationships) cited a general lack of compatibility with their “friends” and 13 participants (11 %) expressed concern that their friendships were either predominantly or exclusively with other devalued people. They wanted to have friends who were “healthy” or “normal”; “Most people in here have a mental illness. They are not normal. I need something new, (something) that makes me happy, but not here.” Some felt that their present friendships were based solely on shared experiences of mental illness, rather than on true compatibility; “I’d like to go back to being my normal self and call people.... people who are on my level. My friends are not at my level.” Along these lines, a number of participants described how their experiences with homelessness or “street culture” had negatively affected their social networks;

Participant A: “I’m mostly dissatisfied with the people I meet now at The Well (a drop-in centre for homeless people) because they don’t have a life and we have nothing in common. I’d like to have some sort of normal life where I could fit in. When I can do it, I’d like to be around normal, well-balanced people.”

Participant B: “I don’t have the opportunity to meet many people other than on the street and that doesn’t appeal to me. I’d like to have a more cheerful relationship... to meet someone who is ‘happy-go-lucky’ and easy-going. It might rub off (on me).”

Participant C: “I don’t make friends because I was dragged into a situation that I don’t like. I do not like people like me (welfare recipients) that accept their situation without doing anything about it. I don’t make friends because I don’t want to become like them. I protect myself... I set barriers against people... I don’t want to say ‘Yes, (drug use) is very good, I encourage you to smoke crack and destroy your life!’”

A large number of participants described their social networks as being too sparse, with a total of 22 participants (19%) expressing a desire for more friends. A few appeared to have only recently realized how small their networks actually were (sometimes as a result of participating in this study) and some gave complex explanations for the small size of their networks;

“I grew up with German people and they didn’t mind (not having friends). They always stayed at home. I never had any friends when I was growing up. I wanted to know people (when I was) growing up. Now I would like to have some friends... I need some friends (but) it’s hard for me to make friends because my mind is damaged.”

As well, 12 participants stated that they would like to spend more time with people; “I wish others would understand me. I’d like to spend time with them, but I don’t think they want to spend time with me.” Interestingly, six spoke of wanting less contact, usually with specific “problem” friends or acquaintances. Sixteen participants felt that they were lacking in social skills and felt hopeful that they could make improvements in this area; “My social skills are not the greatest. I was raised on a farm...very isolated.

My social skills were never developed. I'm working on it though. I'm just getting used to crowds and shopping centers."

Although some participants felt that they could improve their social skills, 11 participants described themselves as asocial or withdrawn by nature, and some were quite skeptical about the possibility of making any real changes in this area. Also, 11 participants felt that symptoms and behaviours associated with their mental illness interfered with their social networks; "I'd like to see my friends more often but I'd have to get well mentally first. When I'm first coming out of psychotic states I tend to hide for a while." Another said; "There are some neighbours that used to be nice, but not anymore. They turned against me since they reported that I was making noises... breaking things in my apartment." Along these lines, a few (three participants) believed that their appearance frightened or bothered people and felt this to be a barrier in their interpersonal relations. For example; "Old people on the bus... they see my tattoos and they get nervous. But I don't want to scare people. I really like old people."

Seventeen participants felt it difficult to trust others and some linked this to past or ongoing abuse, exploitation, or rejection; "(My friends) bother me for money and booze all the time and don't return the favour. My friends are borderline retarded... I need to be careful with them. Some people just come over to my place to drink." Related to trust issues, was a desire for increased "empowerment", with 17 participants either reflecting upon how they have difficulty establishing boundaries; "I don't like how I'm so open... too giving and caring. I get used and trampled on." or stating that they would like to become more assertive; "I'd like to be more honest... like when my best friend comes over and I can't tell her to go home. I'd like to be more assertive. I wouldn't let people walk all over me."

Many participants believed that somehow recreation could be used as a means of improving their social relations, with 15 participants expressing a desire to do more or different kinds of activities as a means of hopefully making some friends or improving

existing friendships. One participant hoped to get a camera so that “I can show others how good I am at photography.” Another remarked; “I’m a loner and I don’t see many other people. But if I had an art studio I could make some paintings, people would come to see them (and) I could meet those people.” Participants also described feeling “bored”, both socially and recreationally; “I miss my old friends now. We always do the same thing and it gets boring; watch T.V.... play Nintendo...”

Finally, 11 participants expressed a desire for greater emotional intimacy in their interpersonal relationships; “(I’d like to) share my past more with others. I’d like to have the ability to be more frank with people about how things were in the past. But it just doesn’t work out that way.” Two participants wanted to find a romantic partner; “When I meet the woman of my life, it is there that I will discover something else.” and five wished to establish changes in an established romantic relationship; “I wish my marriage was more intact... Ottawa is a cold city unless you have someone to be with.”

To summarize, many participants desire more friends and also they would like to meet a “different kind of friend”. A number of participants believe that they are lacking the social skills necessary to meet new friends, and there were a number who would like to meet more people but are being hampered by a lack of trust. Many would like to take up new hobbies or they would like to participate more in activities as a means of meeting people or enhancing their existent social ties. Empowerment (a desire to learn about boundaries and assertiveness) was a key theme. And finally, a number of participants felt that pragmatic issues; often related to homelessness, poverty and a lack of disposable income, are negatively affecting their social networks.

Common categories. Fifteen categories were common to both the family and non-family qualitative data (Table 30). Among these, several trends are worth mentioning. Seventeen participants spoke of mistrust as a barrier or a problem in their non-family relations whereas only six mentioned mistrust as an issue in their family relations. Thirty-seven participants wanted more contact with family members, while half that

number (nineteen) wanted more contact with their friends and other non-family members. Eight participants described wanting to feel validated, included and accepted unconditionally by people outside of their family or by society in general, whereas nearly three nearly times that number (22 participants) desired unconditional acceptance from their families. Conversely, 19 participants believed that by developing or improving their interpersonal skills and/or trying to “correct” aspects of their personalities, they might improve their social relationships. However, only five participants believed that by improving their own interpersonal skills, they could improve their relationships with family members. Finally, self-sufficiency and independence was a far greater issue with respect to family relationships, with seventeen participants commenting on this. In contrast, only two participants wanted to be more self-sufficient or independent in their non-family relationships.

Discussion

The purpose of this study was to explore the relationships between social network variables and well-being in a population of adults with psychiatric disabilities. The study had four objectives: (a) to describe the social networks of individuals with a history of severe and persistent mental illness and also a recent history of homelessness and/or inadequate housing; (b) to examine the relationship between well-being and the objective features of the social network; (c) to delineate the links between participants' subjective evaluations of their interpersonal relationships and their well-being; and (d) to analyze the qualitative data and use it to contextualize and inform the quantitative results.

The “weaving together” of quantitative and qualitative results in this discussion stems from my mixed-methodology approach. Increasingly, proponents of mixed research methodologies believe that the results of quantitative, deductive analysis can be complemented by qualitative findings. Thus, through the careful insertion of narrative descriptions, our research may be presented both in the language of “hard” statistics and also through the narrative descriptions of participants (Tashakkori & Teddie, 1998). This technique brings research findings to life in a way that pure numbers and statistics cannot. Aside from the improved aesthetics and “readability” that qualitative results confer, there are other advantages to this type of presentation. For example, qualitative data may be used to explore areas where the quantitative results are inconclusive or confusing. Also, when qualitative and quantitative data appear to be in conflict, fruitful avenues of discussion and theory formulation often emerge.

The following sections address the findings of the study as they relate to each of the objectives. First, participant characteristics/demographics are reviewed and discussed. This is followed by a discussion of the social network findings. Specific attention is paid to the large discrepancy between the overall size of the social network and the number of close, confiding relationships that participants claim to have. The

results of the quantitative analyses that tested the study's hypotheses are then reviewed and discussed. This is followed by a brief discussion of some of the study's exploratory analyses. The study's limitations are then addressed and some suggestions for future research directions are presented. In closing I have addressed possible clinical and policy implications of these research findings.

Participant Characteristics: An Economically and Socially Marginalized Population

It is worth revisiting the demographics, diagnoses and life circumstances of participants, as this will provide the reader with a contextual backdrop for the study's analytic findings. In the literature review I touched on research that looks at the cyclical interaction between poverty, unemployment, mental illness, and social isolation (Grusky et al., 1990; Holmes-Eber & Riger, 1990; Lipton, Cohen, Fischer & Katz, 1981; Mitchell, 1982). It appears that increased levels of isolation accompany both the onset of severe and persistent mental illness *and* subsequent symptoms flare-ups or psychotic breaks (Lipton et al., 1981). Job loss and/or loss of housing may also be related to psychotic relapse and social withdrawal. The demographic results of this study suggest that both the catalysts and the results of such a cycle are present in the lives of many participants. We know that all too often, the outcome is that people with severe and persistent mental illness become irreversibly alienated from so-called mainstream society, stigmatized and re-cast into devalued roles. Our qualitative results confirm that at times poverty, homelessness and unemployment have contributed to the sense of isolation and marginalization described by participants. For example, one participant in the study stated; "I'm always nice to people, but it doesn't work out. (It's) very difficult to have relationships living in this place (a homeless shelter)".

The fact that almost all participants were single (96 % of the total sample) can be seen as both a reflection of their psychiatric histories, and also as something that could

exacerbate the sense of isolation and overall dissatisfaction many described. However, it is worth noting that when asked about the types of changes they would like to make in their social lives, only two participants wanted to meet a romantic or sexual partner (an additional five wanted to make changes in a current romantic relationship). In a sense, romantic love may be too high on participants' hierarchy of unmet social needs. Perhaps many have reached a point in their lives where they have given up on the possibility of romantic love and have focussed their energy on what they perceive as a more modest and/or realistic goal; the acquisition of a few good friends. It is also possible that medication is dampening the romantic aspirations of participants, given that sexual dysfunction and decreased sexual desire are a well-documented side effect of some psychotropic drugs (Anderson, Goldbert & Martin, 2004; Rosenberg, Bleiberg, Koscis & Gross, 2003; Mir & Taylor, 2001; Morales, Heaton & Conda, 1994).

Not surprisingly, very few participants held jobs. Only eight percent were working, and this was usually on a part-time, casual basis or in volunteer positions. Almost none were employed full-time. Extremely high levels of unemployment are the norm with this population (Anthony & Blanch, 1989; Ramin, 2005; White, 2004), a situation which is antithetical to the goals of normalization. Chronic unemployment is known to exacerbate social marginalization, and it detracts from community integration (Cohen, 2002). The extreme poverty of many participants (average monthly income was \$753.00) must also be considered.

Lack of disposable income, transportation barriers and other pragmatic issues related to poverty, were mentioned by some participants as preventing them from meeting people and adequately maintaining their family relations and their social connections. According to one participant; "If I had more money and transportation, I could see people more often and improve my relationships with them. It boils down to dollars and cents". Another said; "I haven't got my own transportation so I have to bug my folks for rides to

weddings or funerals of family members. I'd like to see them more often but they live far away and I'd have to take a bus..." Along these lines, one participant felt that people compared his present poverty to his past financial success, and he wished that others would; "accept me for who I am, not who I was... but when you're poor, no one wants to talk to you. I had lots of friends ten years ago when I was making \$1500 a week... everybody's out for the almighty dollar."

Compounding their relatively severe mental health difficulties (90 percent had experienced at least one psychiatric hospitalization at some point in their lives), many participants (37 %) had been homeless in the nine months before the baseline interview. A quarter of these had spent more than 50 nights homeless. Fourteen percent of participants had been living in shelters, and five percent had been living exclusively on the streets. Participants also described extremely high levels of housing instability (79% had moved at least once in the nine-months prior to being interviewed; 59% had moved twice or more). Clearly, inadequate housing and housing instability had been significant life stressors for many participants in the months preceding their being interviewed for the study. Thus, it is highly likely that the experience of homelessness, shelter living, multiple moves and a multitude of other challenges related to having inadequate housing, would have affected participants' social networks. In their qualitative narratives, a number of participants mentioned housing-related issues and pre-existing ties with street culture as having had a negative impact on their social networks. One said; "the reason I was going to apply for subsidized housing was so that my wife and I could be together." As another put it; "The people I meet now at The Well (a drop-in center for homeless people)... I'm mostly dissatisfied (with them) because they don't have a life and we have nothing in common. I'd like to have some sort of normal life where I could fit in. When I can do it, I'd like to be around normal, well-balanced people."

Social Network Findings: Isolation and Loneliness

Participants' social networks were abnormally small. The average social network contained 6.6 people, and 48 participants (33 %) had less than five people *in total* in their social networks. Larger networks were clearly the exception rather than the norm, with only 12% of participants listing more than ten network members in total. Previous analyses of the social networks of people with severe mental illness have produced similar findings (Hall & Nelson, 1996; Segal & Holschuh, 1991; Shepherd et al., 1996). The small size of participants' networks is highlighted when they are compared to the social networks of the general population, which have generally been assessed at between 20 to 30 members (Atkinson, 1986; Cutler, Tatum & Shore, 1987). Thus, there were very few participants who had anything approaching what could be described as a "normal-sized" social network, and many (if not the majority) of the participants in this study can be described as socially isolated. In their qualitative commentaries, a number of participants commented on the sparseness of their networks. For example, fifteen percent of the participants who wanted to establish changes in their social relationships, said that they would like to have more friends.

The fact that participants described having more professionals on average in their networks than they did friends or family members is noteworthy, albeit not surprising to anyone who has worked with this population. A full 36% percent of participants described having *no friends* and 20% listed no family members in their network. In contrast, only eight participants (5.6 % of the total sample) did not include any professionals in their social network. Thus, a clear picture does emerge of people who may have very few friends and/or family members, and who sometimes have more professionals in their social networks than they do friends or family. This is consistent with previous social network research involving this population, and it gives weight to the criticisms of mental health advocates (Carling, 1995; Grusky et al., 1990; Mercier, 1994;

Rosenfield & Wenzel, 1997). These results also support the anecdotal observations of many mental health workers, who have long expressed concern about being the only source of social contact for some of their clients.

Our study also found that social network features varied with gender, in ways that mirror the general population (Sarason, Sarason, Hacker & Basham, 1985; Schumaker & Hill, 1991; Thoits, 1995). For example, women's social networks were significantly larger than men's. Women also listed more friends than did men. Women did not, however, have more professionals in their networks. Nor did women report having more close confidantes than did men, which is interesting. Gender differences are examined more closely in a later section.

The Relationship between the Number of Close Confidantes and Social Network Size

The Nelson and Hall Social Network Measure required participants to provide the initials of friends, family and others whom they consider to be "important". The Cutrona and Russell (1987) measure asked; "How many people (including friends, family and professionals) do you know whom you feel at ease with and can talk to about personal matters ('close confidantes')?" The average number of network members in total (6.6 according to the Nelson & Hall Measure) is almost twice the number of close confidantes that are listed (3.7 according to the Cutrona and Russell Measure). It appears that (while there is undoubtedly some overlap) these measures are assessing very different things. Most likely, the Cutrona and Russell measure is capturing only those relationships that are supportive, positive and intimate, whereas the Nelson and Hall measure is capturing most of the significant people in a participant's life, regardless of whether or not these relationships are experienced as positive. Some of the individuals that participants reflexively listed as "friends" may provide little to nothing in the way of actual supportive transactions. These results can also be placed in the context of the qualitative comments,

where participants sometimes described being ignored, exploited, sometimes even abused by friends and family.

It is worth noting that participants listed an average of 2.4 family members, which is twice the number of family relationships (1.2) that participants described as being close and confiding. And when one compares the average number of professionals and friends in the network, with the average number of “close and confiding” relationships that participants describe having with professionals and friends, we realize that not all of these relationships are experienced as “close”. That there are varying degrees of intimacy in a person’s social sphere, is a well-documented feature of all human social networks (Crotty & Kulys, 1985; Granovetter, 1973; Post, 1962). What is worth noting, is that participants’ social network “numbers” are likely to be an over-estimate of the number of relationships which are perceived as sources of intimacy and positive emotional support. This has important ramifications, both for the interpretation of this study’s findings and also for our interpretation of past and future social network research. We now turn to a discussion of the analytic findings.

The Relationship between Network Size and Life Satisfaction

Recall that the total number of people in the social network was not correlated with life satisfaction after controlling for gender and level of symptomatology. This contrasts with studies that have found a positive relationship between network size and positive affect, improved socio-emotional functioning, and other quality of life variables (Barrera, 1986; Nelson et al., 1992; Gottlieb & Coppard, 1987; Morin & Seidman, 1986). For example, some researchers have found that individuals with psychiatric disabilities who describe larger social networks, are more likely to experience positive feelings than those with smaller networks. Our quantitative findings are, however, consistent with those studies which have not found relationships between total network size and well-

being variables or where results have been inconsistent (Felton & Shinn, 1992, Virley O'Connor, 2000). The results of this study cast doubt on the presence of a simple relationship between objective features of the network and life satisfaction, and they remind us that the factors influencing type of relationship (when it *is* observed) are inconsistent and have yet to be adequately explained or understood.

The likelihood that some or many network members provide little to nothing in the way of positive social transactions, or that many so-called “friendships” lack intimacy or even basic trust, may help to explain the absence of a positive relationship between network size and life satisfaction. It is possible that participants with larger social networks are more likely to be in contact with people who are hurtful, untrustworthy, even predatory. People with histories of severe mental illness are known to be at higher risk of exploitation and victimization (Ash, Galletly, Haynes & Braben, 2003; Stuart & Arboleda-Florez, 2000). They may be more vulnerable because of cognitive impairments, impaired judgement and an inability to accurately read social cues. Recent research has also confirmed that homeless people are at increased risk for victimization (Evans & Forsyth, 2004; Felix, 2004; Stewart, Steiman & Cauce, 2004). The combination of street life and severe mental illness may be especially dangerous, and it is likely that for some of our participants the potential benefits of a larger social network have been eroded or entirely negated by the presence of abusive or exploitative individuals.

As noted in the literature review, there is a growing awareness of the ways in which dysfunctional relationships can profoundly impair individuals, with contemporary researchers becoming more aware of the need to differentiate between the beneficial and the distressing aspects of relationships (Coyle & Downey, 1991; Dakof & Taylor, 1990; Rosenfield & Wenzel, 1997; Snow & Kline, 1995) The results of this study confirm that the presence of an objectively larger social network does not necessarily translate into

positive well-being outcomes. Thus, it cannot be taken for granted that the presence of “friends”, relatives, or even spouses will necessarily be of benefit, and in some cases, these people may cause harm. Although the word “friend” has positive connotations, it may be used somewhat indiscriminately by some people, especially those who are lonely and desperate for social contact. At times, the qualitative comments remind us that the presence of what are commonly assumed to be close supportive relationships (a spouse for example) does not necessarily confer increased levels of social support or improved life satisfaction. For example, one participant said; “My husband and I can be in the same room but I feel like I’m not there. I’d like to feel like he notices me.”

When we consider the quantitative and qualitative results together, we can conclude that there are a number of participants who feel that many of their interpersonal relationships are in some way, “inadequate”. They may have sporadic contact with some family members, or they may know a few people they can occasionally have coffee with, but their friendships and their relationships with family members are by no means as rewarding or “healthy” as they would like. A number of participants described conflict in their relationships, and many experience hostility or exploitation from the people they look to for support. Others described their sense of being rejected and criticized by family, friends, and society in general, so it is not surprising that a simple positive relationship between network size and life satisfaction does not exist for members of this population. We will now explore this in further detail.

After controlling for gender and symptomatology, participants who had more friends were not more satisfied with their lives. In fact, there was actually a significant *negative* relationship between the number of friends in the network and life satisfaction, which calls to mind qualitative comments about the presence of what could be described as unsupportive or “unhealthy” friendships. Some of the non-familial relationships described by participants do come across as being abusive or exploitive in nature. As one

participant put it; “I’d like (my friends) to stop bothering me for booze all the time. They bother me for money and booze all the time and don’t return the favour... Some people just come over to my place to drink”. A number of participants described a history of victimization, others spoke of not trusting people and of being hesitant to make new friends, and a small group spoke of wanting to break ties with individuals that they felt were parasitic or hurtful.

Some participants felt that they were incompatible with many or even *most* of the people in their network, and a number of participants described their networks as consisting largely of people whose only commonality is a past history of mental illness, street living, or substance use. Participants also expressed a desire for relationships with non-devalued, “normal” or healthy people: “I’d like to start on a clean slate... try to find new friends and keep the good ones.” And; “I want to be with more positive people not with people who have no path...” Finally, some appear to have limited contact with current friends, thus decreasing the probability of actually receiving much in the way of practical and emotionally-supportive transactions. This is in line with research demonstrating weak social ties within this population and a trend towards generally limited interpersonal contact with existent friends, family and acquaintances (Billings & Moos, 1984; Leaf et al., 1984).

Similarly, participants who listed more family members in their social networks did not tend to report higher levels of life satisfaction. The wording of the Nelson et al. (1994) social network measure may have influenced the relationship between the number of family members and life satisfaction given that participants were asked to list the family members they had been in contact with in the previous six months. Although participants may not have listed totally estranged family members, it is likely that their relationships with some of these “important” family members would have been strained and contact may have been infrequent. Indeed, a number of participants describe

qualitatively their desire for more contact with family members. Recall also that participants were asked to list family members they considered “important”. Like the word “friend”, “important” is a vague and somewhat loaded term. There are societal norms that dictate to us who should be deemed important. For example, most cultures probably consider mothers to be “important” relatives. Participants may also have felt obligated to include siblings and their own children as well, regardless of the quality of these family relationships. The simple inclusion of a family member’s initials on our list does not mean that this is experienced as a positive relationship.

In support of this interpretation, many participants wished to make changes in their relationships with family members, and some described at length their family trouble and strife. Some described longstanding “communication breakdowns”, relationships that they felt were paternalistic or imbalanced and they often felt misunderstood and alienated from family members. As one participant stated: “I’d like us to get along and for them to be willing to understand about bipolar disorder, and how sometimes I drink alcohol because of my illness. I’m not a bad person... just a sick person, and it hurts. I understand that it’s difficult for them. I’m open to a real relationship... it would be really wonderful.”

The qualitative data suggest that a number of participants appear to be experiencing their family relationships as especially dysfunctional or distressing, and they expressed feelings of despair, bitterness and anger: “I’d like to put them (family members) out of their misery, then put myself out of my misery. I’d like to, but I won’t. It’s not up to me... they have to take their own lives. There is nothing I can do.” While many participants were hopeful about the possibility of repairing their damaged family relationships, more than a few appeared to have “given up” on their families or they were extremely guarded and skeptical about the possibility of ever healing the deep wounds of which they spoke. Among many, there was a sense of hopelessness and resignation with

respect to their family relations, not generally present in descriptions of non-familial relationships. These results bring to mind research involving the families of people with severe mental illness, some of which has found evidence of unresolved family conflict, poor communication and dissatisfaction among many members. As noted by some researchers, the potential benefits of having access to a family network may at times be outweighed by factors such as family dysfunction, family conflict, communication barriers and limited understanding of psychiatric issues (Dyck, Hendryx, Short, Voss & William, 2002; Mueser, Drake & Bond, 1997).

The Role of Close Confidantes

It is likely that the number of close confidantes (assessed by the Cutrona & Russell measure) comes closest to capturing the number of “healthy”, “positive”, or “secure attachment bonds” present in participants’ lives. As noted earlier, when participants are asked to list the number of people they “feel at ease with and can talk to about personal matters” they cannot reflexively cite a predetermined list of names. Instead, they need to sort through and evaluate their interpersonal relationships. This requires a series of cognitive steps. First, they must scan a mental list of *all* the people that they know (including friends, family members, and, importantly, professionals). Then they must decide who, among those people, they (a) feel close to and (b) can confide in. Thus, it is likely that they will choose to list only those with whom they have some sort of trusting and intimate bond. Although no relationship is totally immune to conflict or strife, one would assume that having more close confidantes in one’s life would be of direct benefit. Individuals who have been treating participants badly should be less likely to be included in this category. Conversely, “close confidantes” may be less likely to cause strife, grief, and general dissatisfaction, which should translate into higher life satisfaction scores.

Not surprisingly, the number of close confidantes cited by participants was strongly related to satisfaction with friendships and to perceived social support. And people with more close confidantes also tend to be more satisfied with their family relationships. But when one looks at the relationship between the number of close confidantes and life satisfaction, the results are difficult to interpret. In this case, a positive correlation verging on significance does exist. It appears then, that the number of “close confidantes” may be a variable which occupies a kind of “grey area” between the objective and the subjective. However, when one controls for the effects gender and symptomatology, the number of close confidantes does not predict life satisfaction.

The Relationship between the Subjective Network Variables and Life Satisfaction

The relationships between satisfaction with (family and non-family) relationships, perceived social support and life satisfaction were also explored in the study. As expected, all three of the subjective social network variables were strongly inter-correlated. For example, participants who were more satisfied with their family relationships and their social relations, perceived themselves as having higher levels of social support. And those who were more satisfied with their family relations tended also to be more satisfied with their social relations. All three subjective social support variables were also positively correlated with Life Satisfaction.

As a block, the subjective variables added substantially to the prediction of life satisfaction after controlling for the influence of gender and symptomatology. When looked at individually, it is the satisfaction with family relations variable which stands out in terms of its ability to predict overall life satisfaction. As we have seen, there is a growing body of research among the general population which suggests that the presence of strained or dysfunctional relationships is of greater significance than the potential positive benefits of satisfactory relationships. The fact that satisfaction with family

relations is most important with respect to the prediction of life satisfaction can be interpreted in light of the research that suggests a disproportionately harmful impact of interpersonal conflict and negativity within families with respect to the well-being of those family members with severe mental illness (Downs & Fox, 1993; Lefley & Johnson, 2002; see Mueser, Drake & Bond, 1997). One of the notable trends in the qualitative narratives, is that the comments about negative family relationships tended to be more emotionally loaded than the descriptions of unsatisfactory non-familial relationships. In line with the recommendations of previous researchers (Coyne & Downey, 1991), we may need to re-conceptualize this as being a relationship between *decreased* satisfaction with relationships and *lower* life satisfaction scores. Thus, in the case of our findings; increased *dissatisfaction* with family relationships is linked to greater overall unhappiness.

The Relationship between Objective Network Features, Subjective Experience and Life Satisfaction

To summarize, although total network size does not appear to predict life satisfaction, it *is* positively correlated with participants' perceived level of social support. In turn, perceived social support is positively correlated with life satisfaction, although it loses some of its predictive ability when gender and symptomatology are controlled for. It is possible that perceived social support is mediating the relationship between total network size and life satisfaction. In other words, the presence of more people in the social network is related to life satisfaction when participants' perceive themselves as having adequate levels of social support stemming from "satisfactory" or "supportive" relationships. Some researchers have suggested the possibility of a mediating relationship of this sort (Barrera, 1986; Cohen & Wills, 1985; Hall & Nelson, 1996).

Participants who listed more friends were generally more satisfied with their

social relations *and* they reported higher levels of perceived social support. But as we have seen, those with more friends were not more satisfied with their lives overall. This begs the question; what is being captured by the Satisfaction with Social Relations Scale and by the Perceived Social Support Scale, but not by the Satisfaction With Life Scale? A careful look at the wording of the scales may provide some clues. The Satisfaction with Social Relations Scale asks people how they feel about *the things they do with other people* and how they feel about *the amount of time they spend with other people*. Participants who listed more friends may spend more time with other people and they may also have more opportunities to do things with other people, resulting in higher scores on this scale. However, the Satisfaction with Social Relations Scale's questions may be less likely to capture the negative influence of relationships. Thus, the conflict or negative social transactions typical of certain "friendships" may dampen overall life satisfaction ratings, but this negativity may not be captured to the same extent by our satisfaction with social relations scale.

A similar bias may exist with the Perceived Social Support scale. The wording of this scale's questions may ensure that participants with more friends will "automatically" achieve higher scores, in spite of the presence of some highly dysfunctional friendships. The experience of negative social transactions may translate into decreased life satisfaction overall, while the participant may still feel subjectively supported by many of the people in their life. If items such as "some of my friends treat me very badly" or "lately, I have been having some serious disagreements and arguments with some of my friends" had been included, the correlation between perceived social support and the number of friends is likely to have been weaker.

The absence of an objective definition of "friend" in the Nelson et al. measure is worth discussing further at this point. Recall that many participants have experienced episodes of drug use, housing instability and poverty. They have also had a

disproportionate amount of contact with other mentally ill people. The sub-cultural norms and expectations of friendship for many of our participants are likely to be quite different than those of non-disabled individuals. In other words, people with severe psychiatric issues may have different ideas about how a “friend” should act, and they may be far more tolerant of what others might see as rudeness, belittling and other types of negative social transactions. Our qualitative data suggest that some of our participants may have been tolerating unsatisfying, abusive or exploitative friendships rather than face total isolation. Research confirms that many individuals with psychiatric disabilities have difficulty establishing and maintaining interpersonal relationships, possibly due to atypical social skills or behaviours and/or the stigma associated with mental illness (McKnight, 1995; Turner & Marino, 1994; Wolfensberger, 1992). Thus, it is not surprising that some are reluctant to end friendships despite being mistreated.

The Relationship between Social Network Variables and Community Adaptation

The results of our quantitative analyses did not find a relationship between social network size and community adaptation. Also, participants who were more satisfied with their social relationships were not rated as having higher levels of community adaptation, nor does there appear to be any relationship between satisfaction with family relationships and community adaptation. In fact, this outcome variable was significantly correlated with only the control variables, gender and level of symptomatology; with women and less symptomatic individuals sharing higher levels of community adaptation.

It makes intuitive sense that participants who are ascribed higher community adaptation ratings tend to present with lower levels of symptomatology. But it is somewhat puzzling that higher levels of community adaptation are not related to larger social networks, given that previous studies *have* found evidence of a relationship between network size and adaptive functioning. For example, some researchers have

found that psychiatric patients with very sparse social networks have worse outcomes on adaptive functioning measures and that they experience earlier psychotic relapse. They have suggested that having more “intimate and supportive” personal relationships may be associated with better rehabilitation outcomes (Tessler & Manderscheid, 1982; Thornicroft & Breakey, 1991). Other researchers have pointed out that the presence of at least *some* supportive social network members is theoretically necessary so that people can have a point of access to the kinds of functional and adaptive assistance they require (Lin & Westcott, 1987).

Previous research has also found evidence of a relationship between social network size and social competence. For example, in a study of clients with psychiatric diagnoses living in the community, scores on an adapted version of the Social Skills Schedule more strongly predicted the size of participants’ overall social network than any of the other variables studied (Denoff & Pilkonis, 1987). In light of this, the absence of a relationship between social network size and community adaptation is especially surprising given that four of the 17 items on the community ability scale that we used (the Multnomah Community Ability Scale; MCAS) relate to the social competence domain. These questions specifically tap social effectiveness, social acceptability, and even social network size.

One thing to bear in mind is that the MCAS is a worker-rated measure and it is possible that workers may not have been accurate when asked for an estimate of social network size. There is some research evidence in support of this possibility, and some researchers and theorists believe that estimates by family members and outside observers tend to misrepresent the true size of this population’s social networks (Crotty & Kulys, 1985). Another possibility is that there exists a subgroup of well-adapted participants with very sparse networks. This could skew the results, obscuring any relationship that may be present. Anecdotal reports from interviewers suggest that there is such a sub-

group of individuals who could be described as “high functioning yet socially isolated”. They may present with relatively well developed life skills, they are not abusing drugs; they take care of themselves and they are able to manage their finances. However, despite these apparent strengths, workers believed them to have extremely sparse networks. As a result, these participants would have been rated at the milder end of the symptom scale, and they would have received higher community adaptation ratings.

Conversely, interviewers described anecdotally a subgroup of participants who were functioning quite poorly across a number of adaptive domains. These were participants who had higher levels of symptomatology; some had substance abuse issues; many had only recently been living in shelters or on the streets and many had difficulty managing their money or maintaining adequate standards of hygiene. All of these factors would have resulted in lower community adaptation ratings. In spite of this, workers believed that many of them had objectively larger social networks. In the case of many street-involved participants, having a larger social network may be a by-product of street and/or drug culture (referred to by some mental health workers as “street family”). It is easy to see how this type of social network could actually be linked to poorer community adaptation ratings.

In addition, even if they consciously practice a non-judgemental attitude it is likely that most mental health workers will be rating their clients from an educated, middle class perspective. As a result, workers’ estimates of the “social effectiveness” or the “social acceptability” of participants may actually have relatively little to do with participants’ ability to build and maintain a network. Source of income and financial solvency, access to drugs, a secure subsidized room and even basic “exploitability” may all be important social determinants for a street-involved individual. In summary, it is possible that the MCAS falls short in its sensitivity to the objective features of participants’ social networks. It is also possible that the objective features of participants’

social networks are simply not related to any of the domains assessed by the community adaptation scale.

The Role of Gender

Exploratory analyses in the study examined gender differences in the relationships between the subjective social network variables and the well-being variables. The correlation between satisfaction with social relations and perceived social support is stronger for men than it is for women. Conversely, the correlation between satisfaction with social relations and overall life satisfaction is stronger for women than it is for men. This result brings to mind previous research findings that women with psychiatric symptoms experience a higher level of psychological distress than do men, as a consequence of their social involvement (Hall & Nelson, 1996). Others have found that women with severe mental illness have more people (especially other women) in their networks and that they are more likely to report both supportive and unsupportive social transactions than are men (Barrera & Ainley, 1983).

A series of regression analyses were also conducted to clarify the relationship between gender and the subjective social network variables. After controlling for total network size and symptomatology (recall that in our sample, women had larger networks overall and they tended to be rated as having milder symptomatology), gender does not predict satisfaction with friendships, nor is it useful as a predictor of perceived social support. However, after controlling for their milder symptomatology and the fact that they list more family members in their social networks, women are significantly more dissatisfied with their family relationships than are men.

These results can be interpreted in the context of research involving the general population, as well as research specific to individuals with psychiatric disabilities. It has been demonstrated that women in the general population are more likely than men to seek

support (Schumaker & Hill, 1991) and also that they are more likely to receive support than men (Belle, 1987). Women report higher levels of perceived support (Sarason, Sarason, Hacker & Basham, 1985) and women suffer more psychological distress related to social involvement (Belle, 1982; Kessler & McLeod). Researchers have also demonstrated that women with a history of severe mental illness are more likely to experience increased negative affect mediated by their more frequent experiences of negative social interaction, and also that they place a higher value on community involvement and are less concerned with self-reliance (Barrera & Ainlay, 1983). It appears that among our participants, women may be experiencing their families as more stressful, conflicted and/or unsupportive than are men. In line with previous research, these unsatisfying family ties, are having a disproportionate impact on our female participants' overall life satisfaction. Thus, for some of our women, their larger kinship networks do represent something of a "double-edged sword".

Is Social Network Building Antithetical to Normalization Principles?

A number of key findings merit further discussion. The first is that demographically, participants in this study comprise an extremely marginalized group. Recent research confirms that housing variables are highly pertinent when looking at the social networks of this population (Nelson, Hall & Walsh-Bowers, 1998; Nelson & Smith-Fowler, 1987; Stuart & Arboleda-Florez, 2000). For our participants, poverty and housing-related issues cannot be ignored as key factors affecting their objective social networks, their well-being and their subjective social experiences.

As expected, the social networks of participants are much smaller than the social networks of the general population, in line with most surveys of the severely mentally ill population (Becker et al., 1997; Erikson, Beiser, Iacono, Fleming & Lin, 1989; Moxley, 1988; Rosenfield & Wenzel, 1997). In addition, some participants appear to be

profoundly isolated; five had networks consisting of a single person, 15 percent of participants described none of their relationships as “close and confiding” and an additional 14 percent reported having only one close and confiding relationship in their life.

I would urge readers to contemplate what it might be like to be estranged from all or many of one’s family members or to experience many of one’s family relations as strained. Or what it would be like to have only one or two friendships, likely with people who are struggling with poverty, housing difficulties and mental illness. Imagine what it might be like to have more professionals in one’s social network than non-professionals, or to know that the only people that one trusts or feels close to, are in fact paid to provide support. These types of situations are typical for many of the participants in this study.

The finding that on average, participants have more professionals in their networks than family members or friends, confirms what other research has shown (Grusky et al., 1990; Mercier, 1994; Rosenfield & Wenzel, 1997). It also confirms anecdotal reports from the “front lines” of community mental health. Many of the people with psychiatric disabilities, who are supposedly “integrated” into the community, essentially have “prosthetic” social networks. Sixteen percent of our participants reported that professionals were the only people with whom they felt at ease, and the only people they could talk to about personal matters. Incredibly, some of the research assistants described experiences where participants had listed *them* (the interviewer) among their few close confidantes! This, despite having met the research assistant only a few times, during interviews that were spaced out over at least six months, and despite having been told that theirs was a non-therapeutic, research relationship that would end at the completion of the study. Thus, it appears that a subgroup of individuals does exist who rely exclusively on formal relationships for emotional intimacy. They are highly isolated and lonely, and they have few (or no) people that they can trust and confide in. Some are

so marginalized that the only people they feel a sense of intimacy with are strangers who have shown an interest in them. This is striking, and also quite sad, but it can be interpreted in the context of research and theoretical articles which have examined the role of service providers in the lives of these types of individuals (Caplan, 1974; Pilisuk, 1982).

The Role of Interpersonal Relationships: Does Quality Trump Quantity?

The quantitative results suggest that simply counting the numbers of people in the network gives us little in the way of useful information with respect to well-being outcomes. What appears to have a more tangible effect on well-being is participants' satisfaction with their relationships, and possibly, the number of intimate, trusted relationships. An important direction for future researchers will be to explore and better delineate this particular relationship.

Some researchers and mental health advocates have begun to frame the current status of unemployment, substandard housing and social exclusion experienced by people with severe mental illness, as human rights issues (Aubry, 2003; Carling, 1995; Lehman, 1999; McKnight, 1995). Although our quantitative results suggest that network size is not directly related to well-being, the qualitative results suggest that participants are aware that their social networks are unusually small, they feel bothered by this and many would like to remedy the situation in some way. A number wanted to re-establish relationships with estranged family members and others wanted to meet new people and establish more friendships, but many felt that they lacked the practical skills necessary to accomplish these goals. Our participants know that it is not "normal" to be as isolated as many of them are, and they believe that establishing a social network of supportive friends would be a step towards improved mental health and social inclusion or "normality". One participant summed it up beautifully: "I would like to have a few stable

relationships... a network... like you see on T.V.” These types of comments are not consistent with the myth of the “deliberate antisocial loner”.

Even amongst those who qualitatively described themselves as “hermits”, “loners” or “antisocial by nature” there was often a clear desire for more social contact. For example, one participant said: “I suppose I would like to have more people in my life, more friends... I get along well with my landlord and the people on my floor. I’d like to be less of a hermit”. Some participants wanted more relationships in general and then elaborated on the quality of the social ties they would like to establish. One participant stated: “I’d like to know more people, because my social life is very limited. And I’ve never really had a best friend. I think every girl should have a best friend.” Finally, four participants did mention that they would like to have more relationships with professionals and/or more contact with their existing service providers.

Many participants did express a desire for more friends and particularly, more relationships with non-devalued or “normal” individuals. One would assume that service providers can be seen as having a more “valued” social role, and they may represent what a “normal” friend might look like to some participants. However, it is a stretch to conceptualize a social network peppered with mental health service providers as being consistent with the tenets of normalization (Virley O’Connor, 2000; Wolfensberger, 2000). And although participants are expressing a desire for larger, more normal social networks, is it possible that it is not just researchers who are assuming that “more (and “normal” or non-devalued) must be better” when it comes to relationships? Perhaps participants are also buying into a fallacy; expecting that simply enlarging their social networks or establishing relationships with “normal” people, will lead to happiness.

The adverse impact of dysfunctional relationships must be revisited at this point. Both the quantitative and qualitative results lend support to observations of other researchers, that negative interpersonal transactions are disproportionately harmful

(Coyne & DeLongis, 1986; Coyne & Downey, 1991; Rosenfield & Wenzel, 1997). It may be that many of the interpersonal relationships within this population are *at best* relatively non-supportive yet harmless; at worst, dysfunctional, toxic, even abusive. Most of us can probably call to mind a few friends and family members who seem to “take more than they give”. However, “mentally healthy” individuals probably have enough in the way of balanced and reciprocal relationships to provide a kind of “protection” or “buffer” against the more parasitic ones. It is also possible that members of the general population are better at recognizing the signs of dysfunction and exploitation, and they may be better able to set limits and assert themselves (in comparison to people who are experiencing homelessness and/or psychiatric symptomatology) when they suspect that they are being treated poorly (Felix, 2004; Tyler et al, 2004).

Given their devalued social roles, many of our participants probably face a “burdened” choice; either live in isolation or endure less than ideal relationships. It is therefore not surprising that our study confirms the existence of networks that are often, to a large extent comprised of family relationships, many of which are described as strained and dysfunctional. Nor does it come as a surprise that some participants described a loose network of “street buddies” or “drug buddies” and that these types of networks do not necessarily confer an adaptive advantage or an improved sense of well-being.

Social Networks: Perception and Reality

It makes intuitive sense to conceptualize the “close confidantes” variable as one which has both objective and subjective qualities. We have seen that having more people in the network is not necessarily of benefit because it potentially exposes individuals to negative interpersonal transactions. However, having more close confidantes should in theory, be of direct and measurable benefit. Why this particular variable does not offer

more in the way of predictive ability is somewhat puzzling. Perhaps we must interpret it in the context of our participants' environments. Recall that they have little or no disposable income and they have very limited opportunities for leisure, school, work and other socially-valued activities. A restricted lifestyle of this sort may in effect, prevent participants from experiencing the benefits of close confidantes. Thus, participants may feel that they have some close confidantes; however they can't do things with them, or they can't access them when needed. Environmental features related to homelessness and poverty may be placing limits on the quality and types of interpersonal relationships possible. Pragmatic barriers may also be constraining the accessibility of practical support from those close relationships that do exist. Finally, it is possible that the key deficits in these individuals' lives (with respect to well-being and life satisfaction) are the absence of practical and financial support. For our participants, the presence of a few close confidantes may not be able to compensate for the stresses generated by extreme poverty and homelessness.

Another key finding was that satisfaction with family relationships is more important than satisfaction with friends and also more important than overall perceived social support in predicting life satisfaction. Qualitatively, participants did seem to feel more strongly about their poor family relations than their relationships with unrelated individuals. They were more likely to make comments about family relationships that were jaded, bitter, and pessimistic. In addition, participants were more likely to express disgust, hostility, or anger towards family members than towards unrelated individuals. The results of this study do suggest that we need to "turn the concept of social support on its head" (Coyne & Downey, 1995); in other words, to think more carefully about the impact of interpersonal dissatisfaction and dysfunction on *decreased* overall well-being, perhaps paying special attention to the role of family relationships.

Along these lines, participants believed that they had more control over making positive changes in their non-familial relationships than in their family relationships. They were more hopeful when talking about the possibility of establishing a few new “healthy” relationships with “normal” people, or asserting themselves with the friends who are causing them grief. In addition, their concrete strategies for doing so tended to be more specific. For example, they could take up a new hobby or rekindle an old one, they could improve their social skills or they could clean up their appearance; “If I took more care of myself then I would probably be more acceptable.”

The absence of a relationship between objective social network features and community adaptation was surprising, given that some research suggests that the ability to behave in a more socially normative fashion, and the ability to maintain a higher level of overall functioning across various adaptive domains, is related to having both an objectively larger social network, and to higher levels of *perceived* social support (Estroff et al., 1994; Kessler et al., 1985; Mitchell, 1982; Tessler & Manderscheid, 1982;). It is possible that our community adaptation measure was not sensitive enough for the purposes of our study. Our findings *are* supported to some extent by the vocational rehabilitation literature. For example, participation in supported employment programs by people with severe and persistent mental illness does not appear to generate crossover effects in terms of improved life quality, life satisfaction, or social network growth. Is it reasonable to expect that the existence of larger social networks and even greater satisfaction with one’s relationships, will translate “magically” into improvements in other adaptive domains? Perhaps the concept of community *integration* would have proven to be a more useful outcome variable. Qualitatively, a number of participants described feeling alienated; as if they are living on the fringes of society. They do not feel accepted or included in mainstream society and this bothers them. As one participant put it: “I’d like to get more involved with people... feel part of the human race.”

Future Research Directions

Previous research studies have distinguished between the social network features typical of people with schizophrenia and those typical of individuals with a history of depression (Billings & Moos, 1984; Estroff et al., 1994; Mueller, 1980). There is also evidence that diagnosis and overall level of psychopathology are related to both *received* social support (as measured by reported support transactions) and *perceived* social support. For example, individuals who generally present with more severe symptoms and also those with a history of psychotic breaks as opposed to major depressive episodes, report lower levels of received social support (Denoff & Pilkonis, 1987). We chose not to use diagnosis as a research variable because it was not ascertained through an objective psychodiagnostic interview. However, it would have been very interesting to compare the social network differences that accompany major depressive disorder, with those that are seen among people with schizophrenia. It would also be interesting to examine the social network ramifications of various personality disorders.

The satisfaction with family relations scale, the satisfaction with non-family relations scale and also the perceived social support scale were all difficult to interpret because they may not have been sensitive enough to the presence of unsupportive or harmful social ties and negative transactions. Method variance may also be an issue, given that all of the subjective measures used a single source and were similar in format. As well, the small size of most social networks (range restriction) may have influenced the regression results, and missing data was handled by listwise deletion. Future researchers may wish to consider alternative missing data procedures such as multiple imputation or means estimation.

A considerable drawback was the absence of a clearly defined “satisfaction with professional relations” variable. It had been wrongly assumed that the “satisfaction with non-family relations” scale would serve to capture participants’ satisfaction with both

their formal and their informal contacts. Unfortunately, the wording of this measure did not necessarily convey to participants that they could include their relationships with formal supports when responding to this scale's questions. Future researchers need to be more specific when asking about relationships with service providers. Although a large percentage of participants did describe having close, confiding, trusting relationships with their mental health workers, given the absence of a specific subjective ratings variable for this domain, it was difficult to clarify the links between the presence of formal supports, participants' perception of these relationships and well-being.

More research is needed to clarify how the experience of having relationships with paid, "formal" supports (especially long-term relationships that are perceived by clients as close and confiding) translates into improvements in life quality and adaptive functioning. It may be the case that the social support provided by formal sources, as opposed to that provided by family members and friends, really does contribute differentially to the well-being of people with severe and persistent mental illness. Although we touched on this in our exploratory analyses, our findings were inconclusive and future studies would do well to investigate if and how the perception of social support, and its attendant benefits, is influenced by its source. In other words, does perceived social support and overall life satisfaction vary greatly according to whether or not it is stemming from a formal or an informal member of the social network? Are so-called "natural" social networks necessarily better? Or can the benefits of close and confiding relationships be conferred through the use of paid "surrogate" relationships. This has proven a very difficult question to answer. Although researchers and mental health professionals are careful to distinguish between service providers and "friends", clients may be less apt to make this type of a categorical distinction. Quantitative and qualitative research is needed to determine how people with psychiatric disabilities *really do* perceive their relationships with formal contacts as compared to their relationships with friends and relatives.

During debriefing and feedback sessions with interviewers, it became clear that interviewers were not consistently reminding participants that they could include relationships with professionals when discussing the changes they would like to make in their non-family relationships. Despite these limitations, some participants did comment on their relationships with workers. One participant said: “I’d like more people like ‘Richard’ (case manager) in my life to talk to. I’d like to see Richard more often and talk... If they took him away from me, I don’t know what I’d do.” Furthermore, when reading the transcribed qualitative data, it was at times difficult to ascertain whether participants were commenting on their relationships with professionals or friends. Interviewers on the whole failed to clarify this issue (in fact, many did not adequately probe or get participants to talk in greater depth about *any* of their interpersonal relations).

To summarize, much of the social support research thus far has focussed on the role of the informal branch of the network. Our quantitative results indicate that subjective factors such as perceived social support and satisfaction or dissatisfaction with relationships have more bearing on life satisfaction than objective network features such as size and composition. But to some extent, this is in conflict with the desires of participants, who would simply like to have more friends and importantly, more friendships with *normal* people. Many mental health professionals seem relatively “normal” (certainly they are less devalued than the average homeless or mentally ill person). But is it “normal” for a substantial portion of one’s relations to be receiving payment in exchange for the time they spend with you? This study failed to clarify the extent to which well-being is linked to having objectively more relationships with non-devalued people, even if these *are* paid (or volunteer for that matter) relationships. It also failed to clarify to what extent extremely isolated people with severe and persistent mental illness would accept or welcome having “paid” and or “formalized volunteer”

relationships as comprising the main body of their social networks. Along these lines, we could explore how different outcome variables (such as the aforementioned community integration construct) are related to the receipt of formal support services.

Our quantitative and qualitative data suggest that there may be clusters of distinct social network subtypes within our research population. This would be worth exploring further at some point. One subgroup consists of the most isolated participants. They have two or fewer network members in total and one or both of these are likely to be mental health professionals. There also appears to be a group of individuals whose social networks could be described as “medium sized” in comparison to others with psychiatric histories, but small in comparison to the general population. Many of these social ties involve sporadic contact, and a number could probably be described as dysfunctional. They tend to be either family ties or they may be based on shared psychiatric history rather than genuine compatibility. There also appears to be a subgroup of individuals with relatively large networks, but the qualitative data suggests that many of their received social transactions are negative and these networks are often a result of shared street history and/or drug culture. Finally, there may be a group of participants who have positive, emotionally fulfilling relationships with their social network members.

Researchers could also examine in more depth the impact of interpersonal conflict, dysfunction and negative social transactions on the well-being of people with severe and persistent mental illness. Related to this, a closer look at the short-term and long-term effects of immersion in street culture and/or in drug culture for members of this population will provide a great deal in the way of useful information. Unfortunately, ongoing North American (and global) trends in the redistribution of wealth are likely to contribute to ongoing homelessness and housing instability among individuals with psychiatric disabilities (Cohen, 2002; Desai & Rosenheck, 2004; Lazare, 1996). In response to this, we will need to continue our investigations into the intersection between

their exposure to inadequate housing, shelter living and/or street culture and their interpersonal relationships.

Along these lines, future social network researchers are urged to be more aware of environmental features such as the type of housing lived in (group homes, supportive housing, or private houses/apartments, etc.), architecture and features of urban infrastructure, legislation (such as anti-panhandling laws) and other community-environmental variables that have been demonstrated to affect the well-being of people with psychiatric disabilities (Kruzich, 1985; Nelson, Hall & Walsh-bowers, 1998; Nelson & Smith-Fowler, 1987; Segal & Aviram, 1978). Some participants indicated that environmental features are extremely important when it comes to their relationships with friends and family. One participant couldn't have visitors over for a meal because she had no table. One was embarrassed by the sparseness and the disrepair of their surroundings, and another didn't feel comfortable visiting her boyfriend because he lived in a rooming house. In future, qualitative exploration of these factors could give this disempowered group more decision-making power with respect to the types of housing and other services that they receive. It is worth noting the recent use of "activist ethnographic methodologies" among homeless populations. This has been an exciting research trend in the field of Anthropology (Gans, 1994; Hopper, 1990; Lanham, 1993; Lyon-Callo, 1998; Watson, 1993), and these ethnographic tools could prove quite useful to community psychologists, allowing us to both answer questions and address pressing social issues at the same time.

Finally, due to its cross-sectional design this study did not contribute to our understanding of the ways that social networks change in response to stressors such as homelessness, psychiatric hospitalization and relapse. And network instability may be magnified or accelerated for those individuals who have also been immersed in street culture. Future researchers will need to attend more to the rather unique cyclical nature of

mental illness and to the likelihood that (especially among those who have been homeless) social networks have decayed and reconstituted to a far greater extent than one would see in the general population (Lipton, Cohen, Fischer & Katz, 1981). Cross-sectional descriptions do not capture social network instability; they only capture the network as it stands.

For this reason, many researchers are now asserting that longitudinal studies are the only way that we can truly understand the social networks of this population, and they have urged their colleagues to look at structural social network features (such as sparseness and over-representation of family members and professionals) within the larger environmental contexts and life patterns of individuals, rather than accepting them at face value (Donnellyl, McGilloway, mays & Knapp, 1996; Lin & Ensel, 1989; Rabinowitz, 2005). In their review of the stress, coping, and social support literature, Coyne and Downey (1991) asked that in future, researchers shift from “studies such as those which look at network *size* as it relates to outcome”, to ones that “undertake the more difficult task of identifying the complex and dynamic links among persons experiencing recurrent periods of disruption and dysfunction in their lives, how they lead their lives, and the *nature* of their social contexts” (pp. 53).

Taking into account the complex issues we have discussed so far and the key findings of our study, research which examines any possible mediating relationships between specific social network features, participants’ subjective experiences of their social support and any number of well-being variables, will continue to be pertinent. More studies are needed if we are to further our understanding of the way that family, friends and service providers contribute differentially to well-being, and come to a consensus on what constitutes an efficient, value-added or optimal spectrum of support.

With respect to the relationship between social networks and well-being for this particular population, our study appears to have glimpsed the tips of many icebergs (or

possibly; many tips of the *same* iceberg). Future researchers would do well to examine the interactions between participants' beliefs about their relationships, and their actual receipt (and provision) of measurable positive social transactions from these relationships. And while we must bear in mind that simply enlarging an individual's network will likely not be of benefit unless the new relationships are perceived as supportive, future researchers must not lose sight of the fact that there are some individuals who are socially isolated to such a degree, that they are denied any point of access to the types of practical support and assistance they require. For these people, the expansion of the network to two or three helpful members (from one or zero) might make a significant difference in life quality. Other researchers have made similar interpretations and predictions (Brugha, 1995; Lin & Westcott, 1987; Surtees, 1980).

With respect to the role of close confidantes, the attachment literature may be especially relevant. While a review of this literature is beyond the scope of this discussion, future research could explore a wide variety of social network and social support issues from an attachment perspective. As well, the presence of close, confiding relationships may come close to what we poetically describe as "Love", a concept that is also well beyond the scope of this discussion.

It would be interesting to apply the locus of control literature to some of this research study's findings, given the theme of helplessness and hopelessness that emerged out of the qualitative data. Many participants felt ineffectual in the face of their compromised family relationships, whereas they felt better equipped to make changes in some of their friendships. They also discussed the possibility of making new friends and ending friendships that were unsatisfying. Obviously, making new family members (or re-connecting with long-estranged family members) and ending family relationships are more difficult prospects. Along these lines, participants were more likely to assert that family dysfunction resulted from the personality traits of their relatives, rather from any

of their own tendencies or actions. “Empowerment”, boundaries and assertiveness are also foremost on the minds of a number of participants (both in their family and non-familial relationships) and these factors could be more clearly researched and delineated by future researchers.

Clinical and Policy Implications

Given that so many participants would like to expand their social networks and many would like to establish friendships with “normal” people; attempts should be made at developing *effective* social skills enhancement programs. And (if it is possible to run them in a way that respects and validates participants) social network building initiatives such as buddy programs may be worthwhile. Also, given that there appear to be a large number of individuals whose sole intimate relationships are with their mental health workers, blanket policies about the phasing-out of professional support after a specified time period may not be the best practice. At worst, these types of policies can be described as cruel, and they may even be harmful. Although participants may wish for a group of friends “like you see on T.V.”, we must be honest and acknowledge that there are quite a few individuals who will never achieve a social network like those portrayed on popular sitcoms. For this to happen, radical (and highly unlikely) changes will need to occur in Western society, whereby members of the general population overcome their deeply ingrained prejudices, and develop lasting, genuine friendships with people who have very severe psychiatric histories and symptoms. The establishment, maintenance and *theoretical acceptance* of longer-term, “prosthetic” networks may be of great benefit to the most isolated and socially marginalized members of this population.

The fact that participants want to have relationships with non-devalued people resonates strongly with the social role valorization perspective (Lemay, 1995; Virley-O’Connor, 2000; Wolfensberger, 1992, 2000). Importantly, the qualitative narratives

confirm what many in this field have known for some time... that people with severe and persistent mental illness have many of the same hopes and aspirations as the rest of society, and that they can be quite articulate in voicing their stories and making their needs and desires known. At some point, mental health program developers and policy makers will have to start listening to the consumers of their services. There has been much lip service to this end, but in the opinion of this researcher, very little actual inclusion of psychiatric survivors in policy making, program evaluation, and program development thus far. Policies about the role of mental health service providers in the lives of the most isolated may also need to be more flexible, more individualized and more responsive to differences in individuals' present life circumstances, their social histories, and their environments.

Our research suggests that dissatisfaction with social relationships may have a disproportionate impact on well-being. This has important implications for psychosocial rehabilitation programming, as well as for individual psychotherapeutic treatment. Program developers will need to pay attention to the role of relationship stressors and conflict, and may need to focus not only on network building and social skills enhancement, but also on assertiveness training, conflict resolution training and mediation.

The large number of participants who described qualitatively their negative experiences with family members, as well as the strong negative impact of dissatisfaction with family relationships on life satisfaction, suggests that the present-day trend towards intervention at the level of the family system is warranted and in fact should be stepped up in future (Aubry, Farrell, Virley O'Connor & Kerr, 2000; Lefley & Johnson, 2002; Jonsson & Malm, 2002). When talking about strained family relationships, participants tended to express vague ideas about "improving" communication, but for the most part they lacked concrete strategies as to how this might be accomplished. The role of family

members in the lives of the mentally ill has been, and is likely to remain a politically contentious issue. Families of people with severe mental illness (in particular schizophrenia) are a powerful lobby group and in the past they have reacted strongly to any studies which they have often interpreted as “mother-blaming” or “family-blaming”. While most have been open to family psycho-educational programs, some may be less open to the prospect of family systems therapy or conflict resolution.

Mental health theorists have suggested that psychiatric hospitalizations may have an adverse effect on the social network, and there is some evidence of a relationship between increases in symptoms, psychiatric hospitalizations and social network atrophy (Thornicroft & Breakey, 1991). In addition to the atrophy that has been observed in social networks post-hospitalization, we have seen that there are changes in composition (Billings & Moos, 1984; Barrera, 1986). Although this study did not look specifically at longitudinal data, it is easy to imagine how a negative feedback cycle sparked by just one or two psychiatric hospitalizations could lead to dramatic shifts in both the size and the *composition* of the social network. For example, individuals may be forced to rely upon family members to meet their support needs post-hospitalization, because peer relationships may have deteriorated or ended due to lack of maintenance or stigma. One cannot under-estimate the stigmatizing effect of a stay in a psychiatric unit and anyone who has worked on an inpatient ward knows that friends do not tend to visit very often.

And it appears that a forced over-reliance on relatives can have important ramifications for the families of people with severe and persistent mental illness (Hatfield & Lefley, 1987; Mueser, Drake & Bond, 1997). Some researchers have suggested that the absence of friends in the network tends to place families under great strain which can lead to family conflict and, in turn, higher rates of relapse (Bebbington & Kuipers, 1994; Grusky et al., 1984; Mueser, Gigerich & Rosenthal, 1993; Pomeroy & Trainor, 1991). At the same time, the presence of a compromised social network may force individuals to

rely on more tolerant and informed social workers, mental health nurses, or other mental health professionals who respond to increased symptoms and difficulties in adaptive functioning. Thus, it may be that service providers are turned to for much needed friendship, intimacy and social support as friends move on with their lives or avoid contact due to fear and poor understanding of mental illness (Becker et al., 1997; Grusky et al., 1990; Lewis & Hugi, 1987).

In response to these findings, some researchers have called for caution not only in the interpretation of social network data, but also when using social support research to inform mental health programming and policy. The possible links between hospitalizations and social networks have important mental health policy and treatment implications, and mental health researchers and advocates have commented extensively on the need for psychiatrists and psychologists to consider the effects of repeated hospitalizations when they are planning treatment. There may still be those who yearn for the days of easier involuntary hospitalizations, and there may also be those who would consider a return to a large institution model. Certainly these sentiments were being voiced openly in the not-so-distant past (Gralnick, 1987; Warsow, 1986). It is important to consider the social network ramifications of any proposed “solutions” to the “the problem of homelessness” among people with psychiatric symptoms.

Finally, the importance of family-systems and community psychology perspectives are supported by these findings. Mental health workers are urged to ask more about social networks during assessment and intake interviews, and throughout the course of intervention. They are urged to work with patients holistically, always bearing in mind their environmental and social contexts. It is possible that some workers do not even realize that they are, in fact, a certain client’s *only* friend. An awareness of this might well change not only the ways that they interact with clients, it may also change the way they perceive their relationships with clients.

Conclusion

Although some participants appeared to be satisfied with their social lives, many were not. A number of the individuals who participated in our study described extremely small social networks, and some rely upon mental health professionals to meet their social support needs and their needs for intimacy and interpersonal connection. Many of our participants described feeling isolated; they feel lonely, misunderstood, sometimes feared; and they do not feel valued or accepted by their families or by society in general. Many feel as if they are living on the fringes of society, as if they are on the outside looking in. Some are aware of the links between their psychiatric symptoms and their social networks and they are bothered by their tendency to self-isolate. They described a strong desire to overcome their “trust issues” and they want to establish boundaries in some of their less satisfying relationships.

The findings of this study give evidence that the people who used to live out of sight, separated by the bricks and vast green lawns of last century’s institutions, are not yet living among us; many are in fact, still hidden behind walls. But they are painfully aware of their outsider status and they feel “like aliens”. For people with psychiatric disabilities, a “normal” life includes what they see as a normal social network; a group of friends who are supportive and fun, a family that is accepting and relatively free of conflict, access to people who enjoy their company, perhaps even *love* them. They want family and friends who would be more likely to provide practical and emotional support than to exploit or berate. This is the type of life that many of our participants aspire to. Sadly, there are many among us who will continue to live their lives in a state of profound isolation and loneliness. For these individuals, mental health workers may represent the only people who do not harm them or fear them.... The only people who will listen to them, talk to them, appreciate them and understand them.

References

- Aberg-Wistedt, A., Cressell, T. & Lidberg, Y. (1995). Two year outcome of team-based intensive case management for patients with schizophrenia. *Psychiatric Services*, 46, 1263-1266.
- Anderson, T., Goldberg, J. & Harrow, M. (2004). A review of medication side effects and treatment adherence in bipolar disorder. *Primary Psychiatry*, 11(9), 48-54.
- Andrews, G., Gavin, N., Begley, S. & Brodie, D. (2003). Assisting friendships, combating loneliness: Users' views on a "befriending" scheme. *Ageing & Society*, 23(3), 349-362.
- Andrews, F.M., & Withey, S.B. (1976) *Social indicators of well-being: Americans' perceptions of life quality*. New York: Plenum.
- Anthony, W.A. & Blanch, A. (1989). Supported employment for persons who are psychiatrically disabled: An historical and conceptual perspective. *Psychosocial Rehabilitation Journal*, 11, 5-23.
- Aro, H.M. (1994) Risk and protective factors in depression: A developmental perspective. *Acta Psychiatrica Scandinavica*. 89 (377, Suppl), 59-64.
- Ash, D., Galletly, C., Haynes, J. & Braben, P. (2003). Violence, self-harm, victimisation and homelessness in patients admitted to an acute inpatient unit in South Australia. *International Journal of Social Psychiatry*, 49(2), 112-118.
- Aubry, T. & Myner, J. (1996). Community integration and quality of life: A comparison of persons with psychiatric disabilities in housing programs and community residents who are neighbours. *Canadian Journal of Community Mental Health*, 15(2). 5-20.
- Aviram, U. (1990). Community care of the seriously mentally ill: Continuing problems and current issues. *Community Mental Health Journal*, 26, 69-88.
- Baker, F., Jodrey, D. & Intagliata, J.(1992). Social support and quality of life of community support clients. *Community Mental Health Journal*, 28(5), 397-411.

- Barnes, J. (1954). Class and communities in a Norwegian island parish. *Human Relations* 7, 3-46.
- Barnes, J. (1972). *Social networks*. Reading, MA: Addison-Wesley.
- Barrera, M. (1986) Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, 14, 413-445.
- Barrera, M. & Ainlay, S.A. (1983). The structure of social support: A conceptual and empirical Analysis. *Journal of Community Psychology*, 11, 133-143.
- Bassuk, E. & Gerson, S. (1980). Chronic crisis patients: A discrete clinical group. *American Journal of Psychiatry*, 137, 1511-1517.
- Bassuk, E.L. (1980). The impact of deinstitutionalization on mental health services. *Scientific American*, 238, 46-53.
- Baxter, E. & Hopper, K. (1984). Trouble on the streets: The mentally disabled homeless poor. In J. Talbott (Ed.). *The chronic mental patient*, (pp. 49-62). New York: Grune and Stratton.
- Baxter, E. & Hopper, K. (1982). *Private lives/ public spaces: Homeless adults on the streets of New York City*. New York: Community Service Society.
- Becker, T., Thornicroft, G., Leese, M., McCrone, P., Johnson, S., Albert, M., & Turner, D. (1997) Social networks and service use among representative cases of psychosis in South London. *British Journal of Psychiatry*, 171, 15-19.
- Beels, C.C. (1981). Social support and schizophrenia. *Schizophrenia Bulletin*, 7, 58-72.
- Billings, A.G. & Moos, R.H. (1984). Coping, stress, and social resources among adults with unipolar depression. *Journal of Personality and Social Psychology*, 46, 877-891.
- Bocker, F. (1984). Social integration and contact with people in the normal social environment during treatment in a psychiatric hospital. *European Archives of Psychiatry and Neurological Sciences*. 234(4), 250-257.
- Bowlby, G. (1969). *Attachment*. New York: Basic Books.

- Bowlby, J. (1973). Affectionate bonds: Their nature and origin. In R.S. Weiss (Ed.) *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.
- Broadhead, W.E., Kaplan, B.H., James, S.A., Wagner, E.H., Scoenbach, V.J., Grimson, R., Heyden, S., Tibblin, G., & Gehlbach, S.H. (1983). The epidemiologic evidence for a relationship between social support and health. *American Journal of Epidemiology*, 117, 521-537.
- Brady, J. (2000). An intervention to test the effects of social skills training, with and without computer problem-solving activities, on level of functioning, stress, coping and psychiatric symptomatology. *Dissertation Abstracts International*, 61, 187.
- Browne, S. Roe, M., Lane, A., Gervin, M., Morris, M., Kinsella, A., et al. (1996). Quality of life in schizophrenia: Relationship to sociodemographic factors, symptomatology and tardive dyskinesia. *Acta Psychiatrica Scandinavia*, 94, 118-124.
- Brugha, T.S. (Ed.). (1995). *Social support and psychiatric disorder*. Cambridge: Cambridge University Press.
- Caplan, G. (1974). *Support systems and community mental health*. New York: Behavioural Publications.
- Caplan, P. (1989). *Don't blame mother: Mending the mother-daughter Relationship*. Harper & Row, N.Y.
- Carling, P.J. (1992). Community integration of people with psychiatric disabilities: Emerging trends. In J.W. Jacobson, S.N. Burchard, & P.J. Carling (Eds.), *Community living for people with developmental and psychiatric disabilities* (pp. 20-32). Baltimore, MD: Johns Hopkins University Press.
- Carling, P.J. (1995). *Return to community: Building support systems for people with psychiatric disabilities*. The Guildford Press, NY.
- Cassel, J. (1976). The contribution of the social environment to host resistance. *American Journal of Epidemiology*, 104, 107-123.

- Cassel, J. (1974). An epidemiological perspective of psychosocial factors in disease etiology. *American Journal of Public Health, 64*, 1040-1043.
- Cobb, S. (1976). Social support as moderator of life stress. *Psychosomatic Medicine, 38*, 300-314.
- Cohen, S. & Wills, T.A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310-357.
- Cohen, S. (1988). Psychosocial models of the role of social support in the etiology of physical disease. *Health Psychology, 7*, 269-297.
- Cohen, C. (2002). Poverty, social problems and serious mental illness. *Psychiatric Services, 53*(7), 899-900.
- Cohen, C. & Sokolovsky, J (1978). Schizophrenia and social networks: Ex-patients in the inner city. *Schizophrenia Bulletin, 14*, 546-560.
- Coulton, C.J., Holland, T.P. & Fitch, V. (1984). A typology of social environments in community care homes. *Hospital and Community Psychiatry, 36*(4), 373-377.
- Coyne, J.C. & Downey, G. (1991). Social factors and psychopathology: Stress, social support, and coping processes. *Annual Review of Psychology, 42*, 401-425.
- Craven, S. & Wellman, B. (1973). The network city. *Sociological Inquiry, 43*(3), 57-88.
- Cresswell, C., Kuipers, L. & Power, M. (1992). Social networks and support in long-term psychiatric patients. *Psychological Medicine, 22*, 1019-1026.
- Crotty, P. & Kulys, R. (1985). Social support networks: The views of schizophrenic clients and their significant others. *Social Work, 30*, 301-309.
- Cutler, D.L., Tatum, E. & Shore, J.H. (1987). A comparison of schizophrenic patients in different community support treatment approaches. *Community Mental Health Journal, 23*(2), 103-113.
- Cutrona, C.E. & Russell, D.W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In Sarason, I.G. & Pierce, G.R.(Eds.), *Social support: An interactional view*, (pp. 319-366). New York: Wiley.

- Cutrona, C.E., Cole, V., Colangelo, N., Assouline, S.G. & Russell, D.W. (1994). Perceived parental social support and academic achievement: An attachment theory perspective. *Journal of Personality and Social Psychology*, 66(2), 369-378.
- Cutrona, C., Russell, D. & Rose, J. (1986). Social support and adaptation to stress by the elderly. *Journal of Psychology and Aging*, 1(1), 47-54.
- Dakof, G.A. & Taylor, S.E. (1990). Victims' perceptions of social support: What is helpful from whom? *Journal of Personality and Social Psychology*, 58, 80-89.
- Davidson, L., Shahar, G., Stayner, D.A., Chinman, M., Rakfeldt, J., Tebes, J. (2004). Supported socialization for people with psychiatric disabilities: Lessons from a randomized controlled trial. *Journal of Community Psychology*, 32(4), 453-477.
- Denoff, M.S. & Pilkonis, P.A. (1987). The social network of the schizophrenic: Patient and residual determinants. *Journal of Community Psychology*, 15, 228-244.
- Desai, M. & Rosenheck, R. (2004). HIV testing and receipt of test results among homeless persons with serious mental illness. *American Journal of Psychiatry*, 161(12), 2287-2294.
- Dewa, C.S., Durbin, J., Wasylenki, D., Ochocka, J., Eastabrook, S., Boydell, K.M., & Goering, P. (2002). Considering a multi-site study? How to take the leap and have a soft landing. *Journal of Community Psychology*, 30(1), 1-15.
- Diener, E., Emmons, R.A., Larsen, R.J. & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49(1), 71-75.
- Dion, G.L. & Anthony, W.A. (1987). Research in psychiatric rehabilitation: A review of experimental and quasi-experimental studies. *Rehabilitation Counselling Bulletin*, 30, 177-203.
- Dixon, L., Goldberg, R., Lehman, A. & McNary, S. (2001). The impact of health status on work, symptoms and functional outcomes in severe mental illness. *Journal of Nervous and Mental Disease*, 189(1), 17-23.
- Donnelly, M., McGilloway, S., Mays, N. & Knapp, M. (1996). Leaving hospital: One and two-year outcomes of long-stay psychiatric patients discharged to the community. *Journal of Mental Health (U.K.)*, 5(3), 245-255.

- Downs, M. & Fox, J. (1993). Social environments of adult homes. *Community Mental Health Journal*, 25(1), 15-23.
- Dyck, D., Hendryx, m, Short, R. & Voss, W. (2002). Service use among patients with schizophrenia in psychoeducational multiple-family group treatment. *Psychiatric Services*, 53(6), 749-754.
- Earls, M. & Nelson, G. (1988). The relationship between long-term psychiatric clients' psychological well-being and their perceptions of housing and social support. *American Journal of Community Psychology*, 16(2), 279-293.
- Emmons, R.A. & Diener, E. (1985). Personality correlates of subjective well-being. *Personality and Social Psychology Bulletin*, 11(1), 89-97.
- Estroff, S.E. (1981). Psychiatric de-institutionalization: A socio-cultural analysis. *Journal of Social Issues*, 37(3), 116-129.
- Estroff, S.E., Zimmer, C., Lachicotte, W.S. & Benoit, J. (1994). The influence of social networks and social support on violence by persons with serious mental illness. *Hospital and Community Psychiatry*, 45(7), 669-679.
- Evans, R. & Forsyth, C. (2004). Risk factors, endurance of victimisation and survival strategies: The impact of the structural location of men and women on their experiences within homeless milieus. *Sociological Spectrum*, 24(4), 479-505.
- Evert, H., Harvey, C., Trauer, T. & Herrman, H. (2003). The relationship between social networks and occupational and self-care functioning in people with psychosis. *Social Psychiatry and Psychiatric Epidemiology*, 38(4), 180-188.
- Faccincani, C., Mignolli, G. & Platt, S. (1990) Service utilisation, social support and psychiatric status in a cohort of patients with schizophrenic psychoses: A seven year follow-up study. *Schizophrenia Research*, 3, 139-146. 1990
- Felix, A. (2004). Life without walls: Violence and trauma among the homeless. In *Analysts in the trenches: Streets, schools, war zones* (pp. 24-43). Hillsdale, NJ. Analytic Press.
- Felton, B.J. & Shinn, M. (1992). Social integration and social support: Moving "social support" beyond the individual level. *Journal of Community Psych*, 20, 103-115.

- Fiore, J., Becker, J., Coppell, D.A.B. (1983). Social network interactions: A buffer or a stress? *American Journal of Community Psychology*, 11, 423-440.
- Gans, H. (1994). *Diagnosing America: Anthropology and Public Engagement*. Ann Arbor: University of Michigan Press.
- Gore, S. (1981). Stress-buffering functions of social supports: An appraisal and clarification of research models. In B.S. Dohrenwen (Ed.), *Stressful life events and their contexts* (pp. 202-222). New York: Prodist Publications.
- Gottlieb, B.H. (1980). Social networks and social support in the design of preventative interventions. In Faculty of Social Work (Ed.), *Helping networks and the welfare state: A Symposium*; Toronto: University of Toronto Press.
- Gottlieb, B.H. (1983). *Social support strategies: Guidelines for mental health practice*. Beverly Hills: Sage.
- Gottlieb, B.H. & Coppard, A. E. (1987). Using social network therapy to create support systems for the chronically mentally disabled. *Canadian Journal of Community Mental Health*, 6, 117-131.
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1360-1380.
- Grusky, O., Tierney, K., Manderscheid, R.W. & Grusky, D.B. (1985). Social bonding and community adjustment of chronically mentally ill adults. *Journal of Health and Social Behaviour*, 26, 49-63.
- Hall, G.B. & Nelson, G. (1996). Social networks, social support, personal empowerment, and the adaptation of psychiatric consumers/survivors: Path analytic models. *Social Sciences and Medicine*, 43, 1743-1754.
- Hammer, M. (1981). Social supports, social networks and schizophrenia. *Schizophrenia Bulletin*, 7(1), 4(4).
- Hartog, J., Audy, J. & Cohen, Y. (1981). *The anatomy of loneliness*. New York: International Universities Press.
- Hatfield, A.B. & Lefley, H.P.(1987). *Families of the mentally ill: Coping and adaptation*. New York: Guilford Press.

- Heller, K. (1979). The effects of social support: Prevention and treatment implications. In A. Goldstein & F. Kanfer (Eds.), *Maximizing treatment gains: Transfer enhancement in psychotherapy*. New York: Academic Press.
- Henderson, S. Byrne, D., Scott, R. & Steele, G. (1978). Social bonds in the epidemiology of neurosis: A preliminary communication. *British Journal of Psychiatry*, 132, 463-466.
- Holmes-Eber, P. & Riger, S. (1990). Hospitalization and the composition of mental patients' social networks. *Schizophrenia Bulletin*, 16(1), 157-164.
- Hopper, K. (1990). Culture to culture: Ethnography and cultural studies as critical intervention. In b. hooks (Ed.), *Yearning: Race, gender and cultural politics*. Boston: South End Press.
- Horvath, A.O. & Greenberg, L.S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, 36(2), 223-233.
- House, J.S., & Kahn, R.L. (1985). Measures and concepts of social support. In S. Cohen & S. Syme (Eds.), *Social support and health* (pp. 83-108). Orlando, FL: Academic.
- House, J.S., Umberson, D. & Landis, K.R. (1988). Structures and processes of social support. *Annual Reviews in Sociology*, 14, 293-318.
- Jonsson, J. & Malm, U. (2002). The social network resource group in Sweden: A major ingredient for recovery in severe mental illness. In H. Lefely & D. Johnson (Eds.), *Family interventions in mental illness: International perspectives*. Westport, CT: Praeger.
- Kanter, J., Lamb, H.R. & Loeper, C. (1987). Expressed emotion in families: A critical review. *Hospital and Community Psychiatry*, 38, 374-380.
- Kennedy, C. (1989). Community integration and well-being: Toward the goals of community care. *Journal of Social Issues*, 45(3), 65-77.
- Kessler, R.C., Price, R.H. & Wortman, C.B. (1985). Social factors in psychopathology: Stress, social support, and coping processes. *Annual Reviews of Psychology*, 36, 531-572.

- Klein, A. (1997). The significance of peer social support in intensive case management. *Dissertation Abstracts International*, 57(7-A), 3253.
- Lazare, E. (1996). *Out of reach: Can America pay the rent?* Washington DC; Center on Budget and Policy Priorities.
- Leaf, P.J., Weissman, M.M., Myers, J.K., Tischler, G.L. & Holzer, C.E. (1984). Social factors related to psychiatric disorder: The Yale epidemiological catchment area study. *Social Psychology*, 19, 53-61.
- Lehman, A.F., Possidente, S. & Hawker, F. (1986). The quality of life of chronic patients in a state hospital and in community residences. *Hospital and Community Psychiatry*, 37, 901-907.
- Lehman, A.F. (1983). The effects of psychiatric symptoms on quality of life assessments among the chronic mentally ill. *Evaluation and Program Planning*, 6, 143-151.
- Lehman, A.F. (1988). A quality of life interview for the chronically mentally ill. *Evaluation and Program Planning*, 11, 51-62.
- Lehman, A.F., Ward, N.C. & Linn, L.S. (1982). Chronic mental patients: The quality of life issue. *American Journal of Psychiatry*, 139, 1271-1276.
- Lehman, A.F., Slaughter, J.G. & Myers, C.P. (1991). Quality of life in alternative residential settings. *Psychiatric Quarterly*, 62, 35-49.
- Levin, S. & Brekke, J.S. (1993). Factors related to integrating persons with chronic mental illness into a peer social milieu. *Community Mental Health Journal*, 29(1), 25-34.
- Liem, R. & Liem, J. (1978). Social class and mental illness reconsidered: The role of economic stress and social support. *Journal of Health and Social Behaviour*, 19(2), 176-188.
- Lipton, F.R., Cohen, C.I., Fischer & Katz, S.E. (1981). Schizophrenia: A network crisis. *Schizophrenia Bulletin*, 7, 144-151.
- Lyon-Callo, V. (1998). Constraining responses to homelessness: An ethnographic exploration of the impact of funding concerns on resistance. *Human Organization*, Spring, 1998.

- MacDonald, E.M., Pica, S., McDonald, S., Hayes, R.L. & Baglioni, A.J. (1998). Stress and coping in early psychosis: Role of symptoms, self efficacy, and social support in coping with stress. *British Journal of Psychiatry*, 172(33), 122-127.
- Maton, K.I. (1987). Patterns and psychological correlates of material support within a religious setting: The bidirectional support hypothesis. *American Journal of Community Psychology*, 15, 185-207.
- McKnight, J. (1995). *Careless society: Community and its counterfeits*. Basic Books, New York, NY.
- McNary, S.W., Lehman, A.F. & Ogrady, K.E. (1997). Measuring subjective life satisfaction in persons with severe and persistent mental illness: A measurement quality and structural model analysis. *Psychological Assessment*, 9(4), 503-507.
- Mechanic, D. & Rochefort, D.A. (1990). Deinstitutionalization: An appraisal of reform. *Annual Review of Sociology*, 16, 301-327.
- Meeuwesen, L., Hortulanus, R. & Machielse, A. (2001). Social contacts and social isolation: A typology. *Netherlands' Journal of Social Sciences*. 37(2), 132-154.
- Mercier, C. (1994). Improving the quality of life of people with severe mental disorders. *Social Indicators Research*, 33, 165-192.
- Mir, S. & Taylor, D. (1998). Sexual adverse effects with new antidepressants. *Psychiatric Bulletin*, 22(7). 438-441.
- Mitchell, R.E. (1982). Social networks and psychiatric clients: The personal and environmental context. *American Journal of Community Psychology*, 10, 387-401.
- Mitchell, R.E. & Trickett, E.J. (1980). Task force report: Social networks as mediators of social support. *Community Mental Health Journal*, 16(1), 27-44.
- Mojtabai, R. (2005). Perceived reasons for loss of housing and continued homelessness among persons with mental illness. *Psychiatric Services*, 56(2), 172-178.
- Morales, A., Heaton, J. & Condra, M. (1994). The Pharmacology of Impotence. In A. Bennet, (Ed.), *Impotence: Diagnosis and management of erectile dysfunction*. Philadelphia: Saunders.

- Morin, R.C. & Seidman, E.A. (1986). A social network approach to the revolving door patient. *Schizophrenia Bulletin*, 12, 262-273.
- Mueller, D. (1980). Social networks: A promising direction for research on the relationship of the social environment to psychiatric disorder. *Social Science and Medicine*, 14, 147-161.
- Mueser, K.T., Drake, R.E., & Bond, G.R. (1997). Recent advances in psychiatric rehabilitation for patients with severe mental illness. *Harvard Review of Psychiatry*, 5, 123-137.
- Munves, P., Trimboli, F., & North, A. (1983). A study of repeat visits to a psychiatric emergency room. *Hospital and Community Psychiatry*, 34, 634-638.
- Nagle, S., Cook, J. & Polatajko, H. (2002). I'm doing as much as I can: Occupational choices of persons with a severe and persistent mental illness. *Journal of Occupational Science*, 9(2), 72-81.
- Nelson, G., Hall, B., Squire, D. & Walsh-Bowers, R.T. (1992). Social network transactions of psychiatric patients. *Social Sciences and Medicine*, 34, 433-445.
- Nelson, G., Hall, G.B. & Walsh-Bowers, R. (1998). The relationship between housing characteristics, emotional well-being and the personal empowerment of psychiatric consumer/survivors. *Community Mental Health Journal*, 34, 57-69.
- Ontario Ministry of Health (1988). *Building community supports for people: A plan for mental health in Ontario*. Toronto: Author.
- Parks, S.H., & Pilisuk, M. (1984). Personal support systems of former mental patients residing in board-and-care facilities. *Journal of Community Psychology*, 12, 230-244.
- Pattison, E.M., DeFrancisco, D., Wood, P., Frazier, H. & Crowder, J. (1975). A psychosocial kinship model for family therapy. *American Journal of Psychiatry*, 132, 1246-1251.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment*, 5, 164-172.

- Perese, E.F. (1997) Unmet needs of persons with chronic mental illnesses: Relationship to their adaptation to community living. *Issues in Mental Health Nursing*, 18, 19-34.
- Pomeroy, E., Cook, B. & Benjafield, J. (1992). Perceived social support in three residential contexts. *Canadian Journal of Community Mental Health*, 11, 101-107.
- Post, F. (1962). The social orbit of psychiatric patients. *Journal of Mental Science*, 108, 759-771.
- Rabinowitz, J., Haim, R., Reichenberg, A., Weiser, M., Kaplan, Z., Davidson, M. & Hafner, H. (2005). Association between functioning in adolescence prior to first admission for schizophrenia and affective disorders and patterns of hospitalization thereafter. *Schizophrenia Research*, 73(2-3), 185-191.
- Rappaport, J. (1997). *Community psychology: Values, research and action*. Toronto: Holt, Reinhart and Winston.
- Rappaport, R. (1996). *Making room: The Economics of homelessness*. Cambridge: Cambridge University Press.
- Reissman, F. (1990). Restructuring help. A human services paradigm for the 1990's. *American Journal of Community Psychology*, 18, 221-230.
- Rollins, A. (2004). Predictors of interpersonal relationships in the workplace for people with severe mental illness. *Dissertation Abstracts International: Section B: The Sciences and Engineering*. 64(9-B), 4633.
- Rook, K.S. (1987). The negative side of social interaction: Impact on psychological well-being. *Journal of Personality and Social Psychology*, 45, 1097-1108.
- Rook, K.S. (1987). Reciprocity of social exchange and social satisfaction among older women. *Journal of Personality and Social Psychology*, 52, 145-154.
- Rosenberg, K., Bleiberg, K., Koscis, J. & Gross, C. (2003). A survey for sexual side effects among severely mentally ill patients taking psychotropic medications: Impact on compliance. *Journal of Sex & Marital Therapy*, 29(4). 280-296.

- Rosenfield, S. & Wenzel, S. (1997). Social networks and chronic mental illness: A test of four perspectives. *Social problems*, 44, 200-216.
- Seeman, M.C. (1988). The family and schizophrenia. *Humane Medicine*, 4, 96-100.
- Segal, S.P. & Holschuh, J. (1991). Effects of sheltered care environments and resident characteristics on the development of social networks. *Hospital and Community Psychiatry*, 42(11), 1125-1131.
- Shepherd, G., Muijen, Dean, R. & Cooney, M. (1996). Residential care in hospital and in the community-quality of care and quality of life. *British Journal of Psychiatry*, 168, 448-456.
- Shinn, M., Lehman, S. & Wong, N.W. (1984). Social interaction and social support. *Journal of Social Issues*, 40, 55-76.
- Shuster, T.L., Kessler, R.C. & Aseltine, R.H. (1990). Supportive interactions, negative interactions, and depressed mood. *American Journal of Community Psychology*, 18, 423-428.
- Snow, D. & Kline, M. (1995). Preventive interventions in the workplace to reduce negative psychiatric consequences of work and family stress. In: *Does stress cause psychiatric illness? Progress in psychiatry*. APA. Washington, DC.
- Sokolovsky, J., Cohen, C., Berger, D. & Geiger, J. (1978). Personal networks of ex-mental patients in a Manhattan SRO hotel. *Human Organization*, 37(1), 5-15.
- Stewart, A., Steiman, M., Cauce, A. & Cochran, B. (2004). Victimization and post-traumatic stress disorder among homeless adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 43(3), 325-331.
- Stuart, H. & Arboleda-Florez, J. (2000). Homeless shelter users in the post-deinstitutionalization era. *Canadian Journal of Psychiatry*, 45(1), 55-62.
- Surtees, P. (1980). Social support, residual adversity and depressive outcome. *Social Psychiatry*, 15(2), 71-80,
- Taylor, R. (1995). Alienation and integration in mental health policy. *Critical Social Policy*, 14, 81-90.

- Thoits, P.A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behaviour, (extra issue)*, 53-79.
- Thornicroft & Breakey (1991). The COSTAR programme 1: Improving social networks of the long-term mentally ill. *British Journal of Psychiatry, 159*, 245-249.
- Tolsdorf, C.C. (1976). Social networks, support, and coping: An exploratory study. *Family Process, 15(4)*, 407-417.
- Tracey, T.J. & Kokotovic, A.M. (1989). Factor structure of the Working Alliance Inventory. *Psychological Assessment, 1(3)*, 207-210.
- Turner, R.J. (1981). Social support as a contingency in psychological well-being. *Journal of Health and Social Behaviour, 22*, 357-367.
- Turner, R.J. & Marino, F. (1994). Social support and social structure: A descriptive epidemiology. *Journal of Health and Social Behaviour, 35*, 193-212.
- Tyler, K. & Whitbeck, L. (2004). Risk factors for sexual victimization among male and female homeless and runaway youth. *Journal of Interpersonal Violence, 19(5)*, 503-520.
- Vaughn, C.E. & Leff, J.P. (1976). The influence of family and social factors on the course of psychiatric illness. *British Journal of Psychiatry, 129*, 125-137.
- Virley O'Connor, B. (2002). Social role valorization, social network transactions and life satisfaction for people with psychiatric disabilities. *Dissertation Abstracts International, 63(5-B)*, 2611.
- Walsh, J. & Connelly, P.R. (1996). Supportive behaviours in natural support networks of people with serious mental illness. *Health & Social Work, 21(4)*, 296-303.
- Watson, B. (1993). *Checkerboard square: Culture and resistance in a homeless community*. Boulder: Westview Press.
- Wellman, B. (1981). Applying network analysis to the study of support. In B.H. Gottlieb (Ed.), *Social networks and social support* (pp. 171-200). Beverly Hills, CA: Sage.
- Weiss, R.S. (1973). *Loneliness: The experience of emotional and social isolation*. Cambridge, MA: MIT Press.

- Weiss, R.S. (1973). Materials for a theory of social relationships. In W. Bennis & F. Steele (Eds.), *Interpersonal dynamics*. Homewood, Illinois: Dorsey.
- Wolfensberger, W. (1986). Human service policies: The rhetoric versus the reality. In L. Barton (Ed.), *Disability and dependency* (pp. 23-41). London: Falmer Press.
- Wolfensberger, W. (1998). *A brief Introduction to SRV, 3rd Edition*. Syracuse, NY. SUTI.
- Wolfensberger, W. (2000). A brief overview of social role valorization. *Mental Retardation*, 38, 105-123.

Appendix A

Brief Psychiatric Rating Scale

Appendix B
Social Support Network Measure

Appendix C

Perceived Social Support, Close Confidantes, and Frequency of Contact

“This next section is about your relationships with others. I’m going to read a series of statements, and for each, could you please tell me whether you strongly disagree (1), disagree (2), agree (3) or strongly agree (4).”

1. If something went wrong, no one would help me.
2. I have family and friends, who help me feel safe, secure and happy.
3. There is someone I trust whom I could turn to for advice if I were having problems.
4. There is no one I feel comfortable talking about problems with
5. I lack a feeling of intimacy with another person
6. There are people I can count on in an emergency
7. I provide support to my friends and/or family.
8. I have a lot of serious disagreements and arguments with my family

“Now I’m going to ask you some questions about the people you are close to”.

9. How many people do you know with whom you feel at ease and can talk to about personal matters?

Number _____

10. Among the people you just counted, how many are:

Family members _____	A spiritual leader _____
Boyfriend/girlfriend or partner _____	Friends _____
Care providers _____	Other (specify) _____

11. How many of the(se) people have also received mental health treatment? _____

12. During the past month, how often have you been in contact with any close friends?

Not at All (1) Once or Twice (2) Once a Week (3) Several Times a Week (4)

13. During the past month, how often have you been in contact with anyone in your family?

Not at All (1) Once or Twice (2) Once a Week (3) Several Times a Week (4)

Appendix D

Satisfaction with Social Relations

Ratings

- 1 - Terrible
- 2 - Unhappy
- 3 - Mostly Dissatisfied
- 4 - Mixed
- 5 - Mostly Satisfied
- 6 - Pleased
- 7 - Delighted
- 9 - No Response

“Now I’d like to ask you about other people in your life, that is, people who are not in your family”

1. Please look at the Delighted-Terrible Scale again. How do you feel about...
 - a. The things you do with other people?
 - b. The amount of time you spend with other people?
 - c. The people you see socially?

Appendix E

Satisfaction with Family Relations

Ratings

- 1 - Terrible
- 2 - Unhappy
- 3 - Mostly Dissatisfied
- 4 - Mixed
- 5 - Mostly Satisfied
- 6 - Pleased
- 7 - Delighted
- 9 - No Response

“The next few questions are about your relationships with your family”.

1. Please look at the Delighted - Terrible Scale again. How do you feel about...
 - a. The way you and your family act toward each other?
 - b. The way things are in general between you and your family?

Appendix F

Satisfaction With Life Scale

Ratings

- 1 - Strongly Disagree
- 2 - Disagree
- 3 - Slightly Disagree
- 4 - Neither Agree or Disagree
- 5 - Slightly Agree
- 6 - Agree
- 7 - Strongly Agree
- 9 - No Answer

- a. In most ways my life is close to my ideal.
- b. The conditions of my life are excellent.
- c. I am satisfied with my life.
- d. So far I have gotten the important things I want in life.
- e. If I could live my life over, I wouldn't change much.

Appendix G

Multnomah Community Abilities Scale

Appendix H
COMMUNITY SERVICES EVALUATION
INFORMED CONSENT FORM

I, _____, am interested in being part of a study on the Canadian Mental Health Association's community support services. The study is being done by Tim Aubry and his co-workers at the University of Ottawa and by the local branch of the Canadian Mental Health Association. The purpose of the study is to find out how well CMHA's community support services work.

I understand that, if I agree to be part of the study, my name will be part of a draw, or lottery. Based on that lottery, I will either begin seeing a long-term community support worker, or continue to see an outreach worker for a short time. The community support worker's job is to help me live in the community in the way that I want. I also understand that, if I agree to be part of the study, I am also agreeing to ...

- (1) be interviewed four times over two years,
- (2) let my worker be interviewed about how I'm doing and what services I use,
- (3) let the researchers see my file with the community support or outreach program,
- (4) between interviews, let the researchers contact people such as my family, friends, and other support workers to find out where I am living.

Each interview will last about one to two hours, and I can choose when and where the interview happens. There will be four interviews during the study - one at the beginning and then one at 9, 18, and 24 months after that. I will be paid \$20 after each interview is completed.

If I am part of the study, I will be asked questions about how well I'm doing in the community, my friends and family, how often I use different services, such as health clinics or other workers, or hospitals, and how satisfied I am (or am not) with the outreach or community support services.

Since some of these questions are about personal things, I understand that they might make me feel uncomfortable. If this happens, the interviewer will try to help me deal with this. I can also refuse to answer any questions, if I choose.

I also know that I can get out of the study anytime, without any penalty. If I decide to stop being in the study, I can still see my support worker. I can also refuse to let the researchers contact certain people and still be part of the study. If I decide not to be part

Appendix I

QUALITATIVE CODES - Family: Draft # 1

1. **No** - No, No response, Nothing (stand alone, i.e. this is the only thing in the box).
2. **Hopeless** statements - Statement of total despair/hopelessness. Participant indicates that the situation irreparable, includes suicidal ideation, Also, include absurd and unrealistic statements here. i.e. participant “wants a whole new family”.
3. **Desire for change expressed, but unsure how to proceed** - participant has no ideas/unclear, confused about how to proceed. i.e. feels “stuck” and doesn’t know what to do.
4. **Nostalgia statements** - participant wishes they could change something about the past.
5. **Family deceased and participant expresses regret** - regret may be about entire family, or about specific members being deceased (differentiate from # 6).
6. **Hostile statement towards entire family (living or dead)** - Statement of extreme hostility towards entire family. i.e. “I wish they were dead”, “they’re dead and I’m glad”.
7. **Hostile statement towards specific family member** - Statement of extreme hostility towards family member i.e. “I hate my brother’s guts”.
8. **Total estrangement** - Participant expresses regret about total estrangement. May be entire family or certain members (Differentiate from # 9).
9. **Statement that minimal or no contact is healthiest/sanest choice**
10. **Acknowledgement of improvement over past situation** - Participant indicates that they believe things are improving.
11. **Concern about deterioration in family relations** - Participant indicates that things are worsening and is concerned about this.
12. **Philosophical/meta-awareness of psycho-social familial issues** i.e. “worries about possibility that future children will be affected by family dysfunction.
13. **Statement that family is extremely dysfunctional or disturbed**
14. **Concern about pragmatic/situational factors** - i.e family lives too far away, legal issues, family member’s health problems, transportation difficulties, etc.
15. **Mixed feelings about family** - participant indicates mixed feelings about family/specific family member i.e. “On the one hand I love my mother, but she can be a real pain”.
16. **Indication of past abuse** a) physical b) emotional/psychological c)sexual
17. **Indication of ongoing abuse** a) physical b) emotional/psychological c)sexual
18. **Expression of pain, hurt, sadness** because of family situation

19. **Expression of embarrassment or shame** - Participant feels ashamed of current situation/past behaviour. i.e. "I'd hate for my family to see me this way".
20. **Positive family characteristics acknowledged** - participant indicates something positive about their family relations, or expresses a desire to keep things way they are i.e. "I rely on my family for support".
21. **Worried about family/specific member** - Participant feels responsible for family, wishes could help..., wishes could get help for family from outside sources
22. **Desire for general improvement of family relations/interactions** - Participant wants to improve the quality of family interactions and relationships in general. (Does not specify clearly what/how). i.e. "I wish they could just change their attitude." (Only use this in cases where response does not fit into below categories).
23. **Desire for communication changes** - Desire for improved/increased communication among family members.
24. **Desire for increased self-sufficiency** - participant feels too dependent on family, wishes for increased independence. (Note, differentiate from # 30, below).
25. **Desire for more support from family** - Participant wants more support from family.
26. **Desire for more family contact** - Participant expresses a desire for more frequent contact/ spend more time with family i.e. "I wish we could visit more often"
27. **Desire for increased intimacy** - i.e. participant wants more love, honesty, a more genuine relationship i.e. "I'd like us to get to know each other better"
28. **Desire for increased acceptance/understanding from family** - Includes a feeling that family is too judgemental, too critical, or that family feels ashamed of participant.
29. **Desire to improve overall family cohesion** - participant indicates a desire for increased harmony/increased maturity, wishes family was more stable.
30. **Family is paternalistic** - Participant expresses a desire that family was less paternalistic, less condescending, less "bossy", domineering. This can include enmeshment issues, i.e. participant wishes family was less intrusive i.e. "Wish I was free and could live life the way I want to". (Note, this is different from # 24, in that the participant clearly feels that the family is to blame because they are too intrusive).
31. **Trust issues** - Indication of mistrust towards family. Participant feels used, taken advantage of, feels that family is unreliable, indicates a hesitancy to re-engage with family because they don't trust them i.e. "I'm cautious because I worry about getting hurt again".
32. **Desire for decreased intra-familial tension/conflict** - Participant indicates that there is conflict, stress, or tension between family members and they find this aversive i.e. "I wish things weren't so tense all the time".

33. **Desire for decreased hostility from family** - participant desires that family would be less hostile towards self i.e. participant feels “targetted”, “picked on” by family/specific member.
34. **Psych Problems: family** - participant expresses regret about family/member’s a) psych. problems; b) drug/alcohol abuse.
35. **Psych Problems: self** - Participant expresses regret about self’s a) mental illness; b) drug/alcohol abuse (including its impact on family).

Appendix J

QUALITATIVE CODES - Non-Family: Draft # 1

1. **No** - “No”, No response, Nothing (stand alone, i.e. this is the only thing in the box)
2. **Expressions of discouragement/hopelessness** - i.e. participant has tried making friends but always unsuccessful.
3. **Indication of total/severe isolation and desire to change** - i.e. participant would like to have “a friend”, “some friends” (implication being they currently have none)
4. **Statement indicating that participant desires isolation/limited social contact** - i.e, they feel that staying away from others is best.
5. **Concerns/apprehension related specifically to mental illness** - i.e. a reluctance to re-establish social contacts until symptoms under control, fear that symptoms may re-appear and lead to embarrassment.
6. **Positive statements about self’s personality/social skills/interpersonal skills.**
7. **Positive statements about current/past interpersonal relationships**
8. **Acknowledgement that social situation is improving**
9. **General reminiscences/Nostalgia statements** - (ones which don’t fit other categories) This may include philosophical/existential statements (hard to place elsewhere) - i.e., a meta-awareness of how past events may have damaged friendships.
10. **Pragmatic concerns** - Which participant believes are effecting social life, i.e. lack of finances, housing concerns, transportation problems.
11. **Self-attribution statements of antisocial personality traits** - i.e. participant describes self as “shy”, “a loner”, etc.
12. **Expressions of embarrassment/shame about appearance/behaviour** - statements related to feeling socially unacceptable/aversive - i.e. participant expresses regret about poor hygiene, appearance, tattoos, etc. Worries that they might “scare people”.
13. **Expression of pain/sadness/regret due to isolation/loneliness**
14. **Expression of pain/sadness/regret due to current/past mistreatment**
15. **Trust issues** - fear of others, fear of intimacy, feels “paranoid” due to past encounters, expression of having been hurt in past (with implication that this is impacting on current socialization/friendships).
16. **Comments involving professional/formal contacts** - i.e. statements about worker, case manager, etc.
17. **Indication/description of past/current abuse** - this includes exploitation as well as physical/psychological/emotional abuse.

18. **Desire for change - vague or general statements** - (this would include statements hard to place elsewhere)
19. **Desire for less/no contact with certain network members** - i.e. participant wants to end certain friendships, see less of certain people.
20. **Desire to spend more time with others** - A desire to spend more time with other people.
21. **Desire for more people in social network** - i.e. ppt would like “more friends”
22. **Desire to establish romantic relationship** - Desire to meet a significant other, desire for sexual partner.
23. **Desire to improve/change quality of marital relationship/romantic partnership**
24. **Desire for activity change/increase** - Desire for more shared activities, desire to change the types of activities participant does with others. Desire to learn new activities, or enhance skills in present activities.
25. **Desire to improve social skills/social understanding** - concern about social skills and a desire to develop better social skills. Also, indications that participant has difficulty relating to/understanding others.
26. **Desire to improve treatment of others** - i.e. participant would like to be nicer to others, more accepting of others.
27. **Desire for increased acceptance/decreased paternalistic treatment by others** - A desire to not be judged/devalued by others, to be criticized less, to be more accepted, also include a desire to be “normal” or be treated in a non-patronizing fashion
28. **Desire for more “compatible” friendships** - i.e. wants friends closer in age, intelligence, friends with similar interests.
29. **Desire for friendships with non-devalued people** - i.e. people who are not on welfare, mentally ill, alcoholic, etc.
30. **Desire for increased intimacy (non-sexual)** - i.e., participant wants to get to know people better”, wants increased honesty in relationships. also - desire for a “close friend”, “best friend” etc.
31. **Desire for increased reciprocity in relationships** - i.e. participant wants to be able to help others
32. **Desire to repair/re-establish a past friendship/relationship**
33. **Desire to increase assertiveness** - i.e. wants to learn to establish or maintain boundaries.
34. **Desire for increased self-sufficiency** - wants to be less dependent on others.

Appendix K

QUALITATIVE CODES - Family: Overall responses

This involved the categorization of overall responses (i.e. each participant's complete/full response) into following four categories, based on desire or expectation of change.

1. No response/blank
2. **No change is desired** - "No", or any comment indicating that change is not desired. This could include a) positive statements about family - participant indicates something positive about their family relations; or that b) things are healthiest/best for client when no contact occurs. This include statements of acceptance/having "moved on".
3. **Yes, change is desired** - Indication that some change is desired. Also includes statements where participant has no ideas, or unclear/confused about how to proceed. e.g. participant feels "stuck", doesn't know what to do.
4. **Ambivalent statements** - Indication of dissatisfaction about the way things are between self and family, but does not indicate hope/desire/expectation for change)
* note* this could include statements of despair and hopelessness. For example, the participant indicates that the situation irreparable. Also, include absurd and unrealistic statements here. e.g. participant "wants a whole new family".

Appendix L

QUALITATIVE CODES - Non-Family: Overall Responses

This involved the categorization of overall responses (i.e. each participant's complete/full response) into following four categories, based on desire or expectation of change.

1. No response/blank
2. **No change is desired** - "No", or any comment indicating that change is not desired. This could include a) positive statements about relationships with others or b) participant desires/accepts isolation/enjoys very limited social contact, wants to recover/stabilize before working on resuming relationships.
3. **Yes, change is desired** - Indication that some change is desired. Also includes statements where participant has no ideas, or unclear/confused about how to proceed. e.g. feels "stuck", "lacks skills/knowledge", "doesn't know what to do". Also include here statements indicating some discouragement. e.g. client has tried making friends in past, but always unsuccessful.
4. **Ambivalent statements** - Indication of dissatisfaction about their non-familial relationships, but does not express hope/desire/expectation for change. Note; this could include statements of despair and hopelessness. For example, the participant indicates that the situation irreparable. Include absurd and unrealistic statements here. Also, include "I don't know" statements here.

Appendix M

QUALITATIVE CODES - Family: Final Draft

1. **Hostile Statements**
 - A) towards entire family - Statement of hostility towards entire family. e.g. “I wish they were dead”, or “they’re dead and I’m glad!”
 - B) towards specific family member(s) - Statement of hostility towards specific family member(s) e.g. “I hate my brother’s guts.”
2. **Estrangement: self imposed, accepted or “welcomed”** - Participant describes total or partial estrangement from family/specific members, and indicates that this is a positive thing e.g. something they have initiated/decided, or something that is welcomed/in their best interests, “healthiest”, etc.
3. **Memories, reminiscences, regrets** - Participant wishes they could change something about the past or return to a past state, misses something about past, speaks of regrets.
4. **Philosophical Statements**
 - A) Specific psycho-social/familial issues e.g. “worries about possibility that future children will be affected by family dysfunction.
 - B) General reflections i.e. “words of wisdom”, etc. This would include existential utterances about life, people, families in general.
5. **Character/personality traits - Participant** - Reflections and comments about self. e.g. self’s character, personality, likes/dislikes, behaviour patterns. Include comments about participant’s competencies abilities and skills. Include; desire to change or improve something about self.
6. **Character/personality traits - Family** - A desire to change something about family/specific member’s character, attitude, behaviour in general (but not directed at self) e.g. “wish they weren’t greedy”, wish they weren’t mean to other people, wish they had a better attitude towards life.
7. **Statements about Mental Illness**
 - A) Impact on family relations
 - B) Other, i.e. regrets, statements of fact, etc.
 - C) Family - Statements where participant describes family/member’s a) psychological (diagnosed or suspected) problems; drug/alcohol abuse.

8. **Changing Family Relations**
 - A) Improvement over past situation - Participant indicates that they believe things are improving.
 - B) Deterioration in family relations - Participant indicates that things are worsening.

9. **Intra-Family Dynamics**
 - A) Dysfunction - Intra-familial tension/conflict/hostility - Participant indicates that there is conflict, stress, or tension between family members. e.g. "I wish things weren't so tense and angry all the time". indications of intra-familial conflict/hostility. Also: statements indicating that family is disturbed or immature, etc.
* note* - this category may overlap with hostile statements (# 1), therefore only categorize here if there is an awareness of systems issues, mention of history, psychology, some degree of intellectualization/awareness of issues.
 - B) Cohesion - Desire to improve overall family cohesion - participant indicates a desire for increased closeness, harmony/increased maturity among all/some family members.

10. **Pragmatic/situational factors** - e.g. family lives too far away, legal issues, family member has health problems, transportation difficulties, etc.

11. **Mixed feelings** - participant indicates mixed feelings about family/specific family member. e.g. "On the one hand I love my mother, but she can be a real pain". * note* - this may overlap with trust issues (# 19); differentiate by determining that there is a clear indication of ambivalence, a sense of being "torn".

12. **Abuse/Mistreatment**
 - A) Indication of past abuse; 1) physical 2) emotional/psychological 3) sexual 4) exploitation
 - B) Indication of ongoing abuse; 1) physical 2) emotional/psychological 3) sexual 4) exploitation
 - C) Hostility/mistreatment from family(past or current) - participant desires that family would be less hostile towards self. Participant feels "targetted", "picked on" or otherwise mistreated by family/specific family member.

13. **Reciprocity**
 - A) Participant wishes they could offer more support to family in general.
 - B) Participant is concerned about family/specific member; specific issues. Also, participant feels responsible for family, wishes they could get help (medical, psychological, etc.) for family/specific member.

14. **Communication** - Desire for improved/increased/changed communication between self and family.

15. **Independence/Paternalism** - Participant feels too dependent on family, wishes for increased independence. Feels that family is paternalistic towards them - e.g. participant wishes family was less condescending, less “bossy”, domineering. This can include enmeshment issues; participant wishes family was less intrusive. e.g. “Wish I was free and could live life the way I want to”, “wish they would mind their own business”. Also include: participant wishes family would *trust them* (*note* differentiate from # 19, where participant indicates their own distrust of their family)

16. **Level of Practical Support from Family** - Participant wants more practical support (help, guidance, advice, material support, etc.) from family. (*note* differentiate from # 16; intimacy & # 17; acceptance/understanding). Also, indications that participant relies on family for support.

17. **Level of Contact with Family**
 - A) Total estrangement + regret - Participant describes total estrangement, and regrets this/wishes to change this. Estrangement may be from entire family or from certain members only. (*note* differentiate from #2; self-imposed or “welcomed” estrangement)
 - B) Estrangement: neutral/mixed feelings - Participant describes estrangement or participant is unclear about feelings.
 - C) Desire for more frequent contact (without indication of total estrangement) - Participant wishes they could spend more time with family/specific members e.g. “I wish we could visit more often”.
 - B) Desire for less contact/less frequent contact with family/specific members.

18. **Intimacy** - Participant wants more love, honesty, wants to “feel closer”, to have a more genuine relationship. e.g. “I’d like us to get to know each other better”.

19. **Acceptance/Understanding** - A feeling that family is too judgmental, too critical, or that family feels ashamed of participant. Also, a desire for more sympathy/emotional/psych. support from family.
20. **Embarrassment/Shame** - Participant feels ashamed of current situation/past behaviour. e.g. "I'd hate for my family to see me this way". (* note* include only statements where it appears that participant has *internalized* feelings of shame .i.e. differentiate from # 17; acceptance/understanding)
21. **Trust issues** - Indication of mistrust towards family/specific members. Participant feels that family is unreliable, indicates a hesitancy to re-engage with family because they don't trust them. e.g. "I'm cautious because I worry about getting hurt again".
22. **Positive statements** - about family/specific members.

Appendix N**QUALITATIVE CODES – Non-Family: Final Draft**

1. **Mental Health as Factor in Social Relations** - Concerns/apprehension related specifically to mental illness - e.g. a reluctance to re-establish social contacts until symptoms under control, a fear that symptoms may re-appear and lead to embarrassment.
Include; * wants to stabilize life/situational factors before trying to make friends
* wants to “resolve problems”
* wants to be normal/ healthy
2. **Statements about social skills/interpersonal skills**
 - A) Positive statements about self’s personality/social skills/interpersonal skills.
 - B) Negative statements about self’s personality/social skills/interpersonal skills, or a desire to improve social skills/social understanding. Also, indications that participant has difficulty relating to/understanding others.
 - C) Desire to improve treatment of others - e.g. participant would like to be nicer to others, more accepting of others. Note: differentiate from category # 4; skills vs. traits.
3. **Asocial personality/Social withdrawal traits** - e.g. participant describes self as “shy”, “a loner”, hermit, etc. (internalized, rather than skills). Note: Don’t include statements that reflect mental illness. (differentiate from # 1)
4. **Changes in interpersonal relations**
 - A) social relations worsening
 - B) social relations improving
5. **Philosophical Statements**
Statements about self-other relations/friendships in general. This would include existential utterances about life, people, friendship in general. e.g. musings about the importance of/meaning of friendship, “words of wisdom”, etc.
6. **Reminiscences** - statements about past, memories, reminiscences about interpersonal relationships - i.e. participant describes how past events may have damaged friendships (exclude statements related to SMI, see above). Include positive statements about past interpersonal relationships. Include, desire expressed to repair/re-establish a past friendship.

7. **Total/Severe Isolation**
 - A) Desire for change/loneliness - Include statements about feeling “lonely” or alone. Also, statements which suggest that participant has a very limited social network.
 - B) Prefers/desires isolation: participant is isolated and likes it/desires it. Doesn’t want friends, or feels that staying away from others is best.
8. **Pragmatic/Environmental concerns** - Pragmatic issues participant believes are effecting social life. e.g. lack of finances, housing concerns, transportation problems, too busy/lack of time, impoverished/devaluing surroundings or environment.
9. **Appearance/Hygiene/Acceptability** - Expressions of embarrassment/shame about appearance/behaviour. Includes statements related to *internalized* feelings of being socially unacceptable/aversive - e.g. participant expresses regret about poor hygiene, appearance, tattoos, etc. Worries that they might “scare people”.
10. **Trust issues** - fear of others, fear of intimacy, feels fearful due to past encounters, expression of having been hurt in past.
11. **Comments involving professional/formal contacts** - e.g. statements about worker, case manager, etc.
12. **Abuse/Mistreatment**
 - A) Indication of past abuse; 1) physical 2) emotional/psychological 3) sexual 4) exploitation
 - B) Indication of ongoing abuse; 1) physical 2) emotional/psychological 3) sexual 4) exploitation
 - C) Hostility/mistreatment from others(past or current) - participant desires that people would be less hostile towards self i.e. participant feels “targetted”, “picked on” by people. Feels that people are “mean”, feels otherwise mistreated.
13. **Amount of Contact**
 - A) Desire to spend more time with others
 - B) Desire for less/no contact with certain network members - e.g. participant wants to end certain friendships, wants to see less of certain people.
14. **Desire for more people in social network** - participant indicates that they would like more friends, would like to know more people, etc.

15. **Romantic relationship**
 - A) Desire to meet a significant other, desire for sexual partner.
 - B) Desire to improve/change quality of established marital relationship/romantic partnership

16. **Activities** - Desire for more shared activities, desire to change the types of activities participant does with others. Also; desire to learn new activities, or enhance skills in present activities. Belief that doing more activities/going to different places will improve social relations. Also, desire to “get out more, go out more” etc.

17. **Social Acceptance, Validation, & Respect** - A desire for decreased paternalistic treatment by others; A desire to not be judged/devalued by others, to be criticized less, to be more accepted, also include a desire to be treated as “normal” or be treated in a non-patronizing fashion. (Note: differentiate from # 9, which is intended to capture clearly internalized feelings of shame about feeling aversive/socially unacceptable).

18. **Types/Quality of Friendships**
 - A) Compatibility Issues - e.g. wants friends closer in age, intelligence, friends with similar interests.
 - B) Desires friendships with non-devalued people or “healthy” people- e.g. people who are not on welfare, mentally ill, alcoholic, etc. friends who are happier, more positive, more trustworthy, etc.

19. **Intimacy (non-sexual)/Communication** - Participant wants to feel closer, more connected to other people. e.g. Participant wants to “get to know people better”, wants increased honesty in relationships. Also - desires a “close friend”, “best friend” etc. (key here is wanting to feel closer to others). Wants better communication, more genuine relationships.

20. **Reciprocity** - Participant wants to feel that they are reciprocating in their interpersonal relationships. e.g. wants to be able to help others, give more to others, feel useful, helpful, needed, etc.

21. **Boundaries/Empowerment/Assertiveness Issues**
 - A) participant wants to learn to establish or maintain boundaries
 - B) participant wants to increase their ability to assert self, speak frankly/honestly, be assertive, etc.

22. **Self-sufficiency** - Participant wants to be less dependent on others.
23. **Positive Statements** - about others/ relationships.