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**Social Role Valorization, Social Network Transactions and Life Satisfaction
for People with Psychiatric Disabilities**

by

Barbara Virley O'Connor

A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF

REQUIREMENTS FOR THE DEGREE OF

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Abstract

Notwithstanding the similarity of Social Role Valorization (SRV) theory to the tenets of current mental health policy and practice, a limited number of studies have assessed the effectiveness of the theory as a community integration strategy for individuals with psychiatric disabilities. In a similar way, questions still remain about the success of the larger community integration movement, particularly with respect to social support and social integration. Although it is clear that social support processes are important for the adaptation of individuals with psychiatric disabilities, our knowledge of the nature of their social networks, the processes of social support within these networks, and their impact on adaptation is limited. Therefore, the goal of the current study was to test a model of the relationship between SRV theory, social network characteristics and transactions, subjective ratings of satisfaction with living situation, and overall life conditions of adults with psychiatric disabilities. In particular, the objectives were threefold: (a) to further empirical testing of SRV theory within the domain of mental health; (b) to further research on the social networks and transactions of individuals with psychiatric disabilities; and (c) to advance research on the contribution of environmental and transactional characteristics to the life satisfaction ratings of individuals with psychiatric disabilities.

Although results of the path analysis did not demonstrate a mediational model between the environmental, transactional and psychological variables, findings did show that receiving more types of positive social support was related to higher levels of life satisfaction. Conversely, the amount of negative social interaction received was inversely related to both life satisfaction and satisfaction with support received from family members. From a clinical perspective, these findings underscore the importance of considering positive and negative support transactions in

designing and implementing social support interventions.

Exploratory and descriptive results using the SRV measure mirrored previous research which found that services tend to be more successful at integrating clients physically than socially into the community. In addition, the present findings suggest that overall service quality for clients of the Mental Health Community Support Service is modest at best. Moreover, significant correlations between the SRV measure and level of functioning and gender suggest that individual characteristics may play a role in developing and/or maintaining socially valued environments. In perhaps the best test of the contribution of SRV variables to client life satisfaction, results of a post-hoc analyses showed that degree of SRV in the environment made a unique contribution to the variance of satisfaction with support received from friends, even after the effects of gender and client functioning had been controlled.

The present findings have also extended research on the social support networks and processes of individuals with severe and chronic mental illness who live in the community. In particular, estimates of the size of social networks are in keeping with past observations and demonstrate that networks for this population comprise a mix of people including family, friends, living companions and professionals. The observed correlations between overall network size and the various measures of satisfaction, and between the size of various network segments and satisfaction measures, underscore the importance that different individuals may have in providing support. The potential importance of network size to client outcomes was further highlighted by the post-hoc analyses, which showed a positive relationship between overall network size and satisfaction with support received from non-family members and between size of family network and satisfaction with support received from family members, even after the effects of client

functioning and gender had been removed. Finally, the results also highlight the importance of gender differences in social support processes in that women in the sample had larger networks and reported receiving more positive social support.

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Social Role Valorization, Social Network Transactions and Life Satisfaction

for People with Psychiatric Disabilities

Over the past three decades, the primary thrust of mental health policy in North America has been deinstitutionalization. The result of this shift in ideology has been the displacement of hundreds of thousands of persons with psychiatric disabilities¹ from institutional settings to community-based living environments. In the United States, for example, 400,000 individuals with psychiatric disabilities have been released into the community since 1960 (Mechanic & Rochefort, 1990). The number of individuals released from Canadian psychiatric institutions has followed a proportionately comparable trajectory, with over 40,000 individuals moving from public mental hospitals to community settings since the 1960s (Rochefort, 1992).

In line with this focus on deinstitutionalization, contemporary mental health policy has been directed at achieving the goal of community integration; that is, helping people with psychiatric disabilities to re-integrate into community settings and, to the greatest extent possible, lead normal and independent lives (Aviram, 1990; Carling, 1995; Rochefort, 1992).

Driving this philosophy of community integration are two key assumptions that have had a profound impact on mental health policy and service delivery. The first assumption is that communities can and should support individuals by providing basic and necessary services. In its application, this idea has led to the development of a comprehensive and complex community

¹ The definition of severe mental illness used here is in line with that of the Ontario Ministry of Health (1988), which is based on Tessler and Goldman's (1982) three commonly accepted dimensions of diagnosis, duration and disability. Thus, the present study uses the term "persons with psychiatric disabilities" to refer to those who are diagnosed with a chronic mental health problem which interferes with their ability to function in behavioural, social and/or occupational domains.

system of mental health care and treatment, including a vast range of support, housing and employment services, and social support opportunities (Bachrach, 1985; Aviram, 1990).

Nevertheless, these services in and of themselves are still considered deficient relative to the complex needs of people with psychiatric disabilities who live in the community (Rocheffort, 1992).

The second key assumption is that the application of normalization/social role valorization (N/SRV) principles is the best way to foster the community integration of people with psychiatric disabilities. Normalization as an ideology is defined as "the utilization of means which are as culturally normative as possible in order to diminish and/or maintain personal behaviours and characteristics which are as culturally normative as possible" (Wolfensberger, 1972; p. 28). Similarly, SRV (a reconceptualization of normalization theory) posits the use of culturally valued means to enable, establish, enhance, maintain and/or defend valued social roles for people, particularly those at value risk (Wolfensberger, 1985, 1994).

The influence of SRV theory, with its emphasis on social integration and social roles, is reflected in the fact that integration with mainstream society has become a primary objective of current legislation and social policy around the world, particularly in the field of developmental disabilities (Flynn & Aubry, 1999). Within the field of psychiatric disabilities, the influence of SRV principles has been less direct, although its influence is still evident. From a service delivery perspective, SRV tenets are mirrored in the development of community programs that avoid congregation and segregation and that focus instead on helping individuals with psychiatric disabilities build relationships with non-disabled individuals and assume normal roles in the

community via regular work, housing, education and social settings (Carling, 1992, 1995).

Notwithstanding the importance of SRV tenets to current mental health policy and practice, the following literature review will demonstrate that a limited number of studies have assessed the effectiveness of the theory as a community integration strategy. Indeed, although these studies have provided some preliminary support for the tenets of SRV, the theory has (for the most part) remained an inherently appealing system of values that has not been subject to prospective, hypothesis-testing research (Flynn & Lemay, 1999).

In a similar way, questions still remain about the success of the larger community integration movement (Flynn & Aubry, 1999; Kennedy, 1989; Walsh & Connelly, 1996). Particularly noticeable is the lack of research surrounding one of the most pivotal aspects of both community integration and SRV theory: *social integration* (Carling, 1995; Pomeroy, Cook & Benjafield, 1992). Within the field of psychiatric disabilities, Segal and Aviram's (1978) definition of social integration has been the most widely cited, and includes the following five factors: a) *presence* (the amount of time spent in the community), b) *access* (the degree of availability of places, services, and social contacts), c) *participation* (amount of involvement in activity with other people), d) *production* (participation in gainful employment), and e) *consumption* (ability to manage finances and purchase goods and services).

Although it is clear that social support processes are important for the adaptation of individuals with psychiatric disabilities, our knowledge of the nature of their social networks, the processes of social support within these networks, and their impact on adaptation is limited (House, Umberson, & Landis, 1988). The lack of research concerning aspects of social support

for individuals with psychiatric disabilities is particularly striking in light of the wealth of studies over the past decade which have demonstrated the importance of social support in relation to the physical and mental health of non-disabled individuals (for reviews see Cohen & Wills, 1985; Coyne & Downey, 1991; House, Umbertson, & Landis, 1988).

The purpose of the present study was to test a model of the relationship between SRV theory, social network characteristics and transactions, and subjective ratings of life satisfaction of adults with psychiatric disabilities. In particular, the first objective was to further empirical testing of SRV theory within the domain of mental health. If indeed the tenets of SRV theory are applicable to individuals with psychiatric disabilities, then this theory may provide a coherent framework for the implementation of mental health policy and service delivery - a framework that is, in many ways, parallel to contemporary thinking. In practical terms, this could lead programs to adopt a new way of thinking about and structuring opportunities for social role development and social integration, thereby enhancing the well-being of the devalued individuals served. In addition, the application of SRV theory to mental health services could provide a useful didactic framework for training service providers in how best to serve their clients.

The second objective of the current study was to further research on the social networks and transactions of individuals with psychiatric disabilities. Although these variables have long been recognized as pivotal to the mental health of the general population, research as it applies to individuals with psychiatric disabilities is less well-developed. A better understanding of the network structures and transactions of these individuals would be invaluable to service delivery, particularly in light of the fact that decreasing resources for professional support services in the

community have necessitated a greater emphasis on developing and using natural support systems (Carling, 1995). Thus, a better understanding of the nature of support networks may be the first step in helping individuals with psychiatric disabilities to maximize their own sources of support. In addition, a better understanding of these support processes may allow identification of the characteristics (e.g., age, gender) which put individuals at particular risk for social isolation.

In a related way, the third objective of the current study was to further research on the contribution of environmental and transactional characteristics to the life satisfaction ratings of individuals with psychiatric disabilities. From a practical standpoint, a better understanding of how environmental (i.e., residential) characteristics relate to measures of well-being could have important implications for the design and implementation of housing programs. Similarly, learning more about how social networks and transactions are related to outcome measures could lead to program practices which strengthen the adaptation and reintegration of individuals with severe mental illness into community life.

Following a discussion of SRV theory and related research, a review of the literature concerning the social network characteristics and transactions of adults with psychiatric disabilities will be presented. To capture the multidisciplinary nature of both research areas, reviews of PsychINFO, SocioFile, and MedLine were conducted using the following keywords: psychiatric disability, mental illness, social support, social transactions, social network, social integration, normalization, and social role valorization. A manual search was also conducted for references cited in the articles obtained through the database review. Studies on social network

characteristics and transactions were included in the review if they included some form of quantitative methodology and if they were published in peer-reviewed journals, books, or government documents. The same inclusion criteria were applied to the SRV literature relevant to developmental disabilities and mental health. However, given the scarcity of SRV literature in both of these domains, unpublished studies (i.e., doctoral dissertations) were also included in the review.

Conceptual Overview of Normalization/SRV Theory

Although its historical roots may be traced back to the nineteenth century concept of moral treatment (Lemay, 1995), normalization as a cogent philosophy did not come to light until relatively recently. During the twentieth century, the concept of normalization emerged from post-World War II efforts to improve services in Scandinavian countries (Bank-Mikkelsen, 1969; Nirje, 1969). An expression of fundamental sociopolitical views in countries such as Denmark and Sweden, normalization was defined by Nirje (1969) as the goal of providing opportunities for individuals with mental retardation to participate in patterns and conditions of everyday life that parallel those of mainstream society.

In the United States, Wolfensberger (1972) expanded the idea of normalization into a comprehensive ideology for purposes of a North American audience and for broad adaptation to human management. His attempts to expand the theory of normalization were aimed at grounding the Scandinavian formulations in social and behavioural science and expanding the relevance of the theory from those with mental retardation to a broader spectrum of disadvantaged individuals (Wolfensberger, 1972). As articulated by Wolfensberger (1972),

normalization is the “utilization of means which are as culturally normative as possible in order to establish and/or maintain personal behaviours and characteristics which are as culturally normative as possible” (p. 28). In the context of the theory, life satisfaction, self-esteem, and personal competencies are seen as results of interaction with mainstream society. On the other hand, exclusive involvement with other disadvantaged people in atypical, segregated environments is considered detrimental to an individual’s well-being. “Well-being” is defined broadly as an individual’s ability to grow and develop, enjoy a culturally normative degree of personal autonomy and choice, have access to valued experiences and resources, and lead a lifestyle that would be comparable to that of the majority of others the same age (Wolfensberger & Thomas, 1981).

Wolfensberger (1972) postulated that for devalued individuals to achieve social acceptance, they must be integrated into mainstream community life, both physically and socially. In considering physical integration of a service, he emphasized aspects such as distance from resources and social groupings, physical context to other services and settings, access to the service and size of the service. Simply put, Wolfensberger’s original concept of social integration involved the opportunity for devalued individuals to interact closely and on a day-to-day basis with valued individuals. He also noted that while physical integration was necessary for social integration, its presence did not guarantee that a devalued individual would enjoy social acceptance and integration. Rather, he suggested that a service may be optimally integrated in a physical sense, but suffer from extensive social segregation.

Wolfensberger's goal for normalization theory was ambitious: the formulation of a complete human management model, including tools of analysis, implementation and evaluation (Lemay, 1995). In line with this ambition, early North American dissemination and training events drew on multidisciplinary ideas of deviancy, human development, imagery, social integration, and valued social participation as key concepts. In fact, Wolfensberger's emphasis on social integration represented a fundamental difference between the Scandinavian and North American formulations. Whereas the Scandinavian theorists advocated life in "normalized" institutions for devalued citizens, Wolfensberger saw valued social participation as both a means to normalization and an end (Lemay, 1995). For him, the most explicit and highest goal of normalization was the creation, support, and defence of valued social roles for people who are at risk of social devaluation (Wolfensberger, 1983):

All other elements and objectives of the theory are really subservient to this end, because if a person's social role were a societally valued one, the other desirable things would be accorded to that person almost automatically, at least within the resources and norms of his/her society. Indeed, attributes of the person which might otherwise be viewed negatively by society would come to be viewed positively...In contrast, people are considered to be of low value when they are not seen as having valued social roles (p. 234).

To reflect the primary emphasis on social roles and to clarify terminological confusion surrounding the word "normalization," Wolfensberger renamed the theory "social role valorization" in 1983. In reconceptualizing the theory he proposed that the devalued person and how he or she is perceived by society is paramount to SRV (Wolfensberger, 1983, 1992, 2000). A person perceived to be of low value, either because of his or her actions or characteristics, will be treated in ways that reflect societal perception. He or she will be rejected, separated and

excluded, and relegated to the status of “deviant.” In turn, this rejection and separation will be manifested in a host of undesirable conditions: low-quality housing, poverty, poor health care, low-paying employment, and lack of opportunity for social relationships, respect, autonomy, and participation in the activities of valued persons.

Based on this idea, SRV proposes that valued social roles for devalued people need to be created and preserved for them to become valued members of society and to enjoy an enriched quality of life (Wolfensberger, 1992, 2000). Similarly, SRV advocates that the fundamental goal of a service program for individuals who are considered devalued is to create and safeguard the social roles of its participants by enhancing their images and competencies to be more in line with socially valued analogues. In other words, a service program must influence societal perception by presenting and interpreting its clients to typical and even valued citizens in ways which help them to identify with clients and build positive mental associations to them (Thomas & Wolfensberger, 1982). Thus, true to his original assertions surrounding normalization theory, Wolfensberger (Wolfensberger & Thomas, 1983) maintained that physical and particularly social integration are the cornerstones of building socially valued roles for devalued individuals.

In practical terms, SRV dictates that service providers must integrate social role principles into program design and implementation. Thus, numerous aspects of the service are considered important in enhancing the images of the program participants and must therefore be reflective of culturally valued analogues: the service setting (i.e., neighbourhood characteristics, location, internal and external features of the site, etc.); the opportunities for social contact afforded to clients; the activities and routines outlined by the program; the language and labels

applied to and about program participants; and the funding sources and fund-raising events that support a service.

In addition to its emphasis on the importance of valued social roles, SRV differs from normalization in terms of its grounding in social science. Whereas normalization combined some elements of social science with ideology, SRV is rooted firmly in well-established tenets of social science (Lemay, 1995, 1999). As articulated by Wolfensberger (1992), SRV purportedly integrates into a single framework research on social science concepts such as self-fulfilling prophecy, social perception, semiotics, and labelling theory. In addition, the theory suggests what must be done to achieve a goal (e.g., enhancement of image or competency) for a devalued person and describes action decisions on the basis of what is known to be effective rather than what one believes to be true (Lemay, 1995).

To measure the degree of implementation of normalization principles in a program, Wolfensberger and colleagues have created an evaluation and teaching tool: *Program Analysis of Service Systems: A Method for the Quantitative Evaluation of Human Services* (PASS, Wolfensberger & Glenn, 1975), and an updated and refined version of the evaluation tool, *Program Analysis of Service Systems' Implementation of Normalization Goals* (PASSING, Wolfensberger & Thomas, 1983). In addition, workshops are offered throughout North America and Europe to teach the principles of SRV to professionals, service providers, and advocates from a variety of disciplines, including education, social work, sociology and psychology.

The Impact of Normalization/Social Role Valorization on Program & Policy Development in Human Services

More than in any other sector, N/SRV theories have made an indelible contribution to policy and program initiatives in the area of mental retardation (Elks, 1994; Heal, 1980; Mesibov, 1990; Scheerenberger, 1987). According to Heal (1980), SRV has “pervaded the development of community service” for people with developmental disabilities (p. 39). Similarly, Scheerenberger (1987) wrote that “no single categorical principle has ever had a greater impact on services for the mentally retarded persons than that of normalization” (p. 116). Kendrick (1999) notes that although other social forces (e.g., the civil rights movement, empowerment, community living) may have influenced contemporary policy and practice, N/SRV have served as the major reference point for the field of developmental disabilities since the 1960s. Indeed, a recent panel of 178 experts in the field of mental retardation identified Wolfensberger’s (1972) conceptualization of normalization as the single most important work in developmental disabilities in the last 50 years (Heller, Spooner, Enright, Haney, & Schilit, 1991).

In the field of mental health, the accolades for N/SRV theories have not been as extensive, perhaps because the influence of N/SRV within this sector has been more indirect. Nonetheless, the tenets of N/SRV parallel the trend toward “community movement” in mental health services and are apparent in current mental health legislation and social policy around the world (Flynn & Aubry, 1999). From a service delivery perspective, the central tenets of N/SRV theories are reflected in the development of community programs that avoid congregation and segregation and that focus on helping individuals with psychiatric disabilities to build

relationships with non-disabled individuals and assume normal roles in the community via regular work, housing, education and social settings (Carling, 1992, 1995).

In essence, SRV has captured the imagination and commitment of many professionals, service providers, and policy makers (Landesman & Butterfield, 1987) and has been influential in shaping contemporary policy and programming. Yet, despite the claim that SRV is grounded in “pure social science” (Lemay, 1995, p. 518), a limited number of studies (particularly in the mental health field) have actually used experimental methods to directly examine the credibility of SRV as a coherent theory of human service provision, or as a means of improving the quality of life of disadvantaged individuals. Flynn (1999) notes, for example, that the PASS and PASSING have not been widely used for formal research purposes. Rather, they have been used mainly as practical and pedagogical tools to evaluate individual services and agencies and educate service personnel about SRV principles. Thus, SRV has endured as an appealing ideology but has not, for the most part, been subject to rigorous hypothesis-testing (Flynn & Lemay, 1999; Hull & Thompson, 1981; Landesman & Butterfield, 1987).

In the next section, studies that have used PASS and PASSING will be reviewed, particularly as the results relate to the assumptions of N/SRV theory. Specifically, empirical studies in the area of developmental disabilities will be highlighted, and the few studies that have considered the implications of N/SRV theory for individuals with psychiatric disabilities will be discussed. To provide a conceptual framework for this review, the section will begin with a brief overview of the content and structure of the PASS and PASSING measures.

Empirical Research Using PASS and PASSING in Human Service Settings

Overview of the PASS and PASSING Measures

Like SRV theory, both PASS and PASSING are based on the assumptions that human service environments may have significant effects on the behaviour and competencies of the clients served, and that a good fit between environmental opportunities and clients' specific needs is most likely to lead to positive service outcomes (Levine & Perkins, 1987). As such, both tools are used to evaluate service environments in order to improve them, and to teach the principles of normalization/SRV to service personnel.

The PASS measure (Wolfensberger & Glenn, 1975) is used by a team of external raters to assess a human service program according to normalization principles. Each of the 50 items comprising the measure has from three to six response categories, ranging from "very poor" to "near-ideal" service quality. The majority of ratings (i.e., 34) assess the degree to which normalization principles have been implemented in a service setting, while the remaining 16 ratings evaluate administrative issues. After independent ratings are made of the service setting by evaluators, a "conciliation" process is held in which information is shared and the team arrives at a consensus on the final score to be assigned to each rating. A total weighted PASS score is calculated by summing across the 50 items, and scores can range from -947 (very poor service quality), through zero (minimally acceptable quality), to +1000 (near ideal service quality).

As with its predecessor PASS, the PASSING rating system (Wolfensberger & Thomas, 1983) is used by a team of evaluators to arrive at a consensus on the level of service performance

attained by a service setting. In content, however, **PASSING** differs somewhat from **PASS** in that it focuses on the two SRV dimensions: client social image-enhancement and client competence enhancement. These dimensions are evaluated according to 42 ratings in four program areas: physical setting (i.e., the service facility and surrounding neighbourhood), service-structured groupings and interpersonal relationships, service-structured activities and miscellaneous other issues. Each rating is composed of five response levels which range from “very poor” to “near ideal” service quality. Total weighted **PASSING** scores are calculated by summing the weighted scores on all 42 ratings and can range from a minimum of -1000 (extremely poor service quality), through zero (minimally acceptable service quality), to a maximum of +1000 (near-ideal service quality).

Although both **PASS** and **PASSING** were originally developed without the use of factor or item analysis, Flynn, Guirguis, Wolfensberger, and Cocks (1999) have recently derived factor structures for the measures using exploratory and confirmatory factor analysis. Despite slight differences in the factor structures of the two measures, results showed that in general **PASS** and **PASSING** are best represented by three key factors: Program, Setting and Accessibility. Notably, **PASS** also contains a fourth factor called Administration which evaluates the managerial aspects of a service, including the extent to which service providers (1) involve clients, their families and the public in decision-making processes relevant to the service, (2) educate the general public about the service, and (3) engage in planning and ongoing evaluation.

The Program factor of **PASS** and **PASSING** contains ratings evaluating the *content* of a human service (Flynn et al., 1999). High scores on this factor indicate, for example, that the

service is successful in meeting clients' needs through integration with valued citizens, promotion of age-appropriate and culture-appropriate personal appearances, interaction with participants in warm and respectful ways, facilitation of their acquisition of age-appropriate personal possessions, and promotion of their exercise of age-appropriate autonomy, rights, and sex-related behaviour.

The Setting factor of PASS and PASSING contains items that assess the *physical setting* of a service. Thus, a high score on this factor indicates, for example, that the service is situated in a building with an external appearance that is consistent with the function of the service (i.e., residential or vocational), and that blends well with the surrounding neighbourhood. Given its emphasis on social roles, the Setting factor of PASSING also contains items which evaluate the extent to which the physical setting of the service is similar in appearance, size, and style to the exteriors of settings which provide analogous services for valued persons.

Finally, a high score on the Accessibility factor of PASS or PASSING would indicate that the program provides a service setting that is readily accessible (e.g., located near public transit routes, providing free parking) to its potential or actual clients, their friends and family, and the general public. In addition, a high score on the Accessibility factor would indicate that the program setting provides its clients with access to a wide range of community resources relevant to their needs (e.g., banks, grocery stores, restaurants).

In discussing their findings, Flynn et al. (1999) note that their PASS and PASSING factors parallel both the structural aspects (e.g., physical characteristics of the service setting including size, location, and characteristics of the surrounding neighbourhood) and functional

aspects (e.g., the daily operations of the program including types of activities in which clients engage, the independence afforded to clients, the frequency and quality of interactions between staff) that ecologically oriented evaluation approaches typically define as paramount (e.g., Meador, Osborn, Owens, Smith, & Taylor, 1991). Within this framework, Flynn et al. (1999) describe how the Setting and Accessibility factors of PASS and PASSING tap the structural aspects of service delivery, while the Program factor (and the Administration factor in the case of PASS) evaluate the functional components.

Research Using PASS and PASSING in the Developmental Disabilities Sector

Given its profound impact on the field of developmental disabilities, it is not surprising that the majority of research concerning SRV theory has come from this area. Indeed, a growing body of literature concerning individuals with developmental disabilities has yielded several important findings about SRV that have relevance from both a service delivery and research perspective. For example, several studies using PASS or PASSING have shown that human service programs for individuals with developmental disabilities are reasonably successful at integrating clients physically into mainstream society, but fare poorly at integrating clients socially.

For example, in their study of the factor structure of PASS, Flynn et al. (1999) analyzed 626 programs in Canada, the United States, France and Switzerland evaluated with PASS between 1975 and 1987 and serving mainly individuals with mental retardation. Results demonstrated that average scores on physical integration indices (i.e., Setting and Accessibility)

were well above the 50% of the maximum possible weighted score² that the authors of PASS deem “minimally acceptable” service quality. On the other hand, the maximum possible weighted scores for the indices most closely related to social integration (i.e., Program and Administration) were 36% and 37%, respectively - that is, far below the minimally acceptable level.

In the same paper, Flynn et al. (1999) report the results of an analysis of 633 PASSING evaluations conducted of services for individuals with developmental disabilities (39%) and a variety of other disabling conditions (e.g., mental health difficulties, physical difficulties or “mixed” impairments) in North America, Australia, New Zealand and the United Kingdom. As with the data collected using PASS, the mean percentage scores on the PASSING subscales assessing physical integration (i.e., Setting and Accessibility) were the highest, in this instance close to the minimally acceptable level of service quality (i.e., 50% of the weighted maximum possible score on each subscale). However, the mean percentage score on the Program factor, the one most relevant to social integration, was significantly lower than the minimum acceptable level at only 21%. Other studies in the area of developmental disabilities have also found that services typically score higher on PASS rating clusters concerned with physical rather than social integration (e.g., Felce & Perry, 1997).

In a larger context, several studies have demonstrated that global service quality for individuals with developmental disabilities is modest by SRV standards. Further, and in support

² Weighted scores for both PASS and PASSING (sub)scales may also be expressed as a percentage of the total maximum score on that (sub)scale using conversion formulae (Flynn et al., 1999). Thus, 50% (i.e., the equivalent of a weighted score of zero) of the total maximum weighted score for a (sub)scale represents a “minimally acceptable” level of service quality.

of SRV theory, research has also demonstrated that community residences typically achieve higher overall PASS and PASSING ratings than institutional settings. For example, Flynn, Lapointe, Wolfensberger and Thomas (1991) considered 213 programs evaluated with PASSING between 1983 and 1988 in Canada, the United States and the United Kingdom. Forty per cent of the programs served mentally retarded persons, 38% served subgroups of clients with a variety of disabling conditions, and 6% served clients with psychiatric disabilities. Results demonstrated that the average level of service quality in the sample, as measured by the total PASSING score, was below the minimum accepted standard at only 32% of the maximum possible weighted score). Further, community group residences ($\underline{M}=37\%$) and community vocational programs ($\underline{M}=31\%$) scored higher than institutional residences ($\underline{M}=21\%$). Flynn and colleagues' (1999) factor analytic study (as outlined previously) also revealed that overall service quality was below the minimally acceptable level (43% and 32%, respectively) in two independent samples of PASS and PASSING evaluations.

In perhaps the most critical test of the tenets of SRV, several studies using PASS and PASSING have demonstrated a link between the degree of SRV in the environment and social integration and quality of life measures. For example, Heal and Daniels (1986) studied the costs and effects of three types of residential settings (natural homes, group homes and landlord-supervised apartments) for 29 adults with developmental disabilities in Wisconsin. For each individual, the authors related the total PASS score for the residence type to measures of client satisfaction, the individual resident's contribution in labour and money to his/her own residential services, and Parts I and II of the Adaptive Behaviour Scale (ABS; Nihira et al., 1974; cited in

Heal & Daniels, 1986). When the effects of adaptive behaviour (as measured on the ABS) and the individual's contribution to his or her own residential service costs were statistically removed from the equation, results showed that individuals living in natural homes and apartments enjoyed more normalizing environments and were more satisfied than those living in group homes.

Also using the PASS measure, Picard (1988; cited in Flynn, 1999³) studied adaptation and social integration among mentally retarded persons living in family care homes in Quebec. In general, PASS scores for each of the 52 clients were not highly correlated with scores of adaptation as measured on the Adaptive Behaviour Scale (Lessard, 1975; cited in Flynn, 1999). Nonetheless, residents living in homes scoring higher on the Program subscale also had higher scores on a measure of social integration designed by Picard for the study. In particular, residents living in homes scoring higher on the Program subscale engaged more frequently in integrative activities and needed less assistance participating in these activities. Similarly, those in homes scoring higher on the total PASS measure had more diverse social contacts, including those with non-disabled citizens.

In their longitudinal study of 14 community homes in Wales serving people with developmental disabilities, Perry and Felce (1995) also found a relationship between scores on PASS ratings and various measures of community integration and quality of life. For example, the PASS interactions rating (designed to tap the extent to which a setting promotes social interactions for clients) was significantly and negatively correlated at both the 1- and 2-year

³ Picard's report on the adaptation and social integration among individuals with developmental disabilities living in family-care homes in Quebec is available only in French.

follow-up with the social distance dimension of the Group Home Management Schedule (Pratt, Luszcz, & Brown, 1980), a measure of the extent to which management practices are institutionally (i.e., greater social distance) or individually (i.e., less social distance) oriented. Moreover, the PASS ratings cluster known as “developmental growth orientation” (i.e., a cluster of items assessing the degree to which a service challenges its clients to develop socially and affords social and physical independence to clients) was significantly correlated at Time 1 and Time 2 with another quality of life measure, the personal growth dimension of the Community Oriented Programs Environment Scale (Moos, Insel, & Humphrey, 1974). The individual PASS ratings assessing age-appropriate and culture-appropriate activities, routines and rhythms were also strongly correlated at Time 1 and Time 2 with scores on the Index of Participation in Domestic Life (Raynes, Sumpton, and Pettifer, 1989), a measure of the extent to which a service provides opportunities for individuals to be involved in domestic tasks.

Borthwick-Duffy, Widaman, Little and Eyman (1992) also studied client outcomes in relation to the quality of residential environments in a longitudinal analysis of 333 people (aged 21 or older) with mental retardation who lived in small family care settings with foster parents in Southern California. Over the 3-year study period, the authors found that the quality of the residential environment (comprised in part of the PASS factors of Normalization-Program and Normalization-Setting) had a positive influence on interpersonal relationships within the foster care home and with the natural family, friends and neighbours, though not until the third year of the study. This suggests that some environmental characteristics may have progressive, but important, cumulative effect on the lives of residents over a period of time (Borthwick-Duffy et

al., 1992). Client characteristics also tended to interact with environmental characteristics. Clients who were older or more severely retarded were less likely to live in normalized environments. In a related way, caregivers who were older and had more experience tended to provide less normalized environments, while those with more formal education tended to provide more normalized homes.

Other studies also suggest that the benefits of a more normalized environment may depend on client characteristics. Mindel and Rosentraub (1992), for example, assessed both the implementation and impact of an experimental residential program in Texas. The program moved individuals with mental handicaps from institutional settings or community settings to community-based living situations based on normalization principles. Over a 3-year period, the authors collected data on 72 persons who were in the program for 3 years and on 214 persons who were in the program for 2 years. Individuals in the program who had previously been institutionalized were matched on a number of variables with a comparison group who was currently institutionalized. Likewise, individuals who had previously been living in the community before joining the experimental program were matched with a control group comprised of current community residents. Implementation of normalization was assessed with seven (unspecified) ratings from PASS, in addition to three unspecified ratings of normalization developed by Conroy and Feinstein (1985⁴; cited in Mindel & Rosentraub, 1992). The impact of the new program was measured using the Vineland Adaptive Behaviour Scales (Sparrow, Balla, & Cicchetti, 1984). Adaptive and maladaptive behaviour in four domains was assessed:

⁴ This government report is currently unavailable.

communication, daily living skills, socialization, and motor skills.

In assessing the implementation of the experimental program, the authors found that normalization scores in the living environments of the previously institutionalized clients improved significantly over a 1-year period and remained constant thereafter. In contrast, no change in the living environment was observed for the institutionalized comparison group. No differences existed, however, between program participants living in the community before joining the program and their comparison group, and scores for both of these groups remained constant over the 3-year study period. Thus, the authors concluded that, compared with state institutions, the program did succeed in creating more normalized environments. However, for participants joining the program from previous community residences, no benefit was observed.

In assessing the impact of the program, the authors found that the benefits of normalization depended on client characteristics. In particular, their data suggested that the program was particularly valuable for individuals with more severe retardation, regular medical needs, and/or initially high levels of maladaptive behaviour. Other studies which have considered client gains after a move from an institution to community residences have also found significant positive correlations between degree of normalization within a residential setting (as measured on PASS items) and other measures of adaptive behaviour (e.g., Fiorelli, 1978).

Although they did not use PASS or PASSING to assess degree of normalization, the extensive research program of Burchard and colleagues (1999) with developmentally disabled individuals in Vermont is also noteworthy because their findings lend support to the assertion that greater implementation of normalization principles is related to more positive client

outcomes. In their 3-year longitudinal comparison of individuals living in small group homes (GH), semi-independent, supervised apartments (SA) or natural family homes (FHs), the authors considered predictor variables including age, gender, level of disability, length of prior institutionalization, social integration, and environmental characteristics (e.g., residence type, degree of normalization of the physical environment, and caregiver competencies and attitudes). Outcome variables for the study included several aspects of normalization (including type and extent of work, lifestyle normalization, physical integration, social integration and independent performance of daily and community-living skills) and personal-adjustment outcomes (behaviour adjustment, type and extent of social-support network, and satisfaction with various life domains). Measures used in the study consisted primarily of rating scales and structured interviews designed by Burchard to reflect normalization principles. In addition, The Community Adjustment Scale (Seltzer & Seltzer, 1976) was used to assess performance of independent behaviour and environmental opportunity. Physical integration was operationalized as the frequency of activities that took place in the community where contact with other community members was possible and probable, and social integration was defined as the frequency of activities that took place in the community in the company of a non-disabled individual. All measures were obtained annually for a period of three years.

Results across the three-year study indicated significant differences between residents of different housing types along the dimensions of normalization of lifestyle and community integration - even after the effects of cognitive functioning had been statistically removed. In particular, individuals who lived in SA settings enjoyed the greatest residence-lifestyle

normalization, community access and integration and independent performance of skills.

Moreover, after controlling for personal competence, and considered across all participants for the first year of the study, the authors also found that location, residence-lifestyle, normalization and opportunity (for both engaging in activities and having the autonomy to choose which activities) explained 44% of the variance in independent functioning. Normalization factors were also predictive of client satisfaction in some domains. For people in GA and SA settings, normalization factors consistently predicted personal lifestyle satisfaction across the three years of the study. In addition, a significant amount of variance in living satisfaction was predicted by degree of normalization in the environment, even after the effects of behavioural adjustment had been statistically removed. For individuals living in FH settings, the degree of normalization expressed by parents significantly predicted satisfaction with living situation. Moreover, for individuals living with their families, the single factor that predicted subjective well-being was residence-lifestyle normalization. In conjunction with results from their larger research protocol, the authors suggest that their findings indicate a consistent relationship between degree of normalization, independent functioning and the self-reported satisfaction and adjustment of clients.

To date, only one study has used PASSING to evaluate the degree of normalization in living environments before and after a move from an institution to a community setting. Pilon, Arsenault, and Gascon (1993; cited in Flynn, 1999⁵) studied the impact of moving from an institution to a community-based family-care home on the social integration and quality of life of

⁵ Pilon et al.'s (1993) published summary of their research report is available only in French.

Quebec residents. Thirty-six adults with mental retardation were followed for 1 year after they had left an institutional environment. In addition, a control sample of 36 mentally handicapped individuals who remained in an institutional setting were also followed. Compared to their peers who stayed in institutions, those who moved to the community experienced significant gains on a quality of life measure designed for the study and on a measure of social integration, the French-language version of the Valued Outcomes Information System (VOIS; Newton et al., 1988). Moreover, the 10 family-care settings evaluated scored significantly higher than the institutional settings on the Setting, Accessibility and Program subscales of the PASSING measure.

In summary, research in the field of developmental disabilities has indeed garnered empirical support for the tenets of N/SRV theory. In particular, several studies have confirmed Wolfensberger's (1972, 1983) fundamental distinction between physical and social integration, and the related idea that services may afford clients the former without the latter. Research in this area has also demonstrated that overall service quality tends to be modest by N/SRV standards and that community residences, which almost by definition tend to provide more socially and physically integrative settings, tend to score higher on PASS and PASSING than do institutional environments. Notably, however, there is evidence that these results may vary somewhat depending on client characteristics such as degree of disability and age, and on caregiver qualities such as age and amount of formal education. Finally, the preliminary finding that those who live in more normalized settings tend to score higher on measures of adaptive functioning and quality of life supports the most fundamental assumption of N/SRV that greater integration into mainstream society tends to afford devalued individuals more positive outcomes.

Nevertheless, more research is certainly necessary to support the tenets of SRV theory. As Flynn (1999) notes in his comprehensive review of the literature surrounding PASS and PASSING, few studies have considered data on actual client outcomes. Findings in this area are desirable for two reasons. From a practical standpoint, this type of data may prove invaluable in clarifying the conditions under which high service quality and responsive program environments are likely to foster desirable client outcomes (Flynn, 1999). From a theoretical perspective, data relating client outcomes to environmental characteristics are necessary to support the basic premise of SRV theory that enhancing social roles for devalued individuals will in fact lead to improved quality of life.

Several other criticisms of the studies reviewed here are also warranted. First, many of the studies employed different versions (i.e., modified or partial versions) of the PASS and PASSING tools, making cross-comparison of findings difficult. With a few notable exceptions (e.g., Borthwick-Duffy et al., 1992; Flynn et al., 1991, 1999), many of the studies included here were also limited by small sample sizes, thereby limiting the generalizability of the findings to other populations.

The problem of small sample sizes is also compounded by the fact that only a few researchers used even quasi-experimental designs (e.g., Mindel & Rosentraub, 1992; Pilon et al., 1993; cited in Flynn, 1999), and none used a true experimental design. This shortcoming is illustrated in Heal and Daniels' (1986) examination of the costs and effects of three types of residential settings. Not only was the overall sample size limited to 29 individuals, but one third of this sample was characterized by the authors themselves as "extremely variable...and defy(ing)

simple characterization “ (p. 38). Although designing randomized control studies of living environments for clinical populations would indeed pose a challenge, such data would be invaluable to testing SRV theory, both from a practical and theoretical vantage. Further, true experimental designs would be particularly informative if combined with a longitudinal perspective and more sophisticated statistical methods, as in the research of Borthwick-Duffy et al.(1992) who moved beyond the use of simple correlations to more complex structural equation models to explore client outcomes in relation to residential characteristics.

Finally, the studies which have shown that more normalized settings tend to correlate with quality of life measures can only be considered preliminary in light of the fact that virtually every study reviewed used a different index of quality of life. In a related way, future research linking environmental characteristics to outcome variables would also benefit from the addition of measures that include a client perspective, rather than an exclusive focus on objective or third-party indicators of client quality of life and/or adaptive functioning (e.g., Mindel & Rosentraub, 1992; Perry & Felce, 1995).

Research using PASS and PASSING in the Mental Health Sector

To date, six studies have considered outcomes associated with the degree of SRV present in the environments of individuals with psychiatric disabilities, with five using PASS (or modified versions thereof) and one using PASSING to assess environmental characteristics. In an unpublished doctoral dissertation, Golden (1982) studied differences between normalization theory and community residences for individuals with psychiatric disabilities. She rated eight community residences using the full version of PASS and then compared residences with high

and low PASS scores on two dimensions: internal setting interactions and external interactions in the community. Parallel to many of the findings in the area of developmental disabilities, she found that community residents were physically integrated into their communities but socially isolated from mainstream society because of programmatic and administrative barriers. Moreover, the interpersonal process within the service setting was found to be powerful in either fostering or undermining normalization.

More recently, Carson and colleagues in Great Britain (Carson, Dowling, Luyombya, Senapati-Sharma, & Glynn, 1992) used a modified version of PASS to conduct a comparison of two in-patient psychiatric wards ($n = 31$ and 12 , respectively) with an adjacent community residential program ($n = 7$) founded on normalization principles. Based on results of the full version of PASS and measures to assess behaviour, quality of life, resident satisfaction, staff attitudes to treatment and ward management, the authors found that clients in the residential program had higher ratings on quality of life measures and were exposed to more individualized and resident-oriented management practices. In addition, clients of the residential program were accompanied more frequently into the community by staff members, and staff in the residential program were more satisfied with their work. Although the research of Carson and colleagues (1992) does add to the idea that more normalized settings lead to better outcomes in a psychiatric context, conclusions based on their data are tenuous given the small sample sizes, particularly in the residential setting.

Hull and Thompson (1981a) used an adapted version of PASS to examine the extent to which individual, residential and community characteristics were related to the adaptive

functioning of 296 former psychiatric hospital patients living in board and care facilities in Manitoba. Marlett's (1977a, 1977b) Adaptive Functioning Index (AFI) was used to indicate adaptive behaviour, and a 172-item version of PASS was used as a measure of the degree of normalization in the environment. Based on several stepwise regression analyses, numerous aspects of environmental normalization as measured by PASS (e.g., appropriateness of staff-resident interactions, a more valued geographic location within its region, less verbal abusiveness, more opportunities for autonomy, more adequate transportation facilities, a greater emphasis on activities promoting social integration, more age-appropriate possessions and activities, more normalized client image, and more adequate community resources) were found to predict higher scores on subscales of the AFI.

Using the same sample of individuals and the same measures, Hull & Thompson (1981b) also considered the determinants of the level of normalization in the community residence. A stepwise regression analysis of the PASS data found that characteristics of the residences, rather than characteristics of the residents themselves, were more strongly related to environmental normalization. For instance, more normalized residences tended to be smaller, to provide more opportunities for independence, to serve only one disability group (as opposed to many "devalued" groups), and to be located in middle or upper income communities with higher quality homes, and more community resources and potentially integrating activities.

In a subsequent study that combined their sample of individuals with psychiatric disabilities with a sample of individuals with mental retardation (N=665), Hull, Keats, and Thompson (1984) also found support for the assertion that a more normalized environment is

predictive of better client adaptation. As in the first study (i.e., Hull & Thompson, 1981a), the authors used the AFI and a 172-item adapted version of PASS to evaluate adaptation and environmental normalization, respectively. The level of environmental normalization in a residence was positively related to the adaptive functioning of its residents, both for psychiatric residents ($r = 0.54$) and for mentally retarded residents ($r = 0.41$). In interpreting their findings, Hull and colleagues (1984) proposed a reciprocal link between more normalized environments and adaptive behaviour, with more normalized environments promoting adaptive behaviour and more competent residents shaping their environments in the direction of greater normalization.

Only one study has used PASSING, the main measure of the implementation of SRV, to consider environmental context in relation to client adaptation. In his doctoral dissertation, Ely (1991) considered the relationship between the degree of normalization of 38 community residences and the scores of 70 individuals with psychiatric disabilities on quality of life measures and social integration measures designed for the study. Results showed considerable predictive and construct validity of the PASSING measure as it related to the measures of "strong" and "weak" integration. In line with SRV principles, strong integration was conceptualized as a resident's level of social involvement with the community. It was operationalized as the frequency of social activities inside and outside the residence summed across categories of accompaniment by socially valued others (i.e., a family member or other socially valued individual other than human service personnel). In contrast, weak integration was equated with physical presence rather than true social involvement in the community, and was defined as the resident's total number of interactions outside the community residence,

regardless of with whom.

Findings showed a significant but minimal relationship between strong and weak social integration ($r = .28$). Further, strong integration was related to subjective ratings of satisfaction with family relations ($r = .29$), and weak integration was related to subjective ratings of satisfaction with finances and education ($r = .23$ and $.46$, respectively). Almost all of the PASSING subscales were positively related to the level of weak, but not strong, social integration among community residents. The author pointed out two reasons for the lack of association between PASSING scores and strong social integration. First, the small amount of social integration enjoyed by the psychiatric residents may have attenuated the correlation between PASSING scores and strong integration. Second, in accordance with PASSING procedures, the same degree of environmental normalization score was assigned to all residents living in the same setting, thereby reducing the variation in scores.

In line with SRV theory, PASSING scores were positively related to residents' appraisals of satisfaction with their living situation. Moreover, Ely (1991) observed that among the 29 family-care residences included in the sample of 38 residences, two variables were significantly related to the overall PASSING score: size and rural vs. urban location. Specifically, living in a smaller, rural setting was correlated with higher PASSING scores. Moreover, both of these variables accounted for 67% of the variance in the total PASSING score. Therefore, as with previous research with PASS (e.g., Golden, 1982; Hull & Thompson, 1981a, 1981b; Hull et al., 1984), Ely's study using the PASSING instrument demonstrated a link between SRV principles and client outcomes and underlined the importance of considering environmental variables in

program development for individuals with psychiatric disabilities.

The results of these six studies, particularly when taken in tandem with the findings from the area of developmental disabilities, provide some support for the SRV assumption that improving the environmental conditions of individuals with psychiatric disabilities will directly influence adaptation, social integration and subjective quality of life. However, as in the literature surrounding developmental disabilities, far more research on client outcomes is necessary to understand the conditions under which normalized/socially valued service settings may produce positive client outcomes. In a related way, the specific *mechanisms* by which SRV principles may relate to client outcomes remain speculative, at best. Finally, little evidence has been gathered to support the most pivotal assumption of SRV: that improved opportunities for social role development and social integration lead to improved well-being for devalued individuals.

A promising but as yet unexplored area of research that may provide a bridge between SRV theory and client outcomes is that of social networks and transactions. Support for this assertion is found in a growing body of literature on environmental context and the adaptation of individuals with psychiatric disabilities. Several studies have shown that environmental context may play a vital role in the social network transactions of people with psychiatric disabilities. In their review of the literature, Nelson and Smith-Fowler (1987) concluded that housing characteristics such as size and physical architecture may influence social interactions. Other research has also found support for this assertion in that variables such as the number of living companions, housing concerns and having a private room have been related to social integration

(Nelson, Hall, & Walsh-Bowers, 1998). Similarly, the quality of staff-client interactions and the level of autonomy and individuation afforded to clients have both been related to increased levels of involvement in various types of activities within the community (e.g., going to a shopping area, park, restaurant, community centre) for individuals with severe mental illness (e.g., Kruzich, 1985). At the neighbourhood level, several studies have found that variables such as positive response from neighbours, urban location, few complaints from neighbours, and access to community resources may be related to positive involvement in the larger community (e.g., Kruzich, 1985; Trute & Segal, 1976; Segal & Aviram, 1978).

Thus, in the relative absence of literature linking SRV principles to client outcome variables, and in light of the promising research linking environmental variables and social network transactions, the objective of the current study was to consider the importance of environmental context as it relates to the structure and function of social supports, while at the same time testing the SRV assumption that improved opportunities for social role development and social integration lead to improved well-being for devalued individuals. To provide further rationale for this research, the next section will consider studies of the social networks and social support transactions of individuals with a severe mental illness, and how these variables relate to their adaptation and quality of life.

Social Networks, Social Support, and Adaptation

The concept of social support as it relates to stress, health and well-being has emerged as one of the most frequently researched topics of the past three decades. Researchers from a variety of disciplines have proposed that social support processes have both a direct and indirect

influence on health and well-being by mediating stress, and hundreds of studies have indeed confirmed this relationship across a variety of populations and settings (for reviews see Cohen & Wills, 1985; Cohen, Coyne & Downey, 1988; Kessler, Price, & Wortman, 1985; Thoits, 1995).

Contemporary research has continued to refine the more general conceptualization of social support to include more precise frameworks that reflect both the structural and functional aspects of support (Mitchell & Trickett, 1980; Thoits, 1995). However, the burgeoning literature has not produced a clear definition of social support. Rather, social support and related terms such as social networks and social integration are used interchangeably for a broad spectrum of phenomena dealing with consequences of social relationships (House et al., 1988; Kessler et al., 1985). In general, however, *social network* refers to the structural aspects of an individual's support system, and includes the number of relationships or social roles an individual has, the frequency of his or her contact with other network members, and the density (i.e., the extent to which members of the network know one another) and multiplicity (i.e., the number of functions served by a network tie) of relationships among network members (Mitchell & Trickett, 1980).

On the other hand, *social support* typically refers to the functional aspects of a social network, including the various types of support that one may receive and give to others (Mitchell & Trickett, 1980). In general, four types of supportive transactions have emerged fairly consistently from theoretical and empirical classification efforts, although the category names often differ: (a) emotional support (i.e., listening, expressing concern and caring), (b) socializing support (i.e., engaging in support for amusement and relaxation), (c) tangible/instrumental support (i.e., sharing of tasks, providing material aid or assistance), and (d) problem-solving

support (e.g., offering advice, guidance or information) (Barrera & Ainlay, 1983; Hirsch, 1980; Vaux, Riedel, & Stewart, 1987). In addition to refining these categories of types of support and identifying their positive contributions to personal well-being, researchers have also recognized the potential for social interactions in some circumstances to have a negative effect on psychological well-being (Coyne & De Longis, 1986; Coyne & Downey, 1991; Rook, 1983).

The following section is organized around the above definitions to include a discussion of the structural (i.e., social network) and functional (i.e., social support) characteristics of support systems for individuals with psychiatric disabilities. More specifically, literature relevant to the social network characteristics, and social support transactions of individuals with psychiatric disabilities is reviewed. In addition, the literature surrounding these two concepts is considered as it relates to the personal characteristics and adaptation and well-being of individuals with psychiatric disabilities.

Social Network Characteristics and Social Support Transactions

Social network characteristics. Several studies have examined the social networks and social support transactions of individuals with psychiatric disabilities. In general, the studies characterizing social networks have demonstrated that the networks of individuals with psychiatric disabilities are somewhat impoverished, relative to those of non-disabled individuals. For example, Moxley (1988) observed that even after the first hospitalization, individuals with a chronic mental illness had one-third fewer social contacts than a non-disabled comparison group. Similarly, Erikson and colleagues (Erikson, Beiser, Iacono, Fleming, & Lin, 1989) found that individuals with a diagnosis of schizophrenia had fewer and less satisfactory social contacts than

either individuals with an affective disorder or a non-disabled comparison group.

Several other researchers have also provided descriptive information about the social network size of individuals with chronic mental illness. Using participant observation, logs of daily activity, extensive biographical interviewing, and a network profile questionnaire designed for the study, Cohen and Sokolovsky (1978) found that the average number of friends and family members included in the social network of individuals with psychiatric disabilities living in single room occupancy hotels was 10 for individuals with residual symptoms of schizophrenia, and 15 for individuals without residual symptoms of schizophrenia. Lipton and colleagues (Lipton, Cohen, Rischer, & Katz, 1981) found that individuals with schizophrenia who had been hospitalized once listed an average of 15 individuals in their network, while those who had been hospitalized numerous times listed an average of seven.

Recent research from Canada, Europe and the United States has lent further support to the observation of earlier studies that the social networks of individuals with psychiatric disabilities are smaller than those of their non-disabled counterparts (Becker et al., 1997; Estroff, Zimmer, Lachiotte, & Benoit, 1994; Goering, Durbin, Foster, Boyles, Babiak, Lancee, 1992; Goering, Wasylenki, St. Onge, Paduchak, & Lancee, 1992; Holmes-Eber & Riger 1990; Meeks & Murrell, 1997; Nelson, Hall, Squire, Walsh-Bowers, 1992; Rosenfield & Wenzel, 1997; Segal & Holschuh, 1991). Whereas average estimates of non-disabled individuals' networks range from 20 - 30 people (McFarlane, Neale, Norman, Roy, & Streiner, 1981; Pattison, Defrancisco, Wood, Frazier, & Crowder, 1975), estimates of the size of networks of individuals with psychiatric disabilities typically range from 3 - 16, across a variety of settings (e.g., psychiatric hospitals,

community care programs, supportive living environments, family residences) and methodologies.

Research has also described the social networks of individuals with psychiatric disabilities as composed of different relationships, including family, friends, living companions and professionals, with these various network segments affecting social transactions in different ways. For example, results of a social network analysis questionnaire developed by Parks and Pilisuk (1984) showed that individuals with chronic mental illness living in board-and-care homes received social and recreational support more often from friends and living companions than from family members and professionals. Likewise, residents participating in three different types of community living programs indicated on a semi-structured interview schedule that they received and gave more support to friends than family members and professionals (Nelson et al., 1992). In a similar way, Goering, Durbin et al. (1992) found that friends played an important role in the social networks of individuals with psychiatric disabilities who lived in supportive housing. Based on participant responses to the Arizona Social Support Interview (ASSIS; Barrera, 1981), results indicated a positive relationship between ratings of satisfaction with support received and number of friends in the social network.

In other studies, a relationship has also been observed between network size and social support transactions. Among individuals with chronic mental illness living in a community housing program, Earls and Nelson (1988) found a positive but small relationship between frequency of support and network size ($r = .22$), based on the results of a semi-structured interview developed for the study. Similarly, Nelson et al. (1992) found total network size to be

significantly correlated with the frequency of both positive and negative transactions provided to and received from others.

Meeks and Murrell's (1997) examination of individuals with psychiatric disabilities who were using community mental health centres also demonstrated a small but significant ($r = .11$) correlation between network size as measured on the Network Analysis Profile (Sokolovsky & Cohen, 1981) and subjective reports of frequency and satisfaction with support received. However, in contrast to previous findings demonstrating a differential relationship between network segment type and support transactions (e.g., Goering, Durbin et al., 1992; Nelson et al., 1992; Parks & Pilisuk, 1984), scores on the social support measure were unrelated to the proportions of family members, friends or professionals reported in the network. Also in contrast to previous findings, Segal and Holschuh (1991) found no relationship between information gathered on the Pattison Psychosocial Kinship Inventory (Pattison et al., 1975) regarding network size and amount of social support received by residents of a sheltered care setting. Thus, whereas several studies have established that individuals with a psychiatric disability have smaller social networks relative to their non-disabled counterparts, findings concerning the effects of network size on the nature of social transactions are considerably less clear.

Social support and reciprocity. An important but neglected topic in the area of social networks and social support transactions is the concept of reciprocity (Nelson et al., 1992). Preliminary evidence in this domain has demonstrated a lack of reciprocity in the relationships of individuals with psychiatric disabilities. Based on the results of a structured interview, Tolsdorf (1976) found that psychiatric patients reported providing less support and receiving more support

from network members than did medical patients. Similarly, Cohen and Sokolovsky (1978) found that the relationships of individuals with schizophrenia living in a single room occupancy hotel were asymmetrical in nature, based on analyses of daily activity logs, biographical interviewing and network profiles. Using a blend of structured and open-ended questions, Parks and Pilisuk (1984) also noted little evidence of reciprocity in the relationships of individuals living in board-and-care homes.

Yet, as Nelson and colleagues (1992) suggest, findings concerning a lack of reciprocity may be a reflection of the contextual aspects of the research because hospitals, board-and-care homes, and single room occupancy hotels may be oriented toward fostering dependency rather than independence in residents. In an attempt to clarify the context of reciprocity, these authors examined the relationships of former psychiatric inpatients residing in board-and-care homes, supportive apartments, and group homes. In contrast to previous findings, Nelson et al.'s (1992) analysis of semi-structured interview data demonstrated considerable reciprocity in the relationships of their participants. As would be expected, the only network sector in which reciprocity was not observed was with professionals. Taken together with past findings, these results suggest that environmental contexts, particularly one's living environment, may have a profound impact on the reciprocity characterizing the social relationships of individuals with psychiatric disabilities.

To summarize, the combined literature characterizing the social networks of individuals with psychiatric disabilities suggests that their networks are typically smaller in size than those of non-disabled individuals. Further, network characteristics have been shown to interact with

social support in several ways. Friends appear to play an important role in providing support to individuals with psychiatric disabilities - perhaps even more so than family members and professionals. Likewise, network size has been correlated with more frequent contact between members and more satisfaction with social support in several studies. Where reciprocity is concerned, recent findings demonstrate that environmental context may play a pivotal role in the amount of support that individuals with psychiatric disabilities give to others.

Notwithstanding these findings, results in this area are far from conclusive. Indeed, several studies in this area demonstrate either no correlations (e.g., Segal & Holschuh, 1991) or minimal correlations (Earls & Nelson, 1988; Meeks & Murrell, 1997) between network size, support received, and satisfaction. This lack of consistency among findings is most certainly related to the fact that virtually every study cited in this review used a different method for assessing networks, ranging from semi-structured interview questions specifically designed for the study to measures developed for use with pregnant adolescents (e.g., the ASSIS). Further, contemporary research includes only self-report data; multiple perspectives have not been sought. Gathering information from other network members (e.g., case managers, family members, friends) would provide a more balanced perspective and shed additional light on the social networks and transactions of individuals with psychiatric disabilities. In the same way, more research on the life-course dynamics (rather than the static aspects) of social support and networks would be invaluable in understanding their role in adaptation and well-being. Thus, in the absence of studies using standardized measures, multiple perspectives, and more longitudinal designs, findings about social network characteristics must be tempered with the knowledge that

research in this area is preliminary at best.

Supportive and unsupportive transactions. A second aspect of social support transactions that has received little research attention is the specific nature of support. Indeed, the very nature of the term "social support" indicates that researchers have been primarily concerned with the positive aspects of social transactions (Nelson et al., 1992). However, several researchers and theorists have suggested that the negative side of social interaction may have a profound impact on adjustment (Coyne & De Longis, 1986; Coyne & Downey, 1991; Rook, 1984).

To date, only two studies have examined both the supportive and unsupportive aspects of social transactions of individuals with psychiatric disabilities. In the aforementioned study of residents living in one of three types of community housing arrangements, Nelson and colleagues (1992) observed that network transactions were generally more supportive than unsupportive. Further, the proportion of unsupportive and supportive transactions received from friends, families and professionals did not differ, although participants reported spending more total time with friends than with family or professionals. Notably, differences in support characteristics existed between residents of different housing arrangements. Compared to residents of board-and-care, residents of group homes and homes reported more supportive transactions with more friends and professionals and a greater frequency of support received and provided.

In a subsequent study, Hall and Nelson (1996) considered the nature of social interaction in a second sample of 111 men and women living in board-and-care homes, supportive apartments, and group homes. By modifying the Inventory of Socially Supportive Behaviours (ISSB; Barrera & Ainlay, 1983) to include items probing unsupportive as well as supportive

interaction, the authors found that both types of transactions characterized the participants' relationships. Moreover, the frequency of supportive and unsupportive transactions reported was related to measures of positive and negative affect, respectively.

Thus, preliminary evidence suggests that reciprocity may be present in the relationships of psychiatric patients, but that environmental context (particularly living situation) may be a significant factor in how these relationships are played out. Indeed, several researchers have argued that considering the social context of network transactions is paramount (House et al., 1988; Shumaker & Brownell, 1984; Eckenrode & Gore, 1981). In their review of process and outcome research on community housing programs for the mentally ill, Nelson and Smith-Fowler (1987) concluded that housing characteristics, such as size and physical architectural features, are indeed related to social transactions. Similarly, Nelson and Earls (1986) found that psychiatric patients living in their own home, their parents' home, or a group home reported receiving more social support than patients living in a private apartment or rooming house. As such, housing characteristics may be a particularly important variable for future consideration in studies of social networks and transactions.

A second aspect of social network transactions requiring further study is the nature of social support - that is, the supportive and unsupportive nature of social transactions. The results of Nelson and colleagues (Hall & Nelson, 1996; Nelson et al., 1992) suggest that the networks of individuals with psychiatric disabilities are characterized by both supportive and unsupportive transactions, and that these supportive and unsupportive transactions are related to measures of positive and negative affect, respectively. However, in the presence of only two studies

examining the nature of transactions, the differential effects of these factors remain speculative.

Personal Characteristics, Social Networks and Social Support

Personal characteristics may also have an influence on the amount of social support that an individual receives and gives (Hall & Nelson, 1996). In support of this assertion, personal characteristics of individuals with psychiatric disabilities, including age, gender, diagnosis and level of social skill, have been related to aspects of their social networks and the amount and type of support they receive.

Two studies have linked age to aspects of social networks and transactions. Grusky and colleagues (Grusky, Tierney, Manderscheid, & Grusky, 1985) analysed data from the Uniform Client Data Instrument (as developed by the National Institute of Mental Health) to study demographics and the social support networks of 971 chronically mentally ill individuals participating in community support programs. Results demonstrated that older clients had smaller networks of family, community and work supports than did younger clients. The authors suggest several plausible explanations for this age effect. Older clients are less likely to be living with their parents but also less likely to have replaced parental ties with marital ties, as would be expected for those without a mental illness. Older clients may also have been hospitalized longer, which may have resulted in isolated living conditions. Finally, older clients are less likely to have employment opportunities which would bring them into contact with others in the community. Grusky et al. (1985) also observed gender differences in that women participated more than men in activities with others outside their home. In addition, women in the study scored higher on a composite measure of community adjustment designed for the study.

Baker and colleagues also observed age and gender differences in their large-scale study of 729 clients participating in a community support program (Baker, Jodrey, Intagliata, 1992). In particular, case managers affiliated with a support program interviewed their clients about their social support networks and transactions using a measure developed specifically for the study. Results of the measure indicated an inverse correlation between perceived level of support available and age: the youngest clients had the most social support available, whereas the oldest clients had the least. Despite this difference, younger clients were significantly more likely than their older counterparts to judge their social network as inadequate. Similar to the gender differences reported by Grusky et al. (1985), Baker and colleagues (1992) found that women in their sample reported more social support than men. Further, women in the sample were more likely to report increases in the amount of social support they received over the 9-month study period.

Gender differences in support transactions and support networks were also observed by Hall and Nelson (1996). Path analysis of data gathered from the ISSB (Barrera & Ainlay, 1983) and from demographic questions revealed that women clients of different community living arrangements had a higher proportion of women in their networks and reported more supportive transactions than their male counterparts. However, in addition to receiving more social support, women in the study were also more likely to report more unsupportive transactions than men. Further, gender was related indirectly to measures of positive and negative affect and meaningful activity via these social support characteristics. Women reported more positive social interaction than men which, in turn, was directly related to their higher levels of positive affect, as measured

by an adapted version of Diener and Emmons' scale (1985) and scores on the Meaningful Activity scale (Maton, 1990). However, women were also more likely to experience higher levels of negative affect, as mediated by more frequent experiences of negative interaction. Thus, while gender does not have a direct effect on adaptation, it does appear to influence adaptation indirectly through types of social transactions.

As the authors suggest, these findings point to the importance of gender processes in social interactions for individuals with psychiatric disabilities and to the salience of designing different intervention strategies for men and women - a variable that has been largely overlooked in service delivery models for individuals with psychiatric disabilities. It is unlikely, however, that these findings are exclusive to those with psychiatric disabilities. Rather, they are probably a reflection of general population findings that women are more likely than men to seek support (Schumaker & Hill, 1991), to receive the support that they need (Belle, 1987), and to have higher levels of perceived support (Sarason, Sarason, Hacker, & Basham, 1985). Also in line with the findings of Hall and Nelson (1996), studies of general population samples have found that women may experience more psychological distress than men as a consequence of social involvement (e.g., Kessler & McLeod, 1984; Belle, 1982).

A third personal variable that has been linked to support transactions and networks is psychiatric symptomatology. Research has shown that individuals who suffer from schizophrenia may be at a disadvantage socially, both in terms of network size and composition. Results of a semi-structured interview conducted by Estroff et al. (1994) with psychiatric inpatients and mentally ill clients of a community health service indicated that individuals with a

diagnosis of schizophrenia reported having fewer individuals in their social network than their counterparts with either an affective disorder or a personality disorder (10.3 vs. 12.4 and 15.8 people, respectively). In addition to smaller networks, individuals with a diagnosis of schizophrenia also had more densely kin-based networks than individuals in the other two diagnostic categories.

In the same way, Denoff and Pilkonis (1987) found that level of psychopathology and frequency of psychiatric hospitalizations were inversely related to the receipt of social support (as measured on the Network Analysis Profile; Sokolovsky & Cohen, 1981) among individuals with schizophrenia residing in supported housing programs. In addition to level of psychopathology, the authors observed that clients' level of social competence affected aspects of their social network. In particular, scores on an adapted version of the Social Skill Schedule (Goldstein, Sprafkin, & Gershaw, 1976), a measure of interpersonal and coping skills, were the strongest intra-client predictor of the size of community support network systems.

These results are supported by the findings of Mitchell (1982), who surveyed clients of an outpatient psychiatric clinic. His findings demonstrated that scores of problem-solving skill on the Means-Ends Problem-Solving Procedure (Platt & Spivak, 1975) were positively correlated with the number of intimate people reported in clients' networks and the degree of family support cited. Similarly, data gathered on participants in a community support program via the Uniform Client Data Instrument indicated a positive relationship between level of daily living skills and number of social contacts (Tessler & Manderscheid, 1982).

Thus, notwithstanding differing methodologies and client samples, results suggest that

individual characteristics may influence social network characteristics and social support transactions. In particular, being a woman, being younger, and being skilled in areas such as social competence and problem-solving may be related to size of social network and the nature of social support received. In addition, suffering from less severe symptomatology appears to be related to having a wider and more supportive network in at least two studies.

Notably, the findings surrounding gender (as stated previously) may not be exclusive to those with severe mental illnesses. In fact, they suggest that sex roles among the mentally ill are similar to those in the general population. Additional research which compares individuals with and without a mental illness is necessary for a better understanding of the effects of gender on social support variables. In the same way, personal characteristics in relation to social interactions and networks remain speculative in the absence of longitudinal data. As yet, it is unknown whether factors such as more severe psychopathology and more frequent hospitalizations are the outcomes or antecedents of impoverished social networks. Atypical behaviour (and indeed, the positive and negative symptomatology inherent to certain disorders) may in fact impede the development of close, mutually rewarding relationships (Kessler et al., 1985). Similarly, frequent hospitalizations may lead to poorly developed social networks - and vice versa.

Aside from exploring the nature of gender and symptomatology in relation to social networks and transactions, longitudinal data are also imperative in understanding how social networks change as clients age. Preliminary research suggests that older clients with a psychiatric disability may be disadvantaged relative to their younger counterparts (e.g., Baker et

al., 1992; Grusky et al., 1985). In contrast to the gender findings, research concerning age contradicts the trend in the general population toward continuity in older adults' social networks before the age of 80 (Field & Minkler, 1988; Palmore, 1981). Thus, a better understanding of how relationships change over time for people with psychiatric disabilities would be invaluable in the development of intervention strategies to improve social relations.

Social Networks, Social Support and Adaptation

Hospitalization and psychiatric symptomatology. An important and as yet unresolved question is the way in which social network characteristics and various types of social interactions (both supportive and unsupportive) are related to measures of adaptation and well-being (Hall & Nelson, 1996). Several studies have considered hospitalization and psychiatric symptomatology as outcome measures related to social support characteristics and their combined results suggest that greater network impairment is associated with increased symptomatology and prolonged illness. For example, Cohen and Sokolovsky (1978) observed that smaller networks and more dependent relationships were associated with more frequent rehospitalization in a sample of individuals with schizophrenia living in single-room occupancy hotels.

Similar findings were observed by Becker and colleagues (1997), who collected baseline interview data for a random sample of individuals who had received a diagnosis of non-organic psychosis at some time in their lives. Relationships between social network characteristics (as elicited by the Social Network Scale; Dunn, O'Driscoll, & Dayson, 1990), psychiatric symptomatology, hospitalization and community service use were studied using regression

analyses. Results demonstrated that the likelihood of being hospitalized within the six-months prior to the study increased significantly with the number of admissions in the index year and with higher scores on the Brief Psychiatric Rating Scale (Overall & Gorham, 1962). Conversely, likelihood of hospitalization decreased with an increase in network size, while the number of community services used by clients grew as the social network size increased.

The findings of Holmes-Eber and Riger (1990) differ somewhat from these results in that network composition (not network size) was related to frequency of hospitalization. Interviews with 310 chronically mentally ill individuals living in a state mental hospital were conducted to examine the relationship between number of hospitalizations and network size and composition. Based on the social network questions developed for the study, results indicated no relationship between number of hospitalizations and size of the social network. However, regardless of diagnosis or symptom severity, patients who had been hospitalized more frequently had fewer friends and relatives and more mental health professionals in their networks than individuals who had been hospitalized less frequently. In addition, frequent readmissions were related to a higher percentage of short-term (i.e., less than 1 year) relations.

Thus, some evidence suggests that the process of hospitalization may be related to social network characteristics, including size and composition. As mentioned previously, however, it is difficult to ascertain the nature of the relationship between social network characteristics, symptom severity and frequency of hospitalization in the absence of longitudinal data. It is plausible that having a smaller social network that includes a disproportionate number of professionals may lead to more severe symptomatology and more frequent hospitalizations.

Equally plausible, however, is the theory that the size and composition of social networks may be eroded by a repeated cycle of hospital readmissions.

In addition to a lack of clarity surrounding the nature of the relationship between social network characteristics, psychiatric symptomatology, and frequency of hospitalization, there is a growing recognition that successful adaptation means more than being asymptomatic, out of the hospital and doing some kind of work (Nelson & Smith-Fowler, 1987). As a result, a shift in the measurement of adaptation has occurred - from hospitalization and severity of symptomatology to an increased emphasis on subjective measures of well-being and integration into the community. Concurrent with this emphasis on subjective measures of adaptation, the role of social support transactions (in addition to network characteristics) has been underscored by a growing number of researchers. In the following section, studies examining social support transactions in relation to subjective outcome measures will be reviewed.

Subjective measures of well-being and integration. Several studies have established a link between aspects of social support and subjective measures of outcome, including well-being, life satisfaction and positive and negative affect. For instance, Kennedy (1989) studied the effects of social competence (i.e., verbal skills, skill in activities of daily living, and appropriateness of appearance), perceived social support, and their interaction in predicting the community integration (i.e., access to basic, personal and social resources, and actual participation in the community) and life satisfaction of 159 chronically ill adults living in supervised and supportive apartments and in single room occupancy hotels. Based on responses to measures modified for the study, significant interactions were observed between social

competence and perceived emotional support, and community integration and life satisfaction measures. Individuals who had higher levels of social competence or emotional support reported increased community integration and increased life satisfaction. On the other hand, individuals with lower levels of social competence or perceived emotional support and an increase in community integration did not report increased life satisfaction. In addition to indicating a positive relationship between perceived social support and life satisfaction, the results of this study suggest that community integration may not be an appropriate goal for all individuals with chronic mental illness. Rather, community integration may be viewed as a continuum, where individuals with decreased social support and social competence may be encouraged to participate less until their skill levels and social supports have been enhanced (Kennedy, 1989).

Baker and colleagues (1992) also considered perceived social support in relation to quality of life ratings for 729 severely mentally ill adults enrolled in a community support service program. Notably, the living arrangements of clients in the sample were not specified. Participants were surveyed on two occasions, nine months apart, about the availability and adequacy of their social support system using a measure designed for the study. The interview also included a measure of affect (Bradburn Affective Balance Scale; Bradburn, 1969; cited in Baker et al., 1992) and life satisfaction (Satisfaction with Life Domains Scale, Baker & Intagliata, 1982). Availability of social support was significantly correlated with positive affect over time, but not with negative affect at either point. However, inadequacy of social support was significantly related to negative affect at both assessment times, and both availability and adequacy of social support were significantly related to life satisfaction scores at both times.

Thus, the results of this study suggest that specific aspects of social support, namely its availability and adequacy, may play a role in increased life satisfaction and positive affect.

In one of only two studies in this area to use a control group, Aubry and Myner (1996) studied 51 persons with psychiatric disabilities living in specialized community housing programs and compared them to a matched sample of 51 non-disabled community residents on aspects of community integration and subjective quality of life. In this case, a broad definition of community integration was adopted and included measures of physical integration (i.e., a modified version of Segal & Aviram's [1978] external integration scale), psychological integration (i.e., the Sense of Community scale as developed by Perkins, Florin, Rich, Wandersman, & Chavis, 1990), and social integration (i.e., a modified version of the scale developed by Aubry, Tefft, & Currie, 1995). Subjective quality of life was measured using the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). Both groups showed similar levels of physical presence and psychological integration in the neighbourhood. However, persons with psychiatric disabilities reported markedly lower levels of social contact with neighbours and lower life satisfaction than community residents. Thus, despite their physical presence in the community, individuals with psychiatric disabilities in the sample were not socially integrated. Rather, their social isolation suggested that they had taken on socially marginalized roles in their neighbourhood (Aubry & Myner, 1996). Notably, greater social integration was also related to better quality of life for the individuals with psychiatric disabilities ($r=.25$), but not for non-disabled community residents.

In one of the only studies to consider the relationship between social network characteristics and quality of life ratings directly, Dufort, Dallaire, and Lavoie (1997) used the Satisfaction with Life Domains Scale (SWLDS; Baker & Intagliata, 1992) and a global measure of “social support network” designed for the study (which included network size, frequency of contact, degree of reciprocity, and composition) to interview 122 individuals with psychiatric disabilities living in the community. Results of a regression analysis indicated that the social support variable accounted for more than 16% of the variance in the global quality of life score. Based on their findings, the authors concluded that social network characteristics play an important role in increasing life satisfaction. Nevertheless, because Dufort et al. (1997) collapsed multiple social network components into one variable, their results offer no information about the specific network characteristics most important in predicting quality of life.

Caron and colleagues (Caron, Tempier, Mercier & Leouffre, 1998) also studied the relationship between satisfaction with social support and quality of life for individuals with and without a psychiatric disability. In particular, the Social Provisions Scale (Cutrona & Russell, 1987) and the SWLDS (Baker & Intagliata, 1982) were used to measure satisfaction with support and quality of life, respectively, for 60 psychiatric outpatients, 79 social assistance recipients and 266 individuals in the general population. Overall, psychiatric patients reported significantly less satisfaction with all components of social support received (and particularly with attachment and nurturance) than both the general population sample and the social assistance recipients. In line with these findings, the psychiatric patients’ quality of life ratings on personal/intimate

relationships were significantly lower than the other two groups. In contrast to Aubry and Myner's (1996) findings, however, overall ratings of quality of life for the psychiatric patients interviewed by Caron and colleagues (1998) were similar to their general population counterparts and higher than the low-income group on the dimensions of housing/neighbourhood and autonomy. Caron et al. also noted moderate, positive correlations between the total support received and the overall quality of life rating for the psychiatric patients ($r=0.45$, $p<0.01$), general population ($r=0.29$, $p<0.01$) and the social assistance recipients ($r=0.41$, $p<0.01$). Here too, results differ from those of Aubry and Myner (1996), who found a relationship between social support (as exchanged with neighbours) and quality of life for individuals with psychiatric disabilities, but not for individuals in the general population.

The research protocol of Nelson and colleagues (Earls & Nelson, 1988, Nelson et al., 1992; Hall & Nelson, 1996) has also demonstrated an association between aspects of social support and positive and negative affect of individuals with psychiatric disabilities. Using a modified version of the ASSIS (Barrera, 1981), Earls and Nelson (1988) considered social network size, support satisfaction, and frequency of support in relation to positive and negative affect as measured on the Bradburn Affect Balance Scale (Bradburn, 1969; cited in Earls & Nelson, 1988). The participants were 89 people participating in a community housing program who had been hospitalized at least twice and had been diagnosed with schizophrenia, major depression, or bipolar disorder. In line with the findings of Baker et al. (1992) concerning the availability of support, Earls and Nelson (1988) observed that reported frequency of support was positively correlated with positive affect. That is, clients who reported a greater frequency of

interaction with others had higher levels of positive affect. In contrast, reported satisfaction with support was inversely correlated with negative affect, indicating that those who reported greater satisfaction with their support networks tended to have lower levels of negative affect.

In discussing their findings, Earls and Nelson postulate the usefulness of a "two-factor" theory of emotional well-being in relation to the study of social support and adaptation of individuals with psychiatric disabilities. In brief, the theory suggests that supportive transactions are related exclusively to positive affect, while unsupportive transactions are related only to negative affect. In support of this theory, Nelson and colleagues (1992) found that providing emotional support to others was related to increased levels of positive affect, community integration and mastery. Also consistent with the theory, the authors found that providing negative transactions to others was associated with greater levels of negative affect.

Noting a lack of research which has found a relationship between social network measures and subjective adaptation measures, coupled with the positive relationship demonstrated between social support indices and subjective adaptation measures, Hall and Nelson (1996) tested a mediational model of social support. Their model hypothesized that social network characteristics (such as size) have an indirect effect on adaptation via social support. To test the model, 111 participants living in supportive apartments, group homes or board and care homes completed an interview protocol including measures of social network characteristics, social support (ISSB, Barrera & Ainlay, 1983), and positive and negative affect (Diener & Emmons, 1985).

In support of the proposed mediational model, the authors found that positive social support mediated the relationship between the proportion of women in participants' networks and positive affect. Specifically, the more women in a network, the more positive social support participants received. In turn, positive social support was positively correlated with positive affect. A second finding also supported the idea of a mediational model of social support. Women in the sample reported more negative social interaction than men, which in turn was directly related to negative affect. Thus, the authors suggest that while an individual's gender and the proportion of women in their network do not have direct effects on adaptation, they may influence adaptation indirectly through social supports.

In summary, several studies have shown a relationship between social support and measures of subjective well-being. Specifically, the nature of support (i.e., emotional), and perceptions of its availability and adequacy have been linked to measures of life satisfaction and positive affect. Further, the findings of Caron et al. (1998) demonstrate that psychiatric patients are less satisfied with their social supports than individuals in the general population. However, the nature of life satisfaction ratings among those with and without psychiatric difficulties is less clear, with Aubry and Myner (1996) suggesting a difference between the two groups, and Caron et al. (1998) suggesting no difference. The research of Nelson and colleagues (Hall & Nelson, 1996) provides preliminary evidence for a mediational model of social support, in that characteristics of one's social network (e.g., proportion of women in the network) may be indirectly related to positive and negative affect via positive social support and negative social interaction. In addition to using a more sophisticated data analysis, the research of Nelson and

colleagues (Earls & Nelson, 1989, Hall & Nelson, 1996) departs from previous research because it is grounded in a theoretical understanding of the social support networks and interactions of individuals with psychiatric disabilities.

Notwithstanding the contributions of these studies, some limitations apply. As with the bulk of literature surrounding the social support networks and transactions of individuals with psychiatric disabilities, the research examining outcomes associated with social support transactions is marred by a lack of consistency, both in conceptual definition and methodology. Virtually all of the studies in this area use different definitions of support and its components (i.e., emotional, problem-solving, practical), in addition to different measures of support. Similarly, the well-being measures used in the studies vary greatly, and range from specific aspects of emotion (e.g., positive and negative affect) to vague, general concepts such as quality of life and community integration. As such, differing results such as those noted by Aubry and Myner (1996) and Caron et al. (1998) may in fact be due to divergent methodology and conceptual definitions of support and integration.

In addition, the findings of these studies must be tempered with the knowledge that the vast majority of participants in the research were residents of supportive living arrangements or specialized congregate housing programs. Although these programs have been instrumental in facilitating community integration of persons with psychiatric disabilities across North America (Trainor, Morell-Bellai, Ballantyne, & Boydell, 1993), they serve a small number of persons with psychiatric disabilities. In fact, homelessness, overnight shelters, and nursing homes comprise the most common living situations for these individuals (Mechanic & Rochefort, 1990). Although it has not been investigated, it is plausible that individuals living in these settings have

social networks and transactions that differ from those of their peers in housing programs (Flynn & Aubry, 1999). As such, future research incorporating individuals from a wider spectrum of living arrangements is necessary to complete our understanding of the social support transactions of individuals living with severe mental illness.

Rationale for the Current Study

Based on the literature reviewed, the goal of the current study was to propose and test a model of the relationship between the following variables for people with psychiatric disabilities: a) degree of SRV in the living environment, b) social network characteristics and transactions, and c) subjective ratings of satisfaction with living situation and support received from family and non-family, and overall life satisfaction. In particular, the objectives of the study were threefold. The first objective was to further empirical testing of SRV theory within the domain of mental health. As discussed previously, few studies have tested the applicability of SRV theory to individuals who have psychiatric disabilities, despite the fact that the tenets of the theory are analogous to those driving contemporary mental health policy and programming.

In a related way, the second objective of the proposed study was to add to the literature on the social networks and transactions of individuals with psychiatric disabilities. Aside from contributing to the limited knowledge of social networks and processes for this population, research examining these characteristics is especially timely given several current trends in the mental health system (Carling, 1995). First, as part of a growing civil rights movement, people with psychiatric disabilities are challenging current mental health treatment practices and expressing their preferences to be treated like other non-disabled citizens. Second, decreasing resources for professional supports necessitate that natural support networks be maximized.

Lastly, a growing concern for consumer satisfaction has highlighted the sense of isolation and loneliness that people with psychiatric disabilities sometimes feel, and has emphasized these issues as central to their quality of life.

A third research objective was to examine the relationship between environmental context and social transactions, and how these two variables predict subjective measures of satisfaction with living situation, support received and overall life satisfaction. Specifically, an examination of how the degree of SRV in a residential environment relates to support transactions, satisfaction with living situation, support received and overall life satisfaction was undertaken.

Finally, in addition to making a scholarly contribution to the literature surrounding SRV theory, social networks and transactions and quality of life for individuals with psychiatric disabilities, it is hoped that this study will make a contribution by enhancing understanding of the factors that foster adaptation to community living among individuals with psychiatric disabilities. In particular, it is hoped that testing the tenets of SRV theory can lead to a better understanding of how to apply or modify its principles in designing and implementing a wide variety of programs for people with psychiatric disabilities. Similarly, a better understanding of how residential characteristics relate to measures of well-being is seen as important in designing housing programs. Finally, it is hoped that learning more about how social networks and transactions are related to well-being measures can lead to program practices which strengthen the adaptation and reintegration of these individuals into community life. In the following section, the model proposed and tested in the current study to meet these objectives is detailed.

Research Model & Hypotheses

The path model tested in the present study is depicted in Figure 1. This recursive model specifies a series of asymmetric paths between three sets of variables: environmental characteristics (i.e., degree of SRV in the environment and network size), transactional characteristics (i.e., positive social support and negative social interaction) and psychological characteristics (i.e., satisfaction with support received from non-family and family members and overall life satisfaction). Five research questions and corresponding hypotheses were posed to address the paths among the three sets of variables, after the effects of gender, age and current level of functioning were controlled. In addition to these five questions, three exploratory research questions were posed.

Research Question 1

At the environmental level, after controlling for age, gender, and level of functioning, does degree of SRV in one's living environment contribute to more opportunities for *both* positive and negative social interaction?

Hypothesis 1a. In line with SRV theory, it was predicted that settings more closely reflective of culturally valued analogues (i.e., societally valued practices which occur frequently in the valued sector of society, with which most members of the society would be familiar and of which they would hold positive expectations and images, and which constitute a valued parallel to a practice performed by or with devalued people) would afford more opportunities for social interaction, and therefore be related to the receipt of more positive social support.

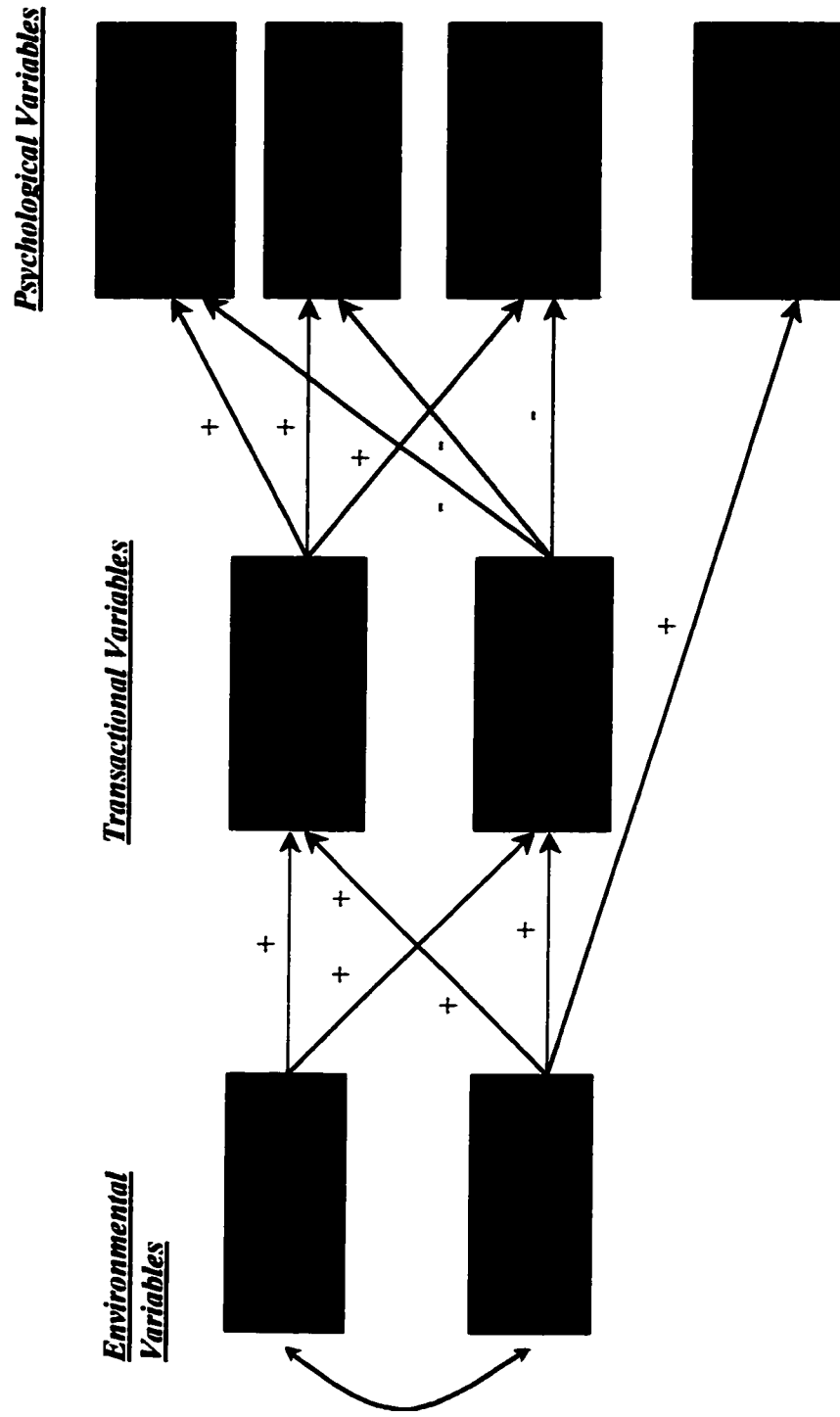


Figure 1. Path model of relationship between environmental variables, transactional variables and psychological variables.

Hypothesis 1b. Also in line with SRV theory, it was predicted that settings more closely reflective of culturally valued analogues would afford more opportunities for social interaction, and therefore be related to the receipt of more negative social interaction.

Research Question 2

After controlling for age, gender, and level of functioning, does degree of SRV in the living environment contribute to greater subjective satisfaction with living situation?

Hypothesis 2a. In response to the second question, it was anticipated that individuals who experienced a greater degree of SRV in their living environment would also express greater satisfaction with their living situation.

Research Question 3

After controlling for age, gender, and level of functioning, is network size related to the receipt of positive social support and negative social interaction?

Hypothesis 3a. Regarding the third question, it was hypothesized that individuals with a larger social network would experience more positive social support.

Hypothesis 3b. In addition, it was posited that individuals who had a larger social network would experience more negative social interaction.

Research Question 4

After controlling for age, gender and level of functioning, do transactional variables mediate the relationship between degree of SRV in the environment and psychological variables?

Hypothesis 4a. In response to the fourth question, it was hypothesized that positive social support would play a mediating role between degree of SRV in the environment and overall life satisfaction. Hence, it was predicted that individuals who lived in more socially

valued environments would report more positive social support and, in turn, greater overall life satisfaction.

Hypothesis 4b. Also in line with the fourth question, it was anticipated that positive social support would play a mediating role between degree of SRV in the environment and satisfaction with support from non-family members. As such, it was predicted that individuals who lived in more socially valued environments would report more positive social support and greater satisfaction with support received from non-family members.

Hypothesis 4c. Similar to the first two hypotheses, it was predicted that positive social support would play a mediating role between degree of SRV in the environment and satisfaction with support from family members. Thus, individuals who lived in more socially valued environments were expected to report more positive social support and greater satisfaction with support from family members.

Hypothesis 4d. Parallel to the predictions surrounding positive social support, it was predicted that negative social interaction would act as a mediating variable between degree of SRV in the environment and life satisfaction. In particular, it was anticipated that those who lived in more socially valued environments would report experiencing more negative social interaction. In turn, it was expected that reports of more negative social interaction would be related to lower life satisfaction ratings.

Hypothesis 4e. It was also predicted that negative social interaction would mediate the relationship between degree of SRV in the environment and satisfaction with support received from non-family members. Specifically, it was hypothesized that individuals who lived in more socially valued settings would report more negative social interaction. In turn, it was predicted

that more negative social interaction would be related to reports of less satisfaction with support received from non-family members.

Hypothesis 4f. Finally, it was predicted that negative social interaction would act as a mediating variable between degree of SRV in the environment and satisfaction with support received from family members. Therefore, it was hypothesized that individuals who lived in more socially valued settings would report more negative social interaction. In turn, it was predicted that more negative social interaction would be related to lower ratings of satisfaction with support from non-family members.

Research Question 5

After controlling for age, gender, and level of functioning, do transactional variables mediate the relationship between network size and psychological variables?

Hypothesis 5a. In regard to network size, it was hypothesized that positive social support would play a mediating role between this variable and overall life satisfaction. Therefore, it was predicted that individuals who had larger social networks would report more positive social support and greater overall life satisfaction.

Hypothesis 5b. Also related to the fifth research question, it was anticipated that positive social support would play a mediating role between network size and satisfaction with support received from non-family members. As such, it was anticipated that individuals who had larger social networks would report more positive social support and greater satisfaction with support received from non-family members.

Hypothesis 5c. Similar to the first two hypotheses, it was predicted that positive social support would play a mediating role between network size and satisfaction with support received

from family members. Thus, individuals who have larger social networks were expected to report more positive social support and greater satisfaction with support from family members.

Hypothesis 5d. Similar to the predictions surrounding positive social support, it was predicted that negative social interaction would act as a mediating variable between network size and life satisfaction. In particular, it was anticipated that those who had a larger social network would report experiencing more negative social interaction, which would be related to lower ratings of life satisfaction. This prediction was in keeping with the results of previous research which has shown: (a) an indirect link between network characteristics and outcome measures via social transaction characteristics, and (b) a positive relationship between negative social interaction and outcome measures such as negative affect (e.g., Hall & Nelson, 1996).

Hypothesis 5e. It was also predicted that negative social interaction would mediate the relationship between network size and satisfaction with support received from non-family members. Specifically, it was predicted that individuals who had larger social networks would report more negative social interaction, and that more negative social interaction would be related to reports of less satisfaction with support received from non-family members.

Hypothesis 5f. Finally, it was predicted that negative social interaction would act as a mediating variable between network size and satisfaction with support received from family members. Therefore, it was hypothesized that individuals who had larger social networks would report more negative social interaction. In turn, more negative social interaction was predicted to be related to lower ratings of satisfaction with support from non-family members.

Exploratory Research Questions

In addition to the five research questions outlined above, the following 3 exploratory research questions were posed, based on the review of literature:

- 1) Does total network size vary with gender?
- 2) Does amount of positive and negative social interaction experienced vary with gender?
- 3) How is the proportion of women in an individual's social network (i.e., total number of family, friends, living companions and professionals) related to the receipt of positive social support and negative social interaction?

Method

Context for the Current Study

The present study was conducted as part of a larger project that is intended to develop a measure of competencies of community support providers working with persons with psychiatric disabilities (Aubry, 1997). The first stage of the larger project involved developing a list of necessary competencies for support providers working with individuals with a psychiatric disability. The second stage of the larger project refined the initial list of competencies and developed a rating measure of support provider competencies. The current phase of the larger project is designed to validate the measure of support provider competencies by testing correlations between support providers' rated competency level and individual client measures of satisfaction with services, degree of SRV, quality of life, and community integration. Thus, the present study differed conceptually from the larger study in that it focuses uniquely on testing the relationship between SRV theory, social support networks and transactions and measures of

client well-being.

Participants

For the present study, a convenience sample of 73 clients was drawn from six community agencies providing case management services to 341 individuals as part of the Mental Health Community Support Services of Ottawa-Carleton (MHCSS) in Ontario, Canada (see Appendix A). The sample was one of convenience in that clients were informed of the study by their case manager, who in turn gave interested clients' contact information to the researchers. Therefore, whether clients were initially approached about the study depended on the case manager's judgement of variables such as client functioning (i.e., his or her ability to participate in two separate interviews with researchers), receptivity to participation in a research study (i.e., comfort level in interacting with new individuals) and ease of access (whether the client could be contacted directly by the researchers, particularly if she or he did not have a telephone).

The MHCSS programs assign case managers as one-to-one support providers to clients with a psychiatric disability. The programs are based on a combination of the strengths and psychosocial rehabilitation approaches to case management (see Appendix A). The case manager assists clients in identifying goals for service, developing an individual service plan, and meeting the specified goals by providing support, counselling, advocacy, and linking to other resources. The service is designed to be portable, flexible, and permanent, with the goal of enabling individuals to become more integrated into their community and enjoy an improved quality of life (see Appendix A). Typically, case managers provide service to 15-20 clients (Marnie Smith, Program Coordinator, Canadian Mental Health Association, July 25, 2000).

Individuals who participate in the MHCSS program meet three basic eligibility criteria, corresponding to the Ontario Ministry of Health (1988) guidelines for services for persons with psychiatric disabilities: (a) they must demonstrate a current diagnosis (or a pattern of behaviours indicative of a severe mental illness) such as major affective disorder, schizophrenia, personality disorder, paranoia and/or other psychoses; (b) the disorder must interfere with the person's capacity to organize and complete the activities of daily living; and (c) the duration of the disability may be based on a severe first episode, or an illness of a more chronic nature.

At the time of the study, the MHCSS comprised eight programs offering case management services. However, participation was sought from clients in only six of the eight MHCSS programs because of language barriers (i.e., the case manager served clients who did not speak English) or because repeated efforts to contact the program case manager were unsuccessful. Client participation was also limited within a third program because two of ten case managers were relatively new to their positions (i.e., 6 months or less) and therefore did not meet inclusion criteria for the larger context of the study (i.e., to develop a measure of case manager competencies). Thus, although a total of 341 clients were participating in the MHCSS case management programs at the time of the study, the participant pool was limited to approximately 289 clients across six programs (i.e., 17 case managers, each with an average of 17 clients per caseload). Of these 289 individuals 73 participated, representing 25% of the client population.

Measures

In the following sections, the measures used in the study will be detailed. In particular, the method for collecting demographic variables will be explained, and the measures used in the

study will be described in the order they appear in the hypothesized path model.

Demographic variables. Information about client age and gender was collected via the first of two semi-structured interview protocols (see Appendix B, p. 1). This demographic information was collected both for descriptive purposes and to control for these characteristics in testing the proposed model. Clients were also asked to provide information on their psychiatric diagnosis (see Appendix B, p. 3). Notably, however, this variable was not included in the proposed model as a control. Although a link between client diagnosis, social network characteristics and social support has been demonstrated (e.g., Denoff and Pilkonis, 1987; Estroff et al., 1994), past research has used hospital charts and/or psychiatric evaluations to ascertain diagnosis. In contrast, information about MCHSS clients' diagnoses is not gathered systematically. Rather, subjective information about diagnosis may be provided by a number of informants (e.g., client, family members, family physician, other community service professionals). Thus, short of completing a formal diagnostic assessment with each client (which was not the focus of the current study), no reliable or systematic data surrounding diagnosis were available for analysis.

The Global Assessment of Functioning Scale. Similar to age and gender, clients' current level of functioning as measured on the Global Assessment of Functioning Scale (GAF) was used as a control variable in testing the proposed model. The GAF scale (see Appendix C) requires raters to consider an individual's psychological, social and occupational functioning on a hypothetical continuum of mental illness and mental health scored from 1 (suicidal acts, persistent danger of hurting self or others) to 100 (superior functioning). The GAF scale is a slightly modified version of Endicott and colleagues' Global Assessment Scale (Endicott,

Spitzer, Fleiss, & Cohen, 1976), and is included in the fourth version of the Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 1994).

Although no studies have considered the psychometric properties of the modified GAF scale, several researchers have determined good reliability and validity for its precursor, the GAS. In a series of five studies with different groups of psychiatric consumer/survivors, the GAS demonstrated intraclass reliability coefficients ranging from .61 to .85. In addition, good concurrent validity, sensitivity to change, and predictive validity have been demonstrated for the GAS (Endicott, et al., 1976). For purposes of the present study, independent ratings for each client were made by the two interviewers who conducted the first interview, and an average GAF score for each client was calculated.

SRV measure. The degree of implementation of SRV principles in participants' living environments was assessed using a semi-structured interview protocol for clients (Appendix B) and for staff (Appendix D), based on the PASSING (Program Analysis of Social Services' Implementation of Normalization Goals) manual (Wolfensberger & Thomas, 1983). In line with SRV theory, a PASSING evaluation assesses two major dimensions of SRV theory: client social image-enhancement and client competence-enhancement, in four program areas: physical settings (i.e., the service facility and neighbourhood in which the program is located), service-structured groupings and interpersonal relationships, service-structured activities, and miscellaneous other issues. The original instrument comprises 42 objective ratings which are scored on a scale of 1- 5, where 1 is "very poor" and 5 is "near-ideal" service quality. A total PASSING score is obtained by summing across all 42 ratings. Five sub-scale scores are also calculated from the 42 PASSING ratings: Program Relevance (1 rating), Program Intensity (6

ratings), Program Integrativeness (9 ratings), Program Image Projection (19 ratings), and Program Felicity (7 ratings).

For the purposes of this study, a shortened version of the PASSING rating system was used to evaluate clients' living environments in accordance with SRV principles. The analysis of the participants' homes was considered relevant in terms of service provision, given that the mandate of the MHCSS case management program is to provide clients with a range of flexible support services and to assist them with daily living needs, including those related to housing. As such, it was assumed that housing needs fall under the purview of the MHCSS, and that an analysis of the service's implementation of SRV goals (as reflected by the clients' housing arrangement) was valid.

The shortened version of the PASSING system used in the present study was based on the three factor-based subscales developed by Flynn and colleagues (1999). Results of the exploratory and confirmatory factor analyses of 633 PASSING program evaluations revealed that 95% of the variance in the total, 42-item PASSING score could be represented adequately by 26 items grouped into three factors. Consistent with the conceptual basis of SRV, Factor 1 (Program) reflects the content of the service evaluated with PASSING by capturing image-related and competency-related aspects of the program. Factor 2 (Setting) measures the physical location of the service setting, including building and neighbourhood characteristics. Factor 3 (Accessibility) measures the degree to which the service provides ready access to clients and their families, to the public, and to a range of community resources (e.g., banks, stores, restaurants, leisure facilities).

Given the emphasis in the present study on social support transactions, only the Program factor score of the PASSING measure was included in the model. This factor includes 14 ratings that assess the content (rather than structure) of a service program. A high rating on this factor indicates that a program adheres to SRV principles by, for example, integrating participants with valued citizens, encouraging frequent personal interactions and relationships between clients and more valued and competent persons, and encouraging positive interactions among clients, service staff and members of the public (Flynn et al., 1999). The Program subscale is calculated by summing the weighted scores (as given on the PASSING scoresheet) of all the items comprising the factor (Wolfensberger & Thomas, 1983). The weighted score may also be expressed as a percentage of the total maximum weighted score possible on the subscale by using the following formula (Flynn et al., 1999):

$$\text{percentage score} = ((462 + \text{weighted score}) / 924) * 100$$

Thus, for purposes of testing the proposed model, the percentage of the total maximum weighted score on the program subscale was used as the measure of the degree of implementation of SRV principles in clients' living environments.

In the absence of a standardized interview protocol to accompany the PASSING manual, semi-structured client and staff interview protocols were created for use in the present study (see Appendices F, H). These interview protocols were developed by a team of researchers trained in SRV principles and the use of PASSING. Further, the interview protocol is based on the detailed criteria outlined in PASSING for the 26 items identified in Flynn and colleagues' (1999) factor analyses. The clarity and conciseness of these interview protocols were established via pilot testing with 3 individuals who have a psychiatric disability and one case manager employed by a

MHCSS program.

In line with the original version of PASSING, ratings for each client were completed by teams of 2 trained evaluators, based on detailed criteria and guidelines outlined in the PASSING manual. Team members rated each of the 26 criteria independently on the basis of case manager and client interviews and observations of the service setting (i.e., the client's home). Following the field visit to the client's home and separate ratings by PASSING evaluators, a PASSING conciliation process was held. At this time team members discussed and resolved discrepancies in ratings and arrived at a consensus of how well the case management service scored on each of the 26 ratings. For the present study, both pre-conciliated and post-conciliated PASSING scores were recorded for each client.

Several unpublished studies using the original 42-item PASSING have demonstrated high discriminant validity and internal reliability values, both for the total instrument and for the four subscales (for a review, see Flynn, 1999). Similarly, findings of an analysis of 213 PASSING evaluations conducted in Canada, the United States, and the United Kingdom (Flynn et al., 1991) demonstrated strong internal consistency for the instrument ($\alpha = .89$). In the same study, intraclass correlations computed on individual raters' preconconciliation data also indicated excellent levels of interrater reliability for the measure (at or above .90), as based on the average computed across raters in teams of 5-9 members. For measuring the degree of implementation of SRV in human services, PASSING appears to provide a program evaluation tool that is reliable and valid.

Social network measure. Following the semi-structured interview protocol of Nelson and colleagues (Hall and Nelson, 1996; Nelson et al., 1992), client participants were asked to

generate a list of the important individuals in their social network with whom they had been in contact with during the nine months prior to the interview, including family members, living companions (if relevant), friends, and professionals/community service workers. In each category, respondents were asked to provide the initials of the network contact, his or her role (e.g., parent, sister, case manager, fellow patient), sex, and whether or not they had a psychiatric disability (see Appendix E). For each client, the number of individuals reported was summed across networks to create a total network score. Notably, Nelson and colleagues (1992) found the following test-retest reliability coefficients for the measure using a sample of 39 university students: family (.94), friends (.83), professionals (.73), and total (.89).

Social support measure. In the absence of an established social support measure examining both supportive and unsupportive transactions, Hall and Nelson's (1996) modified version of Barrera and Ainlay's ISSB (1983) was used to collect data on positive social support and negative social interaction. The scale includes 28 items organized into 4 subscales, each with 7 items. Items from the original ISSB comprise two subscales measuring social support (i.e., *positive emotional support* and *positive problem-solving support*). Two subscales have also been added to the modified version of the scale by Hall and Nelson (1996) to measure negative social interaction (i.e., *emotional abuse*, and *avoidance-oriented support*).

Items on the scale are rated as to how frequently they have occurred in the past month on a five-point scale ranging from "not at all" to "every day" (see Appendix F). The scale yields two composite scores (ranging from 14-70): one score for each of positive social support and negative social interaction. Thus, the Positive Social Support variable is a composite of the positive emotional support and positive problem-solving items, and the Negative Social Interaction

variable is a composite of the emotional abuse and avoidance-oriented support items.

Research with university students and pregnant adolescents using the original version of the ISSB (Barrera, 1981) has demonstrated excellent internal consistency values for the social support subscales ($\alpha = .93$, and $.92$, respectively). In the university student sample, a significant correlation ($r = .36$) between the ISSB and the Cohesion subscale of the Moos Family Environment Scale (Moos, Insel, & Humphrey, 1974) has also demonstrated reasonable convergent validity for the ISSB (Barrera, 1981). Similarly, research using the modified ISSB (Hall & Nelson, 1996) has demonstrated good internal consistency for both the positive social support subscales and the negative social interaction subscales ($\alpha = .88$ and $.83$, respectively).

Life satisfaction measure. To assess participants' satisfaction with their overall life situation the Satisfaction with Life Scale (SWLS, Diener et al., 1985; Pavot & Diener, 1993) was used. The SWLS was developed to assess the respondent's satisfaction with his or her life as a whole, and does not assess satisfaction with life domains such as health or finances but allows subjects to integrate and weight these domains in whatever way they choose (see Appendix G). The scale asks respondents to read five statements pertaining to life satisfaction and rate them on a scale ranging from 1 ("strongly disagree") to 7 ("strongly agree"). Scores on the SWLS may be interpreted as absolute or relative. For example, a score of 20 represents the neutral point on the scale (the point at which the respondent is about equally satisfied and dissatisfied with his or her life). Scores between 21 and 25 represent *slightly satisfied*, and scores between 15 and 19 represent *slightly dissatisfied*. In the same way, scores between 26 and 30 represent *satisfied* and scores from 5 to 9 represent *extremely dissatisfied*.

Normative data for the SWLS are available for diverse populations, including older adults, prisoners, individuals under inpatient care for alcohol abuse, abused women, psychotherapy clients, elderly caregivers of spouses with dementia, persons with physical disabilities and college students (Pavot & Diener, 1993). The SWLS has shown strong internal reliability, with Cronbach alpha coefficients ranging from .79 to .89 in a variety of samples, and good test-retest reliability for temporal intervals up to 4 years (see Pavot & Diener, 1993 for a review of studies using the SWLS). Moreover, the SWLS has shown reasonable convergent validity with other measures of subjective well-being and life satisfaction (Diener et al., 1995), and negative correlations with clinical measures of distress (Pavot & Diener, 1993).

Satisfaction measures - support from family and non-family and living situation.

To measure satisfaction with social support received, the subjective portion of the social support and family domains of the the Quality of Life Interview was used (QOLI; Lehman, 1988). Likewise, the living situation subscale of the QOLI was used to ascertain clients' satisfaction with their living environment. The QOLI is designed to assess the domain-specific life circumstances of individuals with severe mental illness. In particular, the measure provides a broad based assessment of the recent and current life experiences of persons with severe mental illness in eight life domains: living situation, daily activities and functioning, family relations, social relations (not including family), finances, work and school, legal and safety issues, and health.

Within each life domain, questions are first posed about objective quality of life, and then about subjective quality of life (i.e., the satisfaction level of the respondent with the life domain). The subjective quality of life questions in each domain of the QOLI are measured using a 7-point

scale ranging from "Terrible" (1) to "Delighted" (7), and scale scores are derived by computing the average of the scale items. In keeping with the focus of the present study on environmental characteristics and social support, only the subjective ratings of satisfaction with living situation, family relationships, and social relationships were used as satisfaction measures (Appendix H).

The QOLI has been used to investigate the quality of life of chronically mentally ill individuals in a variety of settings (Lehman, 1988; Lehman, Rachuba, & Postrado, 1995; Lehman, Slaughter, & Myers, 1991, 1992), and its psychometric properties have been examined extensively. Internal consistency of the subjective social and family relations scales has been very high, with demonstrated coefficient alpha values of .85 and .89, respectively (Lehman, 1988). Similarly, internal consistency of the satisfaction with living situation subscale is high, with a demonstrated coefficient alpha value of .83 (Lehman, 1988). Construct and predictive validity of the QOLI has also been demonstrated by confirmatory factor analyses (Lehman, 1983).

Procedure

From September 1998 until September 1999, 17 case managers from six MHCSS programs informed their clients about the study. With their permission, the names and telephone numbers of clients who were interested in knowing more about the study were given to the researchers by the case manager. Interested clients were then contacted (by telephone or via the case manager) by a member of the research team, who explained the purpose of the study, demands of participation, and ethical guidelines being followed by the researchers (Appendix I). If clients agreed to participate, two 90-minute interviews were scheduled. The first interview was conducted at the client's home in order for the evaluators to assess environmental variables

pertinent to the client's living condition according to the PASSING measure. However, the second interview was conducted at a place which was convenient and comfortable for the client.

During the first 90-minute interview the purpose of the study, demands of participating in the study, and how the study followed ethical standards were explained to the client, and he or she was asked to sign a consent form to participate (see Appendix J). Following this, a semi-structured interview was conducted by a team of two researchers trained to evaluate the characteristics of the participant's living environment using the PASSING tool. The second 90-minute meeting with clients was for the purpose of gaining information about their social networks, social support transactions, and satisfaction with living arrangements, support received and general quality of life. Participants in the study were paid \$10 at the completion of each interview, for a total of \$20.

A sample of 17 case managers was also contacted by the research team and invited to participate in the study (see Appendix K). During the staff interview, the purpose of the study, participation requirements, and how the study met ethical standards were explained to the case manager, and he or she was asked to sign a consent form to participate (see Appendix L). Following this, a 60-minute semi-structured interview was conducted by a researcher using the PASSING tool to obtain additional information relevant to the client. In particular, case managers were questioned about the general nature of the case management services they provided, with particular emphasis on how these services were delivered relative to SRV principles.

The research team for the first set of client and staff interviews comprised eight students enrolled in a doctoral program in clinical psychology in addition to two faculty members in

psychology. Each member of the research team participated in a 5-day applied workshop on SRV principles and the PASSING tool taught by an expert in the field of SRV. A second research team comprised two undergraduate and five graduate students in psychology and one faculty member. This team conducted the second phase of semi-structured interviews regarding clients' social networks, social support, life satisfaction, and quality of life. Notably, two individuals (the author and a faculty member) were members of both the first and second research teams.

Results

In the following section, the findings of the study will be presented. In the first three subsections, descriptive information about the data preparation steps, scale properties, and characteristics of the research participants will be provided. Following this, the results of the primary, exploratory and post-hoc analyses will be presented.

Data Preparation

Prior to all analyses, the distributions of all relevant variables were examined through various SPSS programs for accuracy of data entry and missing values, the presence of outliers and the fit between their distributions and the assumptions of path analysis. Further, a random sample of 20% of the cases in the computerized data file was compared to the corresponding raw questionnaire data. This comparison revealed only one error, suggesting a high level of data entry accuracy.

No missing data were observed for the SRV measure or for the gender variable. However, 6 of the 73 study participants were unavailable for a second interview, resulting in missing data for these individuals on all of the social network, social support and satisfaction

measures. Reasons for incomplete second interviews included refusal to participate any further in the study ($n=4$), inability to participate due to cognitive disability ($n=1$), and death ($n=1$). As such, the sample size for all but the SRV measure and the gender variable was 67. For remaining missing values one of two strategies was employed. If more than 50% of data used to calculate a multi-item scale score was missing, the case was deleted pairwise from the analysis. However, if less than 50% of the data used to calculate a scale score was present the client's mean score on the available items for that scale was substituted for the missing values. As such, sample sizes for the analyses ranged from 64-66.

Examination of standardized scores for all variables using a cutoff point of ± 3.67 ($p < .001$) revealed two univariate outliers on the total network size variable. To preserve data in an already small sample size while respecting the extreme nature of these clients' responses, these two values were recoded to a standard score within ± 3.67 units from the grand mean (Tabachnick & Fidell, 1996). Examination of Mahalanobis distance values for cases on all variables used in the analyses found none to be multivariate outliers. Further, inspection of skewness and kurtosis values, frequency histograms, residual scatterplots and collinearity diagnostic statistics showed that all variables met path analytic assumptions concerning normality, linearity, homogeneity of variance, multicollinearity and singularity.

Scale Properties

Descriptive information on all measurement scales used in the study, including means, standard deviations, item-scale reliability scores, and inter-rater reliability coefficients is shown in Table 1. Cronbach alpha values for all variables in the model range from .79 to .89, demonstrating very good to excellent internal reliability for all measures. The intra-class

Table 1

Descriptive Information on Measurement Scales Used in the Analyses

Scale	N	Number of items	Potential range of scores	Obtained range of scores	M	SD	Cronbach Alpha
Global Assessment of Functioning (GAF)	73	---	0-100	27-80	54	12	^a
Degree of Social Role Valorization (% of Total Maximum Program Score on PASSING)	73	15	0-100	12-87	45	15	.86 ^b
<i>Positive Social Support</i>	66	14	14-70	14-58	34.0	11.2	.89
Problem-Solving Support		7	7-35	7-28	16.0	5.7	.84
Emotional Support		7	7-35	7-35	18.0	6.5	.83
<i>Negative Social Interaction</i>	66	14	14-70	14-55	27.0	10.3	.87
Avoidance		7	7-35	7-28	13.8	5.7	.80
Abuse		7	7-35	7-28	13.2	6.0	.84
Life Satisfaction	65	5	5-35	5-32	19	8	.86
Satisfaction with Support Received from Non-Family ^c	65	6	1-7	1-7	5	1.5	.89
Satisfaction with Support Received from Family ^c	64	4	1-7	1-7	4	1.5	.86
Satisfaction with Living Situation ^c	66	3	1-7	2-7	5	1	.85

^aThe intra-class correlation coefficient between the 1st and 2nd interviewers' GAF ratings was .79, $p < .00$.

^b The intra-class correlation coefficient between the 1st and 2nd interviewer's pre-conciliated % of the Total Maximum Program Score on PASSING was .76, $p < .00$.

^c Where a client's score on the scale is the average of all items for that scale.

correlation coefficients (i.e., inter-rater reliability values) for the GAF and SRV measures were also within the acceptable range ($r = .79$ and $.76$, respectively).

Description of the Sample

The demographic characteristics of sample participants are presented in Table 2. In addition, Table 2 compares the demographic characteristics of individuals in the present sample to available data on all clients participating in MHCSS case management programs (excluding data from participants in the present study). Statistical comparisons between characteristics of the current sample and the MHCSS population showed no differences along the dimensions of gender, age, education level or employment status. This suggests that, in general, the current sample is representative of the larger MHCSS population where these variables are concerned. Notably, however, proportionately more individuals in the present sample vs. the MHCSS population reported earnings from employment (including employment insurance or training income) as their primary source of income (12% vs. 4%, respectively).

The average age of participants in the current sample was 41 years ($SD = 10.11$, Range = 21 - 62 years). The majority (64%) resided in independent living situations (i.e., private market apartments, houses or rooms). Sixty percent of clients in the sample had completed secondary school or had some post-secondary education. The majority of participants (73%) received social assistance as their primary source of income, and the modal income for the sample was \$930.00 per month. All participants, excepting three individuals, reported being hospitalized at least once in their lifetime for treatment of a mental illness, with one-third (35%) of the sample reporting 10 or more hospitalizations. The most commonly reported diagnosis was schizophrenia (37%),

Table 2
Participant Characteristics for Current Sample and Mental Health Community Support Services (MHCSS) Population

Participant Characteristic	Current Sample (n)	MHCSS Population (N)	Test Statistic
Gender			
Female	47% (34)	50% (172)	$\chi^2(1) = 0.28$
Male	53% (39)	50% (169)	
Age in Years			
Mean	41	*	$\chi^2(1) = 2.62$
Range 16-25	7% (5)	12% (33)	
26-35	23% (17)	24% (63)	
36-45	38% (28)	31% (83)	
46-55	25% (18)	24% (65)	
56-65+	7% (5)	9% (24)	
Education Level			
elementary school or less	6%(4)	16%(45)	$\chi^2(4) = 4.64$
some high school	33%(22)	33%(99)	
high school graduate	24%(16)	25%(74)	
some university or college	24%(16)	14%(43)	
university or college graduate	13%(8)	12%(36)	
Employment Status			
Unemployed	92%(61)	92%(307)	$\chi^2(1) = 0.00$
Employed (<i>full-time or part-time</i>)	8% (5)	8% (26)	
Primary Source of Income			
Earned Income (<i>includes training income and employment insurance</i>)	11%(8)	4%(12)	$\chi^2(3) = 8.16^*$
Social Assistance (<i>includes FBA, GWA, or GAINS</i>)	73%(48)	78%(231)	
Government or Private Pension	2%(1)	13%(40)	
Income from Family	14%(9)	5% (15)	
Average Monthly Income			
Mode	\$878.00	*	*
Range	\$930.00		
	\$300.00 - \$1900.00		
Type of Housing			
private market apartment or house	71% (47)	*	*
supportive group home	15% (10)		
board-and-care home	11% (7)		
supervised apartment	3% (2)		

Note. MCHSS data excludes data from clients in the current sample.

* Data currently unavailable for MHCSS population

* $p < 0.05$

Table 2. continued

Participant Characteristic	Current Sample (n)	MHCSS Population (N)	Test Statistic
Average Time Lived in Current Residence (Years)	3.8	a	a
Range (Years)	1 - 48		
Self-Reported Psychiatric Diagnosis			
schizophrenia	37% (23)	a	a
bipolar disorder	14 % (9)		
multiple diagnosis	11% (7)		
affective disorder	10 % (6)		
schizo-affective disorder	10 % (6)		
dissociative identity disorder	5 % (3)		
other	3 % (2)		
don't know	3% (2)		
none	8 % (5)		
Lifetime Number of Hospitalizations for Psychiatric Illness			
Average	16	a	a
Median	7		
Range	0 - 400		
Receiving Pharmacological or Psychological Treatment for a Mental Health Issue?			
Yes	92% (58)	a	a
No	8% (5)		
Service Providers Used			
case manager	28%(19)		
psychiatrist	11% (8)	a	a
community mental health worker	6% (4)		
general practitioner	6% (4)		
nurse	3% (2)		
social worker	3% (2)		
psychologist	2%(1)		
occupational therapist	2% (1)		
spiritual advisor	2% (1)		
not applicable	37% (25)		

Note. MCHSS data excludes data from clients in the current sample.

^a Data currently unavailable for MHCSS population

* $p < 0.05$

followed by bipolar disorder (14%). As shown in Table 2, study participants reported receiving services from a range of hospital and community-based professionals, including case managers, psychiatrists, psychologists, nurses, occupational therapists and spiritual advisors.

Primary Analysis

Test of pathways in the hypothesized model.

To test the hypothesized pathways in the model of environmental, transactional and psychological factors (and therefore the corresponding hypotheses for Research Questions 1 - 5), path analytic procedures were conducted using SPSS. Path analysis is a statistical procedure which provides estimates of the magnitude of direct and indirect relationships between variables in a hypothesized model (Bohrstedt & Knoke, 1994; Klem, 1995; Pedhazur, 1997). For purposes of the present study, a total of six regression analyses were conducted using SPSS (see Tables 3-8) to predict each of the six dependent variables (positive social support, negative social interaction, life satisfaction, satisfaction with support from non-family, satisfaction with support from family and satisfaction with living situation) from the environmental and transactional variables specified by the model.

Inspection of the bivariate correlation matrix for the variables in the model (see Table 9) showed significant and positive relationships between average GAF score and a number of variables in the model, including gender (.29, $p < .05$), per cent of the total maximum program score on PASSING (.58, $p < .001$), and life satisfaction (.32, $p < .05$). Similarly, significant positive relationships were demonstrated between gender and percent of the total maximum program score on PASSING (.38, $p < .01$), positive support (.27, $p < .05$), and satisfaction with support received from non-family (.27, $p < .05$). Therefore, gender and average GAF score were

entered first as covariates into each regression equation, followed by the predictors specified by the model. In contrast, age did not correlate with *any other* variable in the model and was excluded from the regression analyses as a covariate.

Notably, the decision to include gender and average GAF score as covariates in each of the six regression analyses, even when they did not correlate with the dependent variable in question, was taken in order to be consistent across the analyses. Thus, while the power of the individual regression analyses was slightly diminished by the inclusion of covariates which did not demonstrate a significant bivariate relationship with the dependent variable in question, it was deemed more important to include them in the analyses in an effort maintain *consistency* in testing the path model as a whole.

Based on these analyses, Figure 2 diagrams the results for the full model. The *direct path coefficients* (β) shown in Figure 2 are the standardized beta weights for each predictor obtained from the multiple regression analyses. These beta weights allow for an evaluation of the relative importance of each predictor variable. The *residual paths* (e), or error terms, shown for each of the six dependent variables were also calculated from information yielded by the regression analyses. In particular, the path coefficient from a residual to a dependent variable is equal to the square root of $1 - R^2$, where R^2 is equal to the variance attributable to the predictors included in the regression equation for each dependent variable (Pedhazur, 1997). Bivariate correlations (r) between dependent variables and predictor variables are also shown in Figure 2. In the following section, the findings concerning each of the pathways is discussed in relation to the five research questions and corresponding hypotheses posed.

Table 3
Regression of Positive Social Support on Degree of Social Role Valorization and Network Size*

Variable	Standardized Beta Coefficient	t	p
1) Network Size	0	0	1
2) Degree of Social Role Valorization in the Environment	.21	1.26	.21

$F_{(4, 99)} = 1.63, p = .18, R^2 = .04$

* With effects of client functioning and gender entered first into the equation

Table 4

Regression of Negative Social Interaction on Degree of SRV and Network Size.*

Variable	Standardized Beta Coefficient	t	p
1) Network Size	-.14	-1.05	.30
2) Degree of Social Role Valorization in the Environment	.05	0.28	.78

$F_{(4, 59)} = 1.41, p = .24, R^2 = .03$

* With effects of client functioning and gender entered first into the equation

Table 5
Regression of Satisfaction with Living Situation on Degree of Social Role Valorization*

Variable	Standardized Beta Coefficient	t	p
1) Degree of Social Role Valorization in the Environment	.21	1.33	.19

$F_{(3, 62)} = 1.91, p = .14, R^2 = .04$

* With effects of client functioning and gender entered first into the equation

Table 6

Regression of Satisfaction with Life on Positive Social Support and Negative Social Interaction*

Variable	Standardized Beta Coefficient	t	p
1) Positive Social Support	.29	2.31	.02
2) Negative Social Interaction	-.31	-2.45	.02

$F_{(4, 60)} = 4.53, p = .00, R^2 = .18$

* With effects of client functioning and gender entered first into the equation

Table 7

Regression of Satisfaction with Support Received from Non-Family on Positive Social Support and Negative Social Interaction*

Variable	Standardized Beta Coefficient	t	p
1) Positive Social Support	.05	0.35	.73
2) Negative Social Interaction	-.10	-0.73	.47

$F_{(4, 60)} = 1.44, p = .22, R^2 = .03$

* With effects of client functioning and gender entered first into the equation

Table 8

Regression of Satisfaction with Support Received from Family on Positive Social Support and Negative Social Interaction.*

Variable	Standardized Beta Coefficient	t	p
1) Positive Social Support	.18	1.34	.19
2) Negative Social Interaction	-.28	-2.05	.05

$F_{(4, 59)} = 1.50, p = .21, R^2 = .03$

* With effects of client functioning and gender entered first into the equation

Table 9

Intercorrelations Between All Variables in the Model

	1	2	3	4	5	6	7	8	9	10	11
1. Average GAF (73)	---	.12	.29*	.17	.58**	.07	-.12	.12	.15	.32*	.17
2. Age (73)	---	---	.07	.09	-.03	-.03	-.21	.05	.01	.13	.16
3. Gender ^a (73)	---	---	---	.30*	.38**	.27*	.14	.11	.27*	.23	.22
4. Network Size (65)	---	---	---	---	.34**	.12	-.1	.48**	.40**	.34**	.12
5. Degree SRV (73)	---	---	---	---	---	.23	-.05	.20	.39**	.35**	.26*
6. Positive Social Support (66)	---	---	---	---	---	---	.35**	.11	.09	.23	.11
7. Negative Social Interaction (66)	---	---	---	---	---	---	---	-.21	-.05	-.22	-.14
8. Satisfaction Support - Family (64)	---	---	---	---	---	---	---	---	.48**	.47**	.14
9. Satisfaction Support - Non-Family (65)	---	---	---	---	---	---	---	---	---	.47**	.25*
10. Life Satisfaction (65)	---	---	---	---	---	---	---	---	---	---	.31*
11. Satisfaction - Living Situation (66)	---	---	---	---	---	---	---	---	---	---	---

* $p < .05$ (2-tailed); ** $p < .01$ (2-tailed).^a where male = 1, female = 2

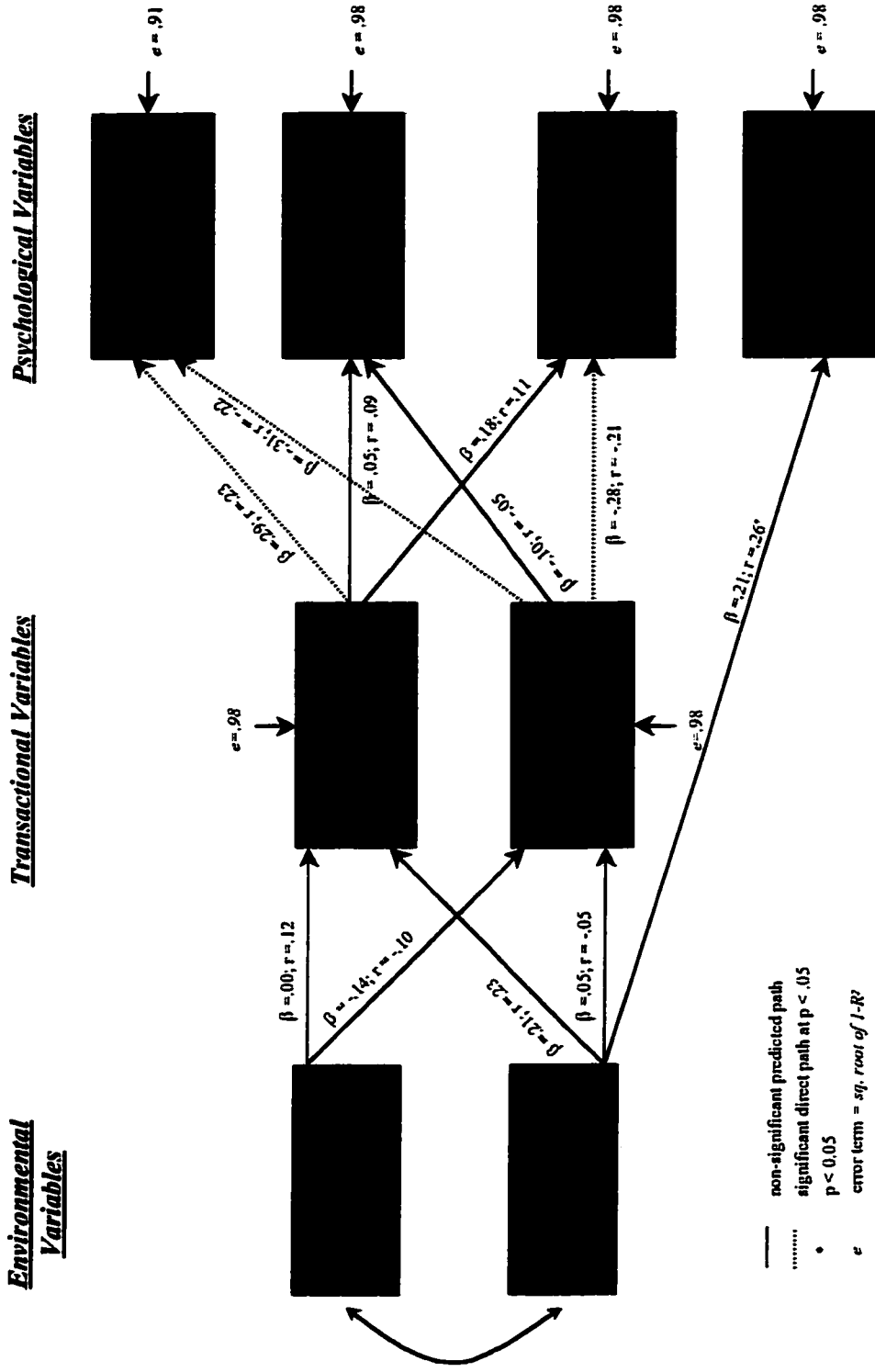


Figure 2. SPSS regression model of direct path coefficients (β) and bivariate correlations (r) between environmental variables, transactional variables and psychological variables.

Research Question 1

After controlling for gender and level of functioning, does degree of SRV in one's living environment contribute to more opportunities for both positive and negative social interaction?

Hypothesis 1a. In line with SRV theory, it was predicted that settings more reflective of culturally valued analogues would afford more opportunities for interaction, and therefore be related to the receipt of more positive social support. As shown in Figure 2 and Table 3, the direct path coefficient between degree of SRV and positive social support was not significant. Hypothesis 1a was not confirmed.

Hypothesis 1b. Also in line with SRV theory, it was proposed that settings more closely reflective of culturally valued analogues would afford more opportunities for negative social interaction. Again, the results presented in Figure 2 and Table 4 demonstrate a non-significant direct path coefficient between degree of SRV and negative social interaction. Hypothesis 1b was not confirmed.

Research Question 2

After controlling for gender and level of functioning, does degree of SRV in the living environment contribute to greater subjective satisfaction with living situation?

Hypothesis 2a. It was anticipated that individuals who experienced a greater degree of SRV in their living environment would also express greater satisfaction with their living situation. The results depicted in Figure 2 and Table 5 demonstrate that despite the significant bivariate correlation between degree of SRV and satisfaction with living situation, the direct path coefficient between the two variables was non-significant. Therefore, Hypothesis 2a was not confirmed.

Research Question 3

After controlling for gender and level of functioning, is network size related to the receipt of positive social support and negative social interaction?

Hypothesis 3a. Hypothesis 3a predicted that individuals with a larger social network would experience more positive social support. As depicted in Figure 2 and Table 3, the direct path coefficient between network size and positive social support was not significant.

Hypothesis 3a was not confirmed.

Hypothesis 3b. Hypothesis 3b posited that individuals with larger social networks would experience more negative social interaction. As in the previous hypothesis, this relationship was not supported. The direct path coefficient between network size and negative social interaction was not significant (see Figure 2 and Table 4). Hypothesis 3b was not confirmed.

Research Question 4

After controlling for gender and level of functioning, do transactional variables mediate the relationship between degree of SRV in the environment and psychological variables? To test the mediating properties of the transactional variables, calculation of indirect and total effects was planned for all statistically significant antecedent factors on life satisfaction, satisfaction with support from non-family members and satisfaction with support from family members.

In accordance with path analytic procedures (Klem, 1995), *indirect path coefficients* between variables are calculated by locating all of the indirect routes by which influence flows from a predictor variable to an outcome variable; for each route, the path coefficients are multiplied to obtain their product. Next, the sum of all products is calculated to estimate the indirect effect of the predictor variable on the outcome variable. The *total effect* of a predictor

variable on an outcome variable is calculated as the sum of all indirect and direct effects along the paths from one variable to the other.

Hypothesis 4a. This hypothesis predicted that positive social support would play a mediating role between degree of SRV in the environment and life satisfaction. Results of the regression of life satisfaction on positive social support (see Table 6, Figure 2) yielded a statistically significant direct pathway between the two variables ($\beta = .29, p < .05$), suggesting that individuals who receive more positive social support are more likely to report greater overall life satisfaction. In contrast, the pathway between degree of SRV and positive social support was not significant (see Figure 2). Thus, Hypothesis 4a was not supported.

Hypothesis 4b. It was also predicted that positive social support would play a mediating role between degree of SRV in the environment and satisfaction with support from non-family members. However, neither the direct pathway between degree of SRV and positive social support (see Figure 2), nor between positive social support and satisfaction with support from non-family (see Figure 2, Table 7) was significant. Therefore, Hypothesis 4b was not confirmed.

Hypothesis 4c. This hypothesis predicted that positive social support would play a mediating role between degree of SRV and satisfaction with support from family. Again, neither the direct pathway between positive social support and satisfaction with support from family (see Figure 2, Table 8), nor the direct pathway between degree of SRV and positive social support was significant (see Figure 2). Hypothesis 4c was not confirmed.

Hypothesis 4d. Parallel to the predictions surrounding positive social support, it was predicted that negative social interaction would act as a mediating variable between degree of SRV in the environment and psychological variables, including life satisfaction. As shown in

Table 6, the direct pathway between negative social interaction and life satisfaction was significant and negative ($\beta = -.31, p < .05$). Thus, those experiencing more negative social interaction reported lower levels of life satisfaction. However, the direct pathway between degree of SRV and negative social interaction was not significant (see Figure 2). Thus, negative social interaction does not act as a mediator between degree of SRV and life satisfaction.

Hypothesis 4d was not confirmed.

Hypothesis 4e. This hypothesis predicted that negative social interaction would mediate the relationship between degree of SRV and satisfaction received from non-family. However, no significant relationship was observed between degree of SRV and negative social interaction (see Figure 2) or between negative social interaction and satisfaction received from non-family (see Figure 2, Table 7). Hypothesis 4e was not confirmed.

Hypothesis 4f. Hypothesis 4f predicted that negative social interaction would act as a mediating variable between degree of SRV and satisfaction with support received from family. The direct effect between negative social interaction and satisfaction with support from family members was significant and negative ($\beta = -.28, p < 0.05$; see Table 8). Thus, those experiencing more negative interaction also reported lower levels of satisfaction with support from family. However, given the non-significant relationship between degree of SRV and negative social interaction (see Figure 2), Hypothesis 4f concerning negative social interaction as a mediator was not confirmed.

Research Question 5

After controlling for gender and level of functioning, do transactional variables mediate the relationship between network size and psychological variables? To test the mediating

effects of the transactional variables between network size and psychological variables, the calculation of total and indirect effects was planned according to the procedure described in Hypothesis 4a.

Hypothesis 5a. It was hypothesized that positive social support would play a mediating role between network size and life satisfaction. Notwithstanding the significant and positive direct path between positive social support and life satisfaction, no relationship was observed between network size and positive social support (see Figure 2). Thus, Hypothesis 5a was not confirmed.

Hypothesis 5b. This hypothesis predicted that positive social support would play a mediating role between network size and satisfaction with support received from non-family members. Neither the direct effect between network size and positive social support nor the direct effect between positive social support and satisfaction with support received from non-family was significant (see Figure 2). Therefore, Hypothesis 5b was not confirmed.

Hypothesis 5c. This hypothesis predicted that positive social support would play a mediating role between network size and satisfaction with support received from family members. Again, neither the relationship between network size and positive social support nor between positive social support and satisfaction with support received from family was significant (see Figure 2). Therefore, Hypothesis 5c was not confirmed.

Hypothesis 5d. It was predicted that negative social interaction would play a mediating role between network size and life satisfaction. As shown in Figure 2, the direct effect between negative social interaction and life satisfaction was significant and negative. However, the direct effect between network size and negative social interaction was not significant. Thus,

Hypothesis 5d was not confirmed.

Hypothesis 5e. This hypothesis predicted that negative social interaction would play a mediating role between network size and satisfaction with support received from non-family. No significant direct effect was observed between network size and negative social interaction or between negative social interaction and satisfaction with support from non-family (Figure 2). Therefore, Hypothesis 5e was not confirmed.

Hypothesis 5f. This hypothesis predicted that negative social interaction would play a mediating role between network size and satisfaction with support received from family. The direct effect between negative social interaction and satisfaction with support from family members was significant and positive (Figure 2). However, the direct effect between network size and negative social interaction was not significant (Figure 2). Therefore, Hypothesis 5f was not confirmed.

Summary of Primary Analyses Results

To summarize, results of the path analysis suggest that the relationship between environmental variables, transactional variables, and psychological variables is not adequately represented by the hypothesized model. With the effects of gender and level of functioning controlled, no relationship was observed between the degree of SRV in one's environment and the amount of positive or negative social interaction received. Similarly, no relationship was found between degree of SRV in the living environment and satisfaction with living arrangements, although a modest bivariate relationship between these two variables was observed. Contrary to prediction, the size of one's social network was also unrelated to the amount of positive or negative social interaction received.

Tests of the mediating properties of the transactional variables between the environmental and psychological variables also yielded non-significant results. Specifically, neither positive social support nor negative social interaction acted as a mediator between degree of SRV in the environment and the psychological variables. In the same way, the transactional variables did not act as mediators between network size and the psychological variables. Notably, however, results of the path analysis did indicate a significant positive relationship between the amount of positive social support received and satisfaction with life scores. The amount of negative social interaction reported was related inversely to both life satisfaction and satisfaction with support received from family members.

In order to explore the decision to include GAF score and gender as covariates in each of the six regression analyses (regardless of each variable's bivariate correlation with the dependent variable in question) the aforementioned results of the path analysis were repeated post-hoc using a second-order correlation matrix. Specifically, GAF score and gender were first partialled out of each of the dependent variables and the same regression equations were recalculated using the second-order (as opposed to zero-order) correlation matrix. The pattern of results yielded by this post-hoc path analysis was identical to that observed in the initial analysis.

Exploratory Research Questions

Stage two of the analysis involved testing the three exploratory research questions concerning gender and social support. For descriptive purposes, the average number of individuals and the average percentage of men and women in each of the network segments (i.e., family, friend, living companion and professional) were also calculated (see Table 10). Also for descriptive purposes, bivariate correlations between each of the network segments and the

satisfaction measures are shown in Table 11. In terms of network transactions, results of a paired samples t-test demonstrated that individuals in the sample reported receiving a greater frequency of different types of positive support vs. different types of negative social interaction (\underline{M} positive = 34, \underline{M} negative = 27; $t(65) = 4.27, p < .00$).

In the following section, results from each of the three exploratory research questions are presented. Four multiple t-tests for independent samples were conducted to explore gender differences along social support dimensions (i.e., Questions 1 and 2). However, since the questions were considered exploratory in nature, no adjustment was made to the significance level to control for inflated Type 1 error. Rather, the alpha level was set at .05 to identify more broadly significant differences. To address the third exploratory question, bivariate correlations were calculated.

Question 1

Does the size of the total network vary with gender? Results of an independent samples t-test demonstrated that women in the sample did have significantly larger social networks than men (\underline{M} women = 13, \underline{M} men = 10; $t(63) = -2.50, p < .05$).

Question 2

Does amount of positive and negative social interaction experienced vary with gender? Results of two independent samples t-tests demonstrated that women did report more positive social support than men (\underline{M} women = 36, \underline{M} men = 30; $t(64) = -2.26, p < .05$). However, the amount of negative social interaction did not vary with gender (\underline{M} women = 25, \underline{M} men = 28; $t(64) = -1.15, p > .05$).

Table 10

Descriptive Information on the Composition of Social Networks

	Network Segment				
	Total (N=65)	Family (N=65)	Friend (N=65)	Living Companion (N=65)	Professional (N=65)
<u>M</u>	13	4	4	2	3
<u>SD</u>	8.3	3.2	4.2	3.3	1.9
Range	1-54 ^a	36756	36766	36757	36745
Average % of women ^b	54	59	52	43	53
Average % of men ^b	46	41	48	57	47

^a The values reported here do not reflect adjustments made to the data to control for outliers. For the calculation of all inferential statistics, two extreme values on total network size were recoded to a standard score within ± 3.67 units from the grand mean (Tabachnick & Fidell, 1996). With adjustments made to the data to control for outliers, total network size ranged from 1-23 (M=11).

^b Calculated only for those who reported having greater than zero individuals in the segments.

Table 11

Correlations Between Network Segments and Satisfaction with Support and Life Measures

Network Segment (n)	Satisfaction Measure		
	Satisfaction with Family	Satisfaction with Non-Family	Satisfaction with Life
1. Family (63)	.40**	.29*	.34**
2. Friend (63)	.15	.33*	.14
3. Living Companion (63)	.24	.04	.22
4. Professional (63)	.25*	.18	.16
5. Total Network (63)	.48**	.40**	.34**

* $p < .05$ (2-tailed).** $p < .01$ (2-tailed).

Question 3

How is the proportion of women in an individual's social network related to the receipt of positive support and negative social interaction? To explore this relationship, the proportion of women in the total network was correlated with positive support and negative social interaction, respectively. The bivariate correlations between the proportion of women in a client's network and receipt of positive social support ($r = .10, p > .05$), and between proportion of women and receipt of negative social interaction ($r = -.03, p > .05$) were not significant.

Post-Hoc Analyses

Given the non-significance of the paths tested in the hypothesized model, several post-hoc analyses were conducted to explore the relationships between all of the predictors and the satisfaction variables specified in Figure 1. In particular, three hierarchical multiple regression analyses were calculated to describe the effect of all antecedent variables on each of satisfaction with life, satisfaction with support received from non-family members, and satisfaction with support received from family members after controlling for the effects of client functioning and gender (see Tables 12-14).

The overall level of explanation for each of the satisfaction measures was significant, albeit modest (satisfaction with life $R^2 = .20$; satisfaction with support from non-family $R^2 = .18$; satisfaction with support received from family members $R^2 = .20$). Beginning with satisfaction with life, only negative social interaction was a significant predictor when all variables in the original model were considered. Thus, as demonstrated in the path analysis results, those experiencing more negative social interaction reported less life satisfaction, regardless of gender and level of functioning ($\beta = -.27, p < .05$).

Table 12

Hierarchical Multiple Regression of Satisfaction with Life on Environmental and Transactional Variables

Entered on Step #	Variable	Standardized Beta Coefficient	t	p
1	Gender	.07	0.57	.57
	Client Functioning	.12	0.82	.41
2	Network Size	.21	1.66	.08
	Degree of Social Role Valorization in the Environment	.11	0.7	.49
3	Positive Social Interaction	.23	1.81	.08
	Negative Social Interaction	-.27	-2.16	.04

$F_{(6, 56)} = 3.51, p = .01, R^2 = .20$

Table 13

Hierarchical Multiple Regression of Satisfaction with Support Received From Non-Family on Environmental and Transactional Variables

Entered on Step #	Variable	Standardized Beta Coefficient	t	p
1	Gender	.13	1.04	.30
	Client Functioning	-.08	-0.56	.58
2	Network Size	.27	2.19	.03
	Degree of Social Role Valorization in the Environment	.31	2.03	.05
3	Positive Social Interaction	.01	0.05	.96
	Negative Social Interaction	-.02	-0.13	.90

$F_{(6, 36)} = 3.27, p = .01, R^2 = .18$

Table 14

Hierarchical Multiple Regression of Satisfaction with Support Received from Family on Environmental and Transactional Variables

Entered on Step #	Variable	Standardized Beta Coefficient	t	p
1	Gender	-.01	-0.07	.95
	Client	.00	0.00	.99
2	Network Size	.43	3.52	.00
	Degree of Social Role Valorization in the Environment	.04	0.27	.79
3	Positive Social Interaction	.16	1.28	.21
	Negative Social Interaction	-.22	-1.78	.08

$F_{(6, 56)} = 3.60, p = .00, R^2 = .20$

Two variables significantly predicted support received from non-family: degree of SRV in the environment and network size. Thus, with the effect of client functioning and gender excluded, those with a higher degree of SRV in their environment also reported greater satisfaction with support received from non-family members ($\beta = .31, p < .05$). Similarly, individuals who reported a larger social network also reported greater satisfaction with support received from non-family members ($\beta = .27, p < .05$).

Finally, when all predictors were considered in the regression equation for satisfaction with support received from family members, only network size was significant. Thus, individuals with larger networks reported more satisfaction with support received from family members, even after the effects of gender and level of functioning were considered ($\beta = .43, p < .01$).

Given the significant post-hoc findings regarding network size and satisfaction with support received from non-family and family, the effect of size of network segments (i.e., family, friend, living companion and professional) on these satisfaction variables was explored. Results of a hierarchical regression (see Table 15) demonstrated that after controlling for gender and client level of functioning, size of the network segments did not significantly predict satisfaction with support from non-family. However, results of a second hierarchical regression (see Table 16) demonstrated that size of family network significantly predicted satisfaction with support received from family, with the effects of gender and client functioning controlled. Thus, whereas the size of specific network segments did not predict satisfaction with support received from non-family, those with larger family networks also reported being more satisfied with the support they received from their families ($\beta = .35, p < .05$).

Table 15

Hierarchical Regression of Satisfaction with Support From Non-Family on Network Segments

Entered on Step #	Variable	Standardized Beta Coefficient	t	p
1	Gender	.21	1.5	.14
	Client	.07	0.57	.57
2	Size of Living Companion Network	.10	0.71	.48
	Size of Friend Network	.23	1.52	.14
	Size of Family Network	.07	0.45	.65
	Size of Professional Network	.01	0.1	.92

$F_{(6, 56)} = 2.02, p = .08, R^2 = .09$

Table 16
Hierarchical Multiple Regression of Satisfaction with Support from Family on Network Segments

Entered on Step #	Variable	Standardized Beta Coefficient	t	p
1	Gender	.05	0.33	.74
	Client	.05	0.38	.71
2	Size of Living Companion Network	.14	0.97	.34
	Size of Friend Network	-.05	-0.34	.73
	Size of Family Network	.35	2.28	.03
	Size of Professional Network	.09	0.65	.52

$F_{(6, 56)} = 2.32, p = .05, R^2 = .11$

Discussion

The purpose of the present study was to test a model of the relationships between SRV theory, social network characteristics and transactions, and subjective ratings of satisfaction with living situation, life and support received for adults with psychiatric disabilities. In particular, the objectives were threefold: (a) to further empirical testing of SRV theory within the domain of mental health; (b) to further research on the social networks and transactions of individuals with psychiatric disabilities; and (c) to further research on the contribution of environmental and transactional characteristics to the life satisfaction of individuals with psychiatric disabilities. The following three sections address the findings of the study as they relate to each of these objectives. In the first two sections information on the SRV/PASSING findings and the social network and transaction findings are discussed within the context of their respective literatures. In the third section, the findings concerning the relationships between the environmental variables, transactional variables and psychological variables are considered within the context of the hypothesized path analytic model developed for the study. In the next section, results of the post-hoc analyses are discussed. In the final section of the discussion, the limitations of the present study and directions for future research are reviewed.

SRV and PASSING Findings

In general, the present findings parallel the larger body of research concerning SRV research, particularly in the field of developmental disabilities. In line with previous observations on the psychometric properties of the full PASSING measure, the present results demonstrate relatively high levels of interrater reliability and internal consistency for Flynn and colleagues' (1999) factor-based PASSING Program subscale. Although the factor-based

Program subscale was used for research purposes in the present analysis, its sound psychometric properties suggest that it may provide PASSING users, including program administrators, with a practical and efficient tool for evaluating programs and conveying recommendations.

In line with past research on human service programs in a variety of areas, the present findings suggest that overall service quality for the mental health program in our study (as measured by the total PASSING score) is modest at only 45% - in SRV terms, a “minimally acceptable” level (Wolfensberger & Thomas, 1983). This finding suggests that more work should be directed at identifying what factors may help community service agencies to address their clients’ needs more fully, particularly where social integration is concerned. As Felce and Perry (1997) noted, true social integration of disadvantaged clients remains elusive, and services are often characterized by an inadequate range and technical sophistication in their approaches to supporting integration, meaningful activity, choice and development. Currently, research is ongoing at the MHCSS (Aubry, 1997) to identify core competencies required by service personnel to assist clients’ development and integration. This research is certainly a preliminary step in improving overall service and client outcomes. Nevertheless, qualitative information gathered in the present study through interviews with case managers also suggests funding shortages and a subsequent lack of staff and resources in the community mental health sectors may be significant barriers to providing effective services for clients that will facilitate the development of socially valued roles in the community.

The present findings concerning the predictive validity of the PASSING measure also coincide with past research. In particular, the present study found that percentage of the total maximum Program score was significantly correlated with overall life satisfaction ($r = .35$),

satisfaction with living situation ($r = .30$), and satisfaction with support from non-family members ($r = .40$). These findings lend support to the most fundamental SRV tenet that those living in more normalized settings enjoy an enhanced quality of life, at least where satisfaction with support from friends and overall life satisfaction is concerned. Nevertheless, the correlational nature of these findings makes ascertaining the directionality of this relationship impossible. It is likely that living within a more socially valued environment may lead to more positive client outcomes. Nevertheless, it is equally plausible that those who are generally more satisfied with their quality of life, supports and living situation are also more likely to seek out more normalized environments. Future research using longitudinal designs and more sophisticated analyses is necessary to refine the processes through which a more socially valued setting may enhance quality of life.

Client characteristics in the present study also appear to relate to degree of SRV in the environment. In particular, a substantial positive correlation ($r = .58$) was observed between degree of SRV in the environment and level of client functioning as measured on the GAF. Thus, those who were functioning at a higher level also tended to experience a greater degree of SRV in their environment. This finding coincides with those of previous researchers (e.g., Borthwick-Duffy et al., 1992; Hull & Thompson, 1981a; Hull et al., 1984) who have linked degree of SRV in the setting to various indices of client adaptation. However, in contrast to past research which has found a relationship between age and degree of SRV (e.g., Borthwick-Duffy et al., 1992), no relationship between these variables was found in the present study.

In fact, the present results suggest a link with gender, with women in the present analysis enjoying a higher degree of SRV in their environments. This finding was somewhat unexpected,

and may be related to the observations that women in the study reported having significantly larger social networks and receiving more positive social support. Indeed, women with psychiatric disabilities have been observed to have better social functioning and more supports in several studies (e.g., Baker et al., 1992; Goering, Wasylenki et al., 1992; Hall and Nelson, 1996). If the development of a more normalized environment is in fact contingent on the development or enhancement of more socially valued roles (Wolfensberger, 2000), then it is logical that having a larger network could potentially provide more opportunities to enhance these roles. Likewise, receiving more positive social support may be an important factor in developing and enhancing one's interpersonal competency and breadth of social roles - both pivotal aspects of developing a more socially valued environment (Wolfensberger, 2000).

Nevertheless, given the absence of a significant path model, the directionality of the relationships between gender, level of functioning, social support and degree of SRV is speculative at best. In all likelihood, these factors are reciprocal (Hull & Thompson, 1984; Nelson & Smith Fowler, 1987) in that clients who are functioning at a higher level (including interpersonally) may be more capable of acquiring and maintaining more socially valued environments. In turn, experiencing a more socially valued environment may (as SRV theory suggests) enhance client functioning, in many areas including social skill. From a service delivery standpoint, these correlations do suggest that gender is an important consideration in addressing client needs. In particular, men in the MHCSS program may require different interventions, given their fewer supports and lower levels of functioning. However, further research is necessary to tease apart the effects of each of these variables to identify the personal and social characteristics which may relate specifically to client outcomes.

In summary, the present results extend research with PASSING and SRV theory into the domain of mental health. In particular, results suggest good psychometric properties for the shortened PASSING measure, as developed by Flynn et al. (1999). Analogous to previous findings concerning community programs, the present findings also suggest that overall service quality for the MHCSS as measured on PASSING is modest, at best. The observed correlations between the Program subscale, client functioning, and the satisfaction measures also suggest some concurrent validity for the shortened PASSING measure. Finally, the significant correlations between the Program subscale and level of functioning and gender suggest that individual characteristics may play a role in developing and/or maintaining socially valued environments.

Social Network and Transactions Findings

Similar to past research surveying individuals with psychiatric disabilities (e.g., Cohen & Sokolovsky, 1978; Goering, Durbin et al., 1992; Lipton et al. 1981), results of the present study demonstrate a total network size of between 1 and 23 individuals (excluding two extreme scores), with an average of 13 individuals. Compared to estimates of the network size of individuals without a psychiatric disability, which typically range from 20-30 people (McFarlane et al., 1981; Pattison et al., 1975), this finding suggests that individuals in the present sample typically have smaller networks than their non-disabled counterparts. Also in line with past findings, individuals in the current survey reported networks comprised of various segments, including family, friends, living companions and professionals.

Results also demonstrated a link between size of an individual's network and support received from family, friends and professionals. In particular, a significant correlation was

observed between overall network size and support received from family and support received from friends. As might be expected, a positive relationship was also observed between size of the family network and satisfaction with support received from family, and between size of the friend network and satisfaction with support received from friends.

As a whole, these findings underscore the importance of having different individuals in one's social network and suggest that having a wider range of individuals in one's life is in fact related to greater subjective satisfaction with support received. Further, these results are in keeping with previous findings of a link between size of one's social network and satisfaction with support received among individuals with psychiatric disabilities (e.g., Goering, Durbin et al., 1992; Meeks & Murrell, 1997). Nonetheless, in the absence of longitudinal data it is impossible to specify the directionality of these relationships. Although it is plausible that having more supports leads to greater satisfaction with support, it may also be true that individuals who are more satisfied with their supports are happier and therefore more sociable (Diener, 1984).

Surprisingly, the number of individuals in the professional network was also related to satisfaction with support received from family. Although the correlational nature of this finding is subject to alternative interpretations, it may reflect the growing emphasis on involving families in formal treatment efforts for individuals with severe mental illness. In fact, family members have long served as the primary caregivers for individuals with severe and chronic mental illness who live in the community, but only recently have professionals actively sought family members' assistance in formal rehabilitation efforts (Aubry, Farrell, Virley O'Connor, Kerr, Weston, & Elliott, 2000; Intagliata, Willer, & Egri, 1986; McFarlane, Stastny, & Deakins, 1992; Whelton,

Pawlick, & Cardamone, 1997). The present findings may in fact reflect MHCSS professionals' recognition of the importance of family relationships in developing rehabilitation efforts, and their active attempts to help clients to reconcile, enhance and/or maintain these relationships. Indeed, a "family focus" characterized at least two of the case management programs included in the present sample of MHCSS services, as indicated via the case manager interviews. The important role that family members may play in supporting individuals with psychiatric disabilities is also highlighted by the finding that size of family network was significantly and positively related to overall satisfaction with life.

Turning to the nature of support transactions received, clients in the present study received both positive social support and negative social interaction from their network members, with individuals receiving more positive types of support than negative types of interaction. In addition, the results of the exploratory analyses yielded several interesting findings about the nature of support processes as they relate to gender. In particular, women in the sample reported having larger networks and experiencing more positive support, but not more negative social interaction. These results are similar to the findings of previous researchers who have also observed gender differences in social network and social transaction variables among individuals with psychiatric disabilities (Baker et al., 1992; Goering, Wasylenki et al., 1992; Grusky et al., 1985; Hall & Nelson, 1996). Notably, however, the results of the present study do not support Hall and Nelson's (1996) previous observation that women received more negative social interaction than men. Further, unlike Hall and Nelson's results, no support was found in the present study for the idea that the proportion of women in an individual's network is related to the amount of positive social support received.

Nevertheless, in the context of past results, the gender differences observed in the present study stress the importance of this variable in social support processes. The idea that gender can play a role in support processes is a modern realization in the field of psychiatric disabilities (Goering, Wasylenki, et al., 1992), one which has mirrored the more general literature on social support processes (Barbee et al., 1993). In fact, the present findings may add support to the idea that the propensity in general for women to have more intense and supportive social relationships is a gender-related characteristic resistant to the effects of severe mental illness (Goering, Wasylenki et al., 1992).

From a clinical perspective, these findings support the growing argument that it is crucial to examine the unique experiences and needs of women with psychiatric disabilities because they have been largely ignored both in theory and practice (Mowbray, Herman & Hazel, 1992; Cogan, 1998). Further, the present findings lend support to the assertion that generic interventions may be more appropriate for men than women (Hall & Nelson, 1996). Indeed, the primary focus of many contemporary community mental health programs is building and/or maintaining clients' social networks (Becker et al., 1998; Davidson et al., 1999; Thornicroft & Breakey, 1991). Yet, the present findings in concert with past research suggest that such programs may be more relevant from a male perspective (Hall & Nelson, 1996). As Cogan (1998) suggests, a "gender-blind" paradigm overlooks important experiences which are central to women's lives and psychological well-being, including abuse issues, parenting and child-custody issues and sexuality issues. Unfortunately, the present study provides limited insight into the true gender-based needs of individuals with psychiatric disabilities, and more research on the role of gender processes in social support is clearly needed to provide optimal community services to both

women and men.

In summary, the present findings extend research on the social support networks and processes of individuals with severe and chronic mental illness who live in the community. In particular, estimates of the size of social networks are in keeping with past observations, and demonstrate that networks comprise various segments, including family, friends and professionals. The observed correlations between overall network size and the measures of satisfaction, and between the size of various network segments and measures of satisfaction underscore the importance that different individuals may have in providing support. Further, the influence of family supports is highlighted in the finding that size of family network was related to both satisfaction with support received from family members and overall life satisfaction. Finally, in line with previous findings highlighting the importance of gender in social support processes, the current results showed that women in the sample had larger networks and reported receiving more positive social support.

Discussion of Findings Concerning The Hypothesized Model of Environmental, Transactional and Psychological Variables

SRV and social support transactions. The first research question addressed the relationship between degree of SRV in the environment and opportunities for positive and negative social interaction. In line with SRV theory, it was posited that individuals who enjoyed a higher degree of SRV in their environments would also receive more positive and negative support from their networks. However, results of the path analysis suggested no evidence for a relationship between either of the transactional variables and degree of SRV in the environment. Moreover, no bivariate relationship was observed between SRV and either of these two variables.

Although no previous research has considered the relationship between degree of SRV in the environment and social support transactions specifically, several studies have examined degree of N/SRV as it relates to the more general concept of social integration. Within the field of developmental disabilities, for example, Perry and Felce (1995) found a significant and positive relationship between degree of normalization in the environment and frequency of social contacts. Likewise, Pilon et al. (1993; cited in Flynn, 1999) observed that those who had more normalized environments also had higher scores on an unspecified measure of social integration. Within the field of mental health, Golden's (1982) results showed that the quality of the interpersonal interactions within community residences for people with psychiatric disabilities was important in fostering normalization. On the other hand, Ely (1991) found that degree of SRV in the environment was not related to social integration as measured by the frequency of social activities inside and outside the residence.

Taken together with previous findings, the results of the present study suggest that degree of SRV may be related to the more global construct of social integration as conceptualized in a variety of ways (e.g., frequency of social contacts, quality of interpersonal interactions), but not specifically to the nature or frequency of social support transactions received. Although support transactions are probably one component of social integration, a host of other factors may be equally important and perhaps more relevant to subjective satisfaction from an SRV perspective, including composition of network, relationship stability, and reciprocity of relationships. Indeed, the results of the current analysis suggest that network size may be an important factor in degree of SRV, in that these two variables were significantly, albeit modestly, related ($r = .34$). Nevertheless, whether having a greater degree of SRV in one's environment leads to a larger

network or whether a larger network leads to a more normalized environment remains unclear without further research.

Another aspect of social integration that may be important from an SRV perspective is the source and context of social contacts - that is, with whom and where the individual is spending time. In his recent summary of SRV, Wolfensberger (1998) points out that from an SRV perspective, integration means "personal social integration and valued social participation," which in turn requires *valued* participation with *valued* people in valued activities that take place in *valued* settings. From this perspective, and in light of the present findings, perhaps the simple construct of the frequency of social transactions is too narrow to capture the true essence of SRV.

In line with this assertion, preliminary research which draws on SRV tenets has highlighted the importance of the source and context of relationships for those who are developmentally disabled. In their examination of the influence of stress and social support on adjustment to community life of 133 mentally retarded individuals, Hasazi, Burchard, Gordon, Vecchione, and Rosen (1992) found that individuals whose social network included a greater number of nondisabled persons experienced significantly less stress than their peers with smaller networks. Thus, future work examining the relationships between SRV theory and social networks transactions for individuals who suffer from a psychiatric disability should include a broad perspective and provide a range of measures concerned with assessing the quantity and "quality" of these relationships as defined by SRV.

SRV and satisfaction with living situation. The second research question asked whether degree of SRV contributed to satisfaction with living situation. Given the emphasis of SRV theory on environmental context, and in line with past findings which have suggested a link

between degree of SRV and satisfaction with living situation (e.g., Ely, 1991), it was predicted that a more socially valued environment would be related to greater satisfaction with living situation. Nevertheless, the observed results did not support this relationship. Despite the modest positive correlation between the two variables ($r = .26$, $p < .05$), the path relationship between degree of SRV and satisfaction with living situation was not significant once the effects of gender and level of functioning were removed.

Although Ely (1991) did note a positive relationship between degree of SRV and satisfaction with living situation, his observed correlations were between the Setting subscale and Total scale of the PASSING measure, and not the Program subscale (i.e., a similar version of the subscale used in the present study). As described previously, the Setting subscale of the PASSING measure is an index of the physical characteristics of a service setting (e.g, the physical location, size, setting-neighbourhood harmony and availability of community resources) rather than its functional aspects. Underscoring the importance of structural environmental characteristics, Ely also observed that 67% of the total variance in the Total PASSING score was accounted for by two aspects of the service setting: rural vs. urban location and size. In a similar vein, Hull and Thompson (1981b) found that environmental characteristics such as size of residence, location of residence in a middle or upper- income communities with higher quality homes, and more community resources and potentially integrating activities were important predictors of normalization.

In tandem with these previous findings, the present results suggest that perhaps the structural environmental considerations rather than the functional characteristics of a program are more salient to an individual's satisfaction with his or her living situation from an SRV

perspective. As Flynn and Aubry (1999) suggest, the importance of where persons with psychiatric disabilities live has probably been underestimated, with housing locations often based on finding neighbourhoods where other community members will not oppose having them in close proximity. Moreover, given the abject poverty that often characterizes the lives of individuals with psychiatric disabilities, housing considerations may also be based on what is affordable and available (Mallik, Reeves, & Dellario, 1998). Nevertheless, research concerning the environmental contexts that contribute to consumer satisfaction is imperative in working toward effective policy and programming designed to best address the housing needs of consumers with psychiatric disabilities.

Network size and social support transactions. The third research question addressed the relationship between network size and social interactions. Contrary to expectations, results of the path analysis demonstrated no relationship between the size of one's network and the frequency of either positive social support or negative social interaction received. These findings parallel those of Segal and Holschuh (1991) who also found no relationship between size of network and frequency of transactions among individuals with psychiatric disabilities.

On the other hand, the present results do not support those of previous researchers who have observed a significant relationship between size of network and frequency of transactions received by individuals with psychiatric disabilities (e.g., Earls & Nelson, 1988; Goering, Durbin et al., 1992; Meeks & Murrell, 1997; Nelson et al., 1992). The present findings are particularly puzzling in light of the fact that the network and transactions measures used in the present study were identical to those employed by Nelson et al. (1992). Nevertheless, where previous studies (including Nelson et al., 1992) have considered size of network segments (i.e., friend, family,

professional) as they relate to frequency of transactions received, only total network size (i.e., sum of all friend, family member and professional segments) was considered in the present analysis because of a limited sample size and concerns over limiting the number of predictors in the path model. Moreover, although Earls and Nelson (1988) and Meeks and Murrell (1997) did observe correlations between size of network and frequency of transactions received, these correlations were minimal (.22 and .11, respectively) despite relatively large sample sizes ($N= 89$ and 357, respectively). Thus, the magnitude of the relationships suggests that the actual amount of variance explained by these variables is minimal.

A second explanation for the differential findings may relate to living situation. Whereas clients in the vast majority of previous studies concerning social support lived in specialized congregate-housing programs (e.g., supportive apartments, group homes, board and care homes, community residences), the majority of participants in the present study lived independently. The focus of previous research on congregate-housing programs is likely a function of the fact that such programs have served as the main mechanism for facilitating the community integration of individuals with psychiatric disabilities since the onset of deinstitutionalization (Trainor et al., 1993). Yet, opportunities for living in such programs are limited to a small number of individuals (Trainor et al., 1993). Although more research is necessary to fully understand the relationship between living situation and the development of social networks and transactions, it is likely that the experience of residents of independent settings differs from that of individuals living in congregate settings. Given the growing emphasis on developing approaches to housing for individuals with psychiatric disabilities in independent settings with necessary supports (Carling, 1995), future researchers should extend their scope to those living independently in the

community to gain a wider perspective on the correlates of social support characteristics and processes.

Social support transactions as mediating variables. The fourth research question addressed the mediational properties of the transactional variables between SRV and psychological variables. In particular, it was posited that positive social support and negative social interaction were the mechanisms by which degree of SRV relates to life satisfaction outcomes. As discussed previously, results did not confirm a link between degree of SRV and the transactional variables. Therefore, no significant indirect path from degree of SRV to the satisfaction measures (via the transactional variables) was observed. Thus, although degree of SRV was significantly correlated to several of the satisfaction measures, the specific mechanisms by which this process occurs do not appear to be related to the frequency of different types of support received.

Although the transactional variables did not act as mediators between degree of SRV and the outcome measures, a significant relationship was observed between positive social support and life satisfaction. These findings suggest that individuals who received more positive social support were happier overall with their life situation. Thus, the receipt of more emotional support and practical advice on how to cope with problems in living were related to higher levels of satisfaction. These findings lend support to those of previous researchers' who have also demonstrated a link between the perceived amount of positive social support received and well-being, life satisfaction and positive affect (eg., Kennedy, 1989; Baker et al., 1992; Aubry & Myner, 1996; Caron et al., 1998; Earls & Nelson, 1988; Hall & Nelson, 1996).

Also in line with past findings (i.e., Earls & Nelson, 1988; Hall & Nelson, 1996), the results of the current study demonstrate a link between negative social interaction and satisfaction with life and satisfaction with support received from family members. In contrast to the positive support findings, those clients who received more negative interaction reported lower levels of life satisfaction. Thus, being subject to emotional abuse and to advice to avoid problems is related to lower levels of satisfaction with life. Aside from making intuitive sense, these findings are important in that they underscore the need to consider not only the impact of positive social support, but that of negative interactions as well - a fact which has often been overlooked by researchers and theorists alike (Coyne & De Longis, 1986; Coyne & Downey, 1991; Rook, 1984).

The present findings also showed a significant, inverse relationship between negative social interaction and satisfaction with support from family members. Those who received more types of negative interaction from their family members were more unhappy with their family relationships. As discussed previously, family members often assume the primary support role for their member with severe mental illness. However, these results suggest that while families can be an important source of positive support for individuals with psychiatric disabilities, family interactions may also be negative. In turn, more negative interactions may have an impact on the disabled individual's subjective satisfaction with support received.

From a service delivery perspective, it is important to note the differences between these two types of social interaction. Building and enhancing social networks are often fundamental goals of community mental health services (Becker et al., 1998). However, the present results combined with previous findings suggest that the *type* of transactions within the social network

are also be important to consider, particularly where family relationships are concerned. For example, clients may benefit from assistance with improving family relationships, given the link between positive social support and positive client outcomes. Nevertheless, the observed relationship between the frequency of negative social interaction received and perceptions of family support suggests that offering clients practical assistance with developing coping skills and conflict resolution techniques for buffering the impact of negative exchanges may also be an important aspect of service delivery.

The fifth research question addressed the relationship between network size and psychological variables as mediated by the transactional variables. In particular, it was posited that individuals with larger social networks would experience more positive social support, which would lead to greater satisfaction with support from family and friends, and greater life satisfaction. Similarly, it was anticipated that having a larger network would be related to receiving more negative social interaction. In turn, it was anticipated that this would lead to lower life satisfaction and lower satisfaction with support received.

As discussed previously, no significant relationship was observed between network size and the transactional variables. As such, the indirect paths between network size and the satisfaction variables (as mediated by positive social support and negative social interaction) were not significant. Thus, although having a larger social network was positively correlated with life satisfaction and with satisfaction with support received from family and friends, these relationships do not appear to be mediated by the frequency of support transactions received. These findings are most similar to Hall and Nelson's (1996), who also found no evidence of mediating properties for positive and negative support transactions as related to size of an

individual's network.

The most obvious reason for the non-significant findings concerning network transactions is that network size is related to the measures of satisfaction with support via some other facet of social support. In fact, the broad term "social support" may encompass a number of complex processes (Rhodes & Lakey, 1999), including perceived support (i.e., subjective appraisals of the availability or quality of support), enacted support (i.e., the receipt of specific social behaviours), and support-seeking (i.e., individual differences in the tendency to seek out support for a range of problems). Likewise, the degree of reciprocity present in one's social transactions may be an important mediator between network size and satisfaction with support. In support of this assertion, the importance of reciprocity in the support transactions of individuals with psychiatric disabilities has been demonstrated in at least one study (Nelson et al., 1992). Similarly, Hall and Nelson (1996) found that positive social support and negative social interaction did mediate the relationship between individual characteristics (i.e., gender) and positive affect, and between proportion of women in the network and positive affect. Thus, the diversity and complexity of social support phenomena suggest that future research must consider a wide range of potential mechanisms in explaining how different processes relate to different outcomes (Rhodes & Lakey, 1999).

The lack of evidence for the importance of social network transactions in the present analysis may also be related to the nature of serious mental illness, of which marked impairment in social functioning is typically symptomatic (Rhodes & Lakey, 1999). Yet, what may be considered "impairment" by mental health professionals and service providers may actually reflect a true preference for less intense social relationships, at least for some individuals.

Indeed, some argue that persons with schizophrenia benefit from structure and predictability as a means to organize their mental processes and maintain moderate levels of stimulation (e.g., Beels, Gutwirth, Berkeley, & Strenning, 1984). However, research with general populations has demonstrated that one's perception of support is perhaps the best indicator of actual support (Sarason, Sarason, & Pierce, 1990). From this viewpoint, support acquisition is best understood as a transactional process involving the personal characteristics of senders and receivers, rather than a set of observable relationships (Walsh, 1996). If this is true, then the generic goal of many community mental health programs of enhancing individuals' social networks may actually overvalue the role of social transactions for certain individuals.

Although the current results do suggest a direct link between satisfaction measures and network size, the non-significant results found here concerning network transactions may indicate that individuals with certain illnesses (e.g., schizophrenia) require qualitatively or quantitatively different types of transactions than were measured here. Having others to turn to for help or to disclose personal problems to is undoubtedly important for individuals who suffer from mental illness - just as it is for non-disabled individuals. However, the exact processes by which it is linked to satisfaction measures remain unclear and may differ as a function of psychiatric symptomatology and individual differences. An invaluable addition to this literature would be research considering the "fit" between the reported need for support and the actual amount of support received by individuals' with different kinds of psychiatric disabilities.

Predictors of Life Satisfaction and Satisfaction with Support Received - Post Hoc Analyses

Given the non-significant findings in the research model, the purpose of the post-hoc analyses was to consider the impact of environmental characteristics (i.e., degree of SRV and

network size) and transactional characteristics (i.e., positive social support and negative social interaction) on the measures of satisfaction (i.e., satisfaction with life and with support received from family and friends), after controlling for the effects of client functioning and gender.

Although no additional information about the relationship of the transactional variables to the measures of satisfaction with life and support received was found, an important finding was gleaned concerning the unique contribution of degree of SRV to these variables. In support of SRV theory, results demonstrated that degree of SRV in one's environment did have a positive impact on satisfaction with support received from friends, regardless of client functioning or gender. This finding is particularly noteworthy in light of the large correlation between degree of SRV and level of functioning ($r = .58$). Although the magnitude of this correlation suggests some conceptual overlap in these two constructs, the significant contribution of the SRV variable to ratings of satisfaction with support from friends suggests that the theory does indeed capture more than social, occupational and symptomatic functioning as embodied by the GAF.

Nevertheless, these findings yield little evidence concerning the *specific* aspects of SRV which may contribute to client satisfaction beyond those measured by level of functioning. Degree of SRV, as measured by the Program subscale of PASSING, comprises several distinct aspects aimed at assessing the ability of service providers of the program to enhance clients' images and competencies. As such, the measure comprises a broad index of how factors such as client grouping, integrative contacts, personal relationships, and activities and timing may enhance or detract from clients' images. Similarly, the ability of service personnel to enhance clients' competencies via client groupings, integrative contacts and personal relationships, support for client individualization and promotion of socio-sexual identity are all factors

measured by the Program subscale of PASSING.

Given the broad array of constructs measured by PASSING, it is difficult to know which particular construct (or interaction between constructs) may be related to client satisfaction. Hence, although the present results do provide preliminary evidence for the SRV assertion that enhancing an individual's environment will potentially produce better outcomes for that individual, further research is necessary to tease apart the specific factors embodied by SRV so that practical approaches to improving the quality of life for individuals with psychiatric disabilities may be developed. In the present study, a choice was made to consider subjective quality of life as embodied by subjective satisfaction with life and satisfaction with support received. However, while these variables are likely important variables to consider in assessing an individual's well-being, there are a multitude of other factors that may also be enhanced by the implementation of SRV. As such, it will be important for future researchers to examine the link between SRV and other facets of well-being, including empowerment, mastery, positive affect and sense of community.

Network size also demonstrated a significant relationship to satisfaction with support received from friends, and to support received from family members. Thus, regardless of level of functioning or gender differences, having a larger social network does appear to lead to increased satisfaction with support received from friends and family members. However, when this relationship was explored further, it was found that only size of family network was a significant predictor of satisfaction with support received from family members. In contrast, size of the friend, living companion or professional network segments was not related to the satisfaction with support measures. Thus, the importance of network size to satisfaction measures appears

important only where overall network and family network are concerned.

Similar to degree of SRV, however, the manner in which overall network size and family network size impact on these satisfaction variables is not clear. As discussed previously in relation to the path analytic findings, network size does not appear to relate to satisfaction with support via the frequency of transaction variables, but may be related via a number of other complex support processes, such as reciprocity and adequacy. Nevertheless, the present findings do lend support to the idea that increasing the size of an individual's social network - and particularly the family network - may lead to positive outcomes.

As such, and in conjunction with past findings which have demonstrated a relationship between a larger networks and greater subjective satisfaction (e.g., Goering, Durbin et al., 1992; Meeks & Murrell, 1997), the present findings provide some rationale for the generic emphasis that many community mental health programs place on augmenting clients' natural networks (Becker et al., 1998). Further, the present results concerning the link between size of family networks and satisfaction lend support to the emphasis that a growing number of mental health programs place on enhancing family ties (Aubry et al., 2000). However, future research considering the processes through which more social contacts and positive outcomes are linked would be invaluable in maximizing these services and tailoring them to individual need.

Limitations and Future Considerations

Undoubtedly, the most important shortcoming of this study is sample size, a common problem with clinical research. Although recruitment of clients for participation in the study was sought from 6 different MHCSS programs serving approximately 289 individuals over a period of 1 year, the final sample comprised only 73 clients. The generalizability of the findings is

further limited given that the sample was one of convenience, and not randomly selected. In essence, case managers were the “gatekeepers” to participation because they chose which clients to approach with information about the study. Case managers’ decisions were likely based on factors such as their perceptions of client ability to complete two separate and lengthy interviews, client receptivity to participating in a research project (and therefore to inviting researchers into his or her home) and the ease with which clients could be contacted by the researchers. As such, the current findings about the relationships between environmental, transactional and psychological variables must be tempered with the knowledge that their generalizability is limited to the present sample of MHCSS clients. Nevertheless, the representativeness of the convenience sample was bolstered by the fact that sample characteristics, for the most part, matched population characteristics for those variables that could be compared (i.e., gender, age, education level and employment status).

Although working with clinical populations (especially those who live independently in the community) presents inherent research difficulties, future work examining the bridge between social network characteristics and transactions and SRV theory should ideally be undertaken with a larger sample of individuals, and preferably within a randomized sample design. Moreover, a longitudinal framework would be invaluable in defining not only the characteristics of these variables, but also the processes by which they may lead to improved client outcomes.

To truly understand the transactional nature of an individual’s social relationships, future research should also move beyond the self-report methodology used in the present study. Indeed, researchers within the field of social support have demonstrated the feasibility of using multiple perspectives to examine agreement between respondents and network members about the nature

of respondents networks and transactions, and to examine the degree to which perceptions about the dyadic relationship are shared between a respondent and a network member (Stein, Rappaport, & Seidman, 1995). Moreover, gaining multiple perspectives on an individual's network transactions may be one way in which to describe the mechanisms that relate social transactions in a network context to aspects of psychological well-being (Stein et al., 1995).

From a theoretical vantage point, the current study is perhaps guilty of tackling too broad a construct, particularly where SRV theory is concerned. Although PASSING is specifically designed to quantify the degree to which an environment is socially valued, its range is expansive and incorporates a multitude of constructs including multidisciplinary ideas of deviancy, human development, social role theory, and social integration (Lemay, 1995). As such, the theory is difficult to test from an empirical perspective, because of the difficulty in explaining the specific mechanisms by which it relates to other constructs. To wit, the present results support the idea that a more socially valued environment is related to greater life satisfaction and greater satisfaction with support received. Nevertheless, the nature of the theory as reflected in the PASSING measure is so pervasive that it is difficult to specify *which* factors in particular are important in enhancing client well-being.

Wolfensberger (2000) notes that implementing the tenets of SRV is an exercise in value decisions, because role-valORIZING actions may have to be tailored to enhance the situation of different devalued groups. Yet, in an age where resources may be in short supply and calls for accountability are numerous, it may not be particularly helpful to suggest to agency administrators that implementation of a more "socially valued environment" be based solely on a vague notion of appealing humanistic values. Rather, more research with the PASSING measure

and its components is key to describing the actual *processes* by which a more socially valued environment can lead to improved client well-being, and which of these processes are most crucial in improving the quality of life of people with psychiatric disabilities.

A more philosophical criticism of the SRV theory relates to its emphasis on achieving what is “normal” for clients. As Abrahamson (1997) suggests, the reference group for SRV is a putative “normal” community with shared values. As such, the lifestyles at which disabled people are expected to aim tend to be based on this hypothetical construct rather than those reflecting more thoroughly the preferences and experiences of those who live them. As discussed previously, individuals with serious mental illness may in fact prefer less intense social relationships. Yet, current service models may emphasize building these networks and transactions because it is considered “normative” rather than because it reflects a true preference for clients.

Another important consideration is whether the goals of SRV may be somewhat idealistic, and even unrealistic, when considered within the broader socioeconomic context that characterizes the lives of individuals with severe and chronic mental illness. In other words, how can service providers assist devalued people to attain more socially valued environments in the absence of financial resources? To wit, 92% of participants in the present sample were unemployed and 73% reported social assistance as their primary source of income (see Table 2). These data were also reflected in qualitative reports by the research team of abhorrent living conditions among many of the participants they interviewed. As such, the data gathered in the present study, in tandem with those from the larger MHCSS population, converge to suggest a staggering level of poverty among those who live with severe and chronic mental illness in

Ottawa-Carleton. This poverty is undoubtedly one of the primary barriers to community integration for people with severe and chronic mental illness (Mallik et al., 1998), and has likely been exacerbated over the last several years by an increasing lack of affordable housing in Ottawa-Carleton and government cut-backs to social supports and services. As Wolfensberger suggests (2000), service providers may help clients to enhance their competency and images by, for example, modifying behaviours and activities, fostering valued social contexts and associations, and enhancing physical contexts and environments. Unfortunately, while these techniques will likely assist clients in developing more valued social roles, their feasibility is curtailed by financial constraints and political realities. As such, program administrators may be drawn to SRV principles from a humanistic perspective, but they may find it difficult to implement its tenets in the face of diminishing resources.

The emphasis of SRV theory on achieving what is “culturally normal” for clients is also somewhat at odds with the growing movement toward peer support among individuals with psychiatric disabilities, including naturally occurring mutual support groups, consumer-run services, and the employment of consumers as providers within clinical and rehabilitative settings (Davidson et al., 1999). Thus, while the challenge to community mental health researchers will be to expand on the SRV factors which may enhance client outcomes, policy-makers and programmers who adhere to SRV theory must find a balance between addressing individuals’ needs as perceived by the dominant culture and reflecting the individual’s preferences for his or her own life experience.

In the same way, there are at least certain tenets of N/SRV theory that may not be compatible with the widespread movement in community mental health services toward relying

on Assertive Community Treatment (ACT) teams to support persons with psychiatric disabilities in the community. Typically, ACT teams employ a range of mental health professionals (e.g., psychiatrist, nurse, social worker) to work with individuals with psychiatric disabilities.

Although the nature of services can differ, most ACT programs aspire to a common set of principles (McGrew, Wilson, & Bond, 1996), including a problem-solving orientation in which staff attend to a variety of specific life issues, provision of most services directly (rather than referring to other services), provision of services in the home and community, provision of intensive services tailored to meet client needs, a focus on providing and developing client supports, low client to staff ratios, a team approach in which the outreach staff meets together daily and shares treatment responsibility for every client on the caseload, and a long-term commitment to clients for as long as services are needed.

In fact, many of these principles are in line with SRV theory, including a focus on enhancing social networks, a problem-solving approach which includes the client, and provision of services within a community setting. Nevertheless, at least certain aspects of the ACT philosophy may be at odds with SRV. For example, an objective of most ACT teams is to “take responsibility” for clients, with a primary emphasis on minimizing symptomatology and keeping them out of hospital (McGrew, Bond, Dietzen & Salyers, 1994). On the contrary, Wolfensberger’s idea of an effective service involves much more: active efforts to enhance clients’ valued social roles, thereby enhancing their ability to grow and develop, to enjoy a culturally normative degree of personal autonomy and choice, to have access to valued experiences and resources, and to lead a lifestyle that would be comparable to that of the majority of others the same age (Wolfensberger & Thomas, 1981). A second difference between SRV

theory and contemporary ACT philosophy involves staff-client relationships. Whereas most ACT teams do not encourage staff-client relationships outside of professional boundaries (McGrew et al., 1996), SRV theory strongly advocates for the blending of personal and professional relationships between staff and clients in an effort to enhance clients' overall well-being (Wolfensberger, 1992). Thus, although not entirely incompatible with ACT philosophy, the implementation of SRV theory into current practice may be somewhat at odds with certain aspects of contemporary community mental health services.

Conclusion

The present study proposed and tested a path model of satisfaction of individuals with psychiatric disabilities. The model posited that after controlling for individual characteristics (i.e., gender and level of functioning), degree of SRV and network size would have both direct and indirect effects on client satisfaction with support received from family and friends, satisfaction with living situation and overall satisfaction with life. In addition, it was posited that the indirect effects were mediated by positive social support and negative social interaction.

Although results of the path analysis did not demonstrate a mediational model between the environmental, transactional and psychological variables, findings did show that receiving more types of positive social support was related to higher satisfaction with life scores. Conversely, the amount of negative social interaction was inversely related to both life satisfaction and satisfaction with support received from family members. From a clinical perspective, these findings underscore the importance of considering positive and negative support transactions in designing and implementing social support interventions.

The present results also extend research with PASSING and SRV theory into the domain of mental health. In particular, results suggest good psychometric properties and predictive validity for the shortened PASSING measure (as developed by Flynn et al., 1999). The present findings also indicate that overall service quality for the MHCSS as measured by the total PASSING score is modest, at best. Moreover, the significant correlations between the Program subscale and level of functioning and gender suggest that individual characteristics may play a role in developing and/or maintaining socially valued environments. In perhaps the best test of the contribution of SRV variables to client satisfaction, results of the post-hoc analyses showed that degree of SRV in the environment made a unique contribution to the variance of satisfaction with support received from friends, even after the effects of gender and client functioning had been removed.

This study has also extended research on the social support networks and processes of individuals with severe and chronic mental illness who live in the community. In particular, estimates of the size of social networks are in keeping with past observations and demonstrate that networks consist of various subgroups including family, friends living companions and professionals. The observed correlations between overall network size and the measures of satisfaction, and between the size of various network segments and measures of satisfaction, underscore the importance that different individuals may have in providing support.

The potential importance of network size to client satisfaction was further highlighted by the post-hoc analyses, which showed that even after the effects of gender and client functioning were removed, a positive relationship existed between overall network size and satisfaction with support received from non-family members, and between family network size and satisfaction

with support received from family. Finally, results also highlight the importance of gender in social support processes in that women in the sample had larger networks and reported receiving more positive social support.

Understanding the factors that contribute to community integration for individuals with psychiatric disabilities remains one of the most important - and yet elusive - goals for researchers, policy-makers and programmers. In advancing research on SRV theory and social support characteristics and processes for individuals with psychiatric disabilities, the present study has moved one step closer to identifying the factors which may assist or detract from successful integration. Moreover, by exploring the potential links between SRV theory and social support research, the present study has provided a unique perspective which holds promise for future researchers of SRV theory and social support processes alike.

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Appendix A

Mental Health Community Support Services Documentation



**CANADIAN MENTAL HEALTH ASSOCIATION
L'ASSOCIATION CANADIENNE POUR LA SANTE MENTALE**

Ottawa-Carleton Branch / Section d'Ottawa-Carleton
1355 BANK STREET SUITE 402 OTTAWA - ONTARIO K1H 8K7
TEL: 757-7791 FAX: 757-7644 TDD: 757-9480

**MENTAL HEALTH COMMUNITY SUPPORT SERVICES
(Formerly Regional Case Management Service)**

PROGRAM DESCRIPTION

The Mental Health Community Support Services for the Ottawa-Carleton region is a program which brings together hospitals and community agencies into a coordinated model of service delivery. Case managers are employed by and located at 10 agencies:

- ◆ Royal Ottawa Hospital
- ◆ Community Care Access Centre
- ◆ Canadian Mental Health Association
- ◆ Ottawa Salus Corporation
- ◆ Canadian Hearing Society
- ◆ Ottawa Chinese Community Services
- ◆ Ottawa-Carleton Immigrant Services Organization (OCISO),
- ◆ Project Upstream
- ◆ Pinecrest-Queensway Community Health Centre
- ◆ Somerset West Community Health Centre.

This model allows for the future inclusion of other agencies who may be interested in providing case management services.

The delivery of case management services is the responsibility of the case managers and their supervisors at each of the 10 agencies. The program provides for one-stop access for the community and clients through one office and phone number located at the Canadian Mental Health Association, Ottawa-Carleton Branch. The program coordinator is responsible for:

- ◆ information and program enquiries
- ◆ receipt and distribution of referrals
- ◆ data collection and analysis
- ◆ maintenance of client and program records
- ◆ program development and implementation
- ◆ evaluation
- ◆ staff training coordination and staff development

The program is managed by an Interagency Management Committee composed of senior administrators of the agencies where the case managers are located, clients and family members. The Committee acts like a Board of Directors in setting broad policy and in guiding program development. The Committee makes recommendations to the Board of Directors of CMHA who are accountable to the Ministry of Health for fiscal and program management.



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..2..

The Interagency Management Committee delegates to the Clinical Coordination Committee the development of guidelines and procedures which operationalize the policy decisions. The Clinical Coordination Committee is composed of the supervisors of the case managers. This Committee and the case managers meet to guide program development and improvement.

The program is an Intensive Case Management Model which features a one-to-one relationship between the case manager and the client. Case managers carry a caseload of a maximum of 20 clients. The program is purposeful and client directed. The case manager assists the client in identifying goals for service, develops an Individual Service Plan, and assists the client in meeting their goals by providing support, counselling, linking to services and advocacy. The service is portable, flexible and permanent. The goal of the service is enable individuals to become citizens of their community with an improved quality of life.

FUTURE DIRECTIONS:

The partner agencies have agreed to expand the table for discussion to include a range of community mental health services. The future planning will address how services can move to increased integration and links to existing and future services.

r:progdes

REGIONAL CASE MANAGEMENT SERVICE

MISSION: To provide and coordinate individualized, client-directed case management services which will reduce the discontinuity of service provision for people who live with a severe and persistent mental health problem in the Ottawa-Carleton Region.

GOALS	PROGRAM OBJECTIVES	FUNCTIONS	ACTIVITIES
<p>GOAL 1</p> <p>To provide a responsibility centre in order to facilitate <u>joint planning, implementation, accountability and service delivery</u> by agencies who offer case management services.</p>	<p>1. To provide a one-stop access for case management services.</p> <p>2. To coordinate <u>service development and delivery.</u></p>	<p>Central Office.</p> <p>Administrative Staff Support.</p>	<ul style="list-style-type: none"> ● one phone number for community access ● send out and receive referrals ● send out acknowledgement letters to clients and referring person ● answer enquiries about program, status of referrals ● maintain waiting list ● assign referrals to agencies ● maintain a central data base on clients that includes referral information, status information, letters, safety concerns, termination summaries ● maintain the administrative structure: <u>Intra-Agency Management, Clinical, Coordination Committee, Case Managers' Committee</u> ● organize Strategic Planning program development and implementation ● prepare budgets and financial reports for MOH ● provide summary information and analyses from data base ● conduct program evaluation

GOALS	PROGRAM OBJECTIVES	FUNCTIONS	ACTIVITIES
<p>GOAL 1</p> <p>To provide a responsibility centre in order to facilitate joint planning, implementation, accountability and service delivery by agencies who offer case management services.</p>	<p>3. To ensure excellence and standardization in delivery of case management services.</p>	<p>Administrative Staff Support.</p>	<ul style="list-style-type: none"> ● provide the following opportunities for case managers to work towards a common practice: <ul style="list-style-type: none"> - training sessions on improving skills and knowledge - case reviews once a month - psychiatric consultations with a community-based psychiatrist at case reviews and on an as needed basis ● program development meetings once a month ● develop Policies and Procedures to guide service delivery in cooperation with case managers and their supervisors ● develop standards for common practice and program operation ● identify unmet needs to committees of CMHA or other advocacy/social action committees ● participate in advocacy committee work
	<p>4. Address systemic barriers to service provision.</p>	<p>Advocacy.</p>	

GOALS	CLIENT OBJECTIVES	FUNCTIONS	ACTIVITIES
<p>GOAL 2</p> <p>To bring long-term portable and flexible assistance to individuals so they become citizens in their community with an improved quality of life.</p>	<p>4. The client accesses the services needed and wanted.</p> <p>5. The client has the skills needed to meet and maintain goals.</p>	<p>Advocate.</p> <p>Teach skills that will enhance community living.</p>	<ul style="list-style-type: none">• protect client's rights• inform client of rights and responsibilities• represent client's rights to various systems, e.g., legal• advocate, negotiate for services• promote independence of action: model, assist, prompt, monitor and encourage skill use• teach client to use services appropriately• provide knowledge about mental illness, monitoring and coping skills• promote recovery - help people grieve• teach relationship skills (including parenting skills)• teach financial management skills• teach maintenance of housing and housekeeping

ADMISSION CRITERIA

A. ESSENTIAL CRITERIA

Individual:

1. Appears to have a severe and persistent mental illness.
2. Is a resident of Ottawa-Carleton.
3. Is 16 years of age or over (except for Youth Worker).
4. Has had frequent breakdowns in community living (i.e., has been hospitalized).
5. Has or may suffer a breakdown in community living because of functional limitations.
6. Has one of the following Service Needs:

- Is using resources inappropriately. This may be an overuse of services or an underusing of services so that needs are not being met.
- Required help to access services.
- Needs advocacy to change service criteria in order to serve the individual or needs to develop a new resource for client.
- Needs assistance/support to accept needed services.

7. Has one or more of the following Support Needs:

- Is isolated without social or family support.
- Lacks professional support.
- Family support ineffective or problematic or in jeopardy or absent.

Ministry of Health definition:

- Diagnosis such as schizophrenia, major affective disorders, personality disorders, paranoid and other psychoses should be present or person demonstrates a pattern of behaviours that indicate a severe and persistent mental illness.
- Disability refers to the fact that the disorder interferes with the person's capacity to organize and complete the activities of daily living.
- Duration may be based on a severe first episode or a chronic nature of the illness.

B. DESIRABLE (These indicators are not essential but reinforce the need for case management.)

- Acknowledgement by client of need for case management services within a six month period of engagement.
- Acknowledgement by client of need to develop or maintain a network.
- Need for services is urgent at time client is being considered.
- Is homeless or at risk of becoming homeless.

C. ADDITIONAL CRITERIA (These indicators may also reinforce the need for case management.)

- Loss of major supports (i.e., family) anticipated.
- Service is needed to maintain recent rehabilitation gains (i.e., from supportive housing or hospital services).
- Individual has multiple problems which require coordination, bridging across and between service systems.

Appendix B

**SHORT-FORM *PASSING* INTERVIEW
CLIENT VERSION**

The following set of questions is to be used as a tool for *PASSING* team leaders in their formal interview with program clients. Some of the questions contained in the interview will be irrelevant to the type of service assessed, and may therefore be deleted as the interview progresses. It may also become apparent that interview questions have been answered elsewhere in the evaluation (e.g., program documents, observation), in which case interviewers may simply proceed to the next interview question. Finally, additional questions not contained in the interview may also be deemed necessary to gain enough information about the specific item rating. Please remember that **INDEPENDENT** ratings should be made by each *PASSING* rater, prior to the conciliatory meeting.

Part A of the interview contains questions about the setting in general. The purpose of this section is to gain a general sense of who and what the program is about, and to build rapport with the client. The questions in **Parts B, C and D** address the characteristics of the program, its setting, and its accessibility. In most cases, the data to address the interview questions will be obtained by asking clients directly, or from answers already given in Part A. In addition, information to address some questions will be derived in part or full from interviewer observations of the setting itself. Where interviewer observation is required to address a question, a notation will be made in the body of the text to refer to **Part E**, the *Interviewer Observation Sheet*.

Before commencing the interview, the interviewers should do the following:

- introduce themselves
 - explain that the interview is being conducted as part of a study on community support for people with psychiatric disabilities
 - outline the content of the interview and other parts of the visit using the recruitment protocol
 - ask the client if he or she has any questions
 - have the client sign the informed consent form
 - indicate that he/she will be moving quickly through the questions to keep the interview length to a minimum
-

PART A - GENERAL OVERVIEW OF THE PARTICIPANTS & PROGRAM

1. *Tell us a little about yourself. client name. If not offered at some point, ask the following:*

a) Name

b) Age; When is your birthday?

c) How long have you lived here?

d) Where did you live before you came here? How about before your last place of residence?

e) Where are you originally from?

f) Where does your family live? How often do they have contact with them?

g) What are some of your interests?

h) Tell me a little about your school and work history.

Next I would like to ask you about the services you receive from _____ (community support provider's name here)

i) Tell us about how you found out about and became involved with this service.

j) What kinds of things does the service help you with?

k) Who is this service meant for? Do you know anyone else who uses this service?

l) What kind of challenges do you face that the service can help you with? When did these challenges become a problem for you? What has happened in your life as a result? Have you ever been hospitalized because of these challenges?

Include any other relevant information in the space provided below:

PART B - PROGRAM RATINGS

Next, I want to ask you about the people you live with and other people you spend time with.

1. R1231 - Image projection of intra-service client grouping - social value

a) Who lives with you here in this house (residence, boarding house, apartment)? Tell me about them (*query age, gender specifically*).

b) Do the other people who live here have psychiatric disabilities? Do these problems limit what they do?

c) Do the other people who live here have any other kinds of disabilities? Do these disabilities limit what they do?

2. R124 - Image-related other integrative client contacts & personal relationships

- a) Whom do you regularly spend time with? How often do you spend time with that person(s)?
- b) Do any of these people have a psychiatric disability? Do they have any other kind of disability?
- c) What kinds of things do you normally do when you spend time with each of these people?
- d) Where do you spend time together?

3. R132 - Image projection of program activities and activity timing

- a) Describe what your normal daily schedule is like, starting when you get up in the morning.
- b) Is your schedule the same on weekends?

4. R133 - Promotion of client autonomy and rights

- a) Do you hold the lease or mortgage for this house (residence, boarding house, apartment)? If not, who does?
- b) Who makes the decisions here about routines, rules, visitors, etc.?
- c) If there is something you don't like about the service you are receiving, who would you tell and what can you do about it?

Now I would like you to tell me a little about the things you own.

5. R142 - Image-related personal possessions

a) What did you bring with you when you moved here?

b) Do you own the things here in your house (residence, boarding house, apartment) now? If not, who does?

c) Did the service help you buy what you needed when you moved here? Who helps you if you need to buy something?

d) SEE INTERVIEWER OBSERVATION SHEET

6. R2212 - Competency-related intra-service client grouping - composition

a) On what basis are people selected to live here?

b) Would you say that this house (residence, apartment, boarding house) meets your needs? Why or why not?

c) (*Omit if person lives alone*) Do you think that this house (residence, apartment, boarding house) meets the needs of the other person/people who live here?

7. R222 - Competency-related other integrative client contacts & personal relationships

a) SEE INTERVIEWER OBSERVATION SHEET

8. R223 - Life-enriching interactions with among clients, service personnel, & others

a) How do you get along with the people who work at the program? How would you describe your relationship with your worker?

b) How often do you see someone from the program (e.g., service worker)?

b) How does everyone else who lives here get along with the program staff?

9. R231 - Program address of clients' service needs

a) What do you think is your most important need (e.g., better housing, medical care, income, work)?

b) How does the service meet the need you just identified?

c) Did your worker, name of worker, help you to get a place here?

c) Is there something that your worker could do to better meet your needs, when it comes to where you live?

10. R232 - Intensity of activities and efficiency of time use

a) Who helps you here when things need doing or fixing? What about if there is a problem (e.g., a water leak)?

b) Is that person available all the time? What do you do if you can't reach him or her?

c) How long do you think you will live here? After/If you leave here where do you think you will go?

11. R233 - Competency-related personal possessions

a) Do you have any special talents or things you like to do like playing a musical instrument, doing a hobby or playing a sport? How often are you able to do this talent/hobby/sport? Do you have all of the equipment you need to do it? If no, could you go to the service to help you purchase what you need?

b) Do you have any room or place here to store your things?

c) SEE INTERVIEWER OBSERVATION SHEET

PART C - SETTING RATINGS

1. INFORMATION FOR R1111 to R1151, see *INTERVIEWER OBSERVATION SHEET*

2. R1152 - Image projection of setting

a) How old is this house (residence, boarding house, apartment)?

b) Was it ever used for anything other than a residence?

c) Do you know who lived here before you (and your co-residents) did?

3. R121 - Image projection of program-to-program juxtaposition

a) What is the neighbourhood here like?

b) Are there other types of health or social services around here? If so, what kinds? Who do they serve?

4. R122 - Service-Neighbourhood Assimilation Potential

a) What are your neighbours here like?

b) Do you seem them much? How often?

c) Do you know them by name? Do you talk to them? Do you ever go out with them or have them over to visit?

d) Do any other people in your neighbourhood have a psychiatric or any other type of disability?

PART D - ACCESSIBILITY RATINGS**1. R2111 - Setting Accessibility - Clients & Families**

a) How easy is it to get around in your neighbourhood (i.e., availability of bus routes, taxis, etc.?)

b) Is it easy for visitors (such as your family) to find your place?

c) **SEE INTERVIEWER OBSERVATION SHEET**

2. R2112 - Setting Accessibility - Public

a) **SEE INTERVIEWER OBSERVATION SHEET**

3. R212 - Availability of Relevant Community Resources

a) What kinds of stores, banks, restaurants, or other businesses are nearby here?

b) How far away from here are the things that you need like a grocery store or bank? How do you get to them (e.g., drive, taxi, bus)?

c) How safe do you feel your neighbourhood is? (e.g., break-ins, violence). Are you comfortable walking around in the neighbourhood during the day? At night?

d) Sometimes neighbourhoods take on special characteristics or qualities because of their location or the people who live there. Is your neighbourhood "known" for anything? (e.g., "Chinatown", "The Glebe", the gay district).

Thank you so much for your participation in this interview. We very much appreciate your time!

PART E
INTERVIEWER OBSERVATION SHEET
for SELECTED RATINGS

<i>PASSING RATING</i>	<i>QUESTIONS TO BE ADDRESSED</i>	<i>INTERVIEWER OBSERVATIONS</i>
<p style="text-align: center;"><u>R142</u></p> <p>Image-related personal possessions</p>	<ul style="list-style-type: none"> ▶ What kinds of possessions does the client have and use? ▶ What kinds of images do their possessions convey? ▶ Are the images conveyed age-appropriate? ▶ Does the agency help to support the acquisition of client personal possessions which carry valued images? 	
<p style="text-align: center;"><u>R222</u></p> <p>Competency-related other integrative contacts and personal relationships</p>	<ul style="list-style-type: none"> ▶ Does the client spend time with people who are not fellow clients and staff of the program? ▶ How often? ▶ Who are these other people? ▶ Where do the activities take place? ▶ How are clients' behaviours and competencies affected by these interactions? ▶ <i>SEE ALSO responses to information obtained from R124 (p. 5)</i> 	
<p style="text-align: center;"><u>R233</u></p> <p>Competency-related personal possessions</p>	<ul style="list-style-type: none"> ▶ What kinds of competency-related possessions does the client have? ▶ Does the program help the client to obtain and maintain these possessions? ▶ Does the program provide space for the clients to keep their possessions? 	
<p style="text-align: center;"><u>R1111</u></p> <p>Setting-Neighbourhood Harmony</p>	<ul style="list-style-type: none"> ▶ What is the overall physical character of the neighbourhood in which the program is located? ▶ What is the external physical character of the setting? ▶ Does the external physical character of the setting match the general physical character of the other settings in the neighbourhood? ▶ If the setting matches the neighbourhood, does it enhance the image of clients? If not, what are the negative images conveyed? 	

<p><u>R1112</u></p> <p>Program-Neighbourhood Harmony</p>	<ul style="list-style-type: none"> ▶ What is the nature of the program provided by the service? ▶ What is the nature or general character of the neighbourhood in which the program is located? ▶ Does the nature of the program match the general nature of the neighbourhood? Do they clash? ▶ If there is a match, how is it enhancing to the image of clients? If there is not a match, how is the image of clients harmed? 	
<p><u>R1131</u></p> <p>External Setting Appearance Congruity with Culturally Valued Analogue</p>	<ul style="list-style-type: none"> ▶ What would settings that house similar life functions look like for valued people? ▶ What life function does the exterior of the setting suggest to a casual observer who is unfamiliar with the program? ▶ In the exterior of a typical, normative analogue to the service being assessed would the observer expect to find certain design features, furnishings, etc.? 	
<p><u>R1141</u></p> <p>External Setting - Age Image</p>	<ul style="list-style-type: none"> ▶ How old are the clients in the service being assessed ▶ How old would an observer think the clients were if the observer looked only at the design and appointments of the exterior setting? ▶ Does the external setting match the clients' ages and enhance the positive aspects of their age identities? 	
<p><u>R1151</u></p> <p>Image Projection of Setting - Physical Proximity</p>	<ul style="list-style-type: none"> ▶ What is the service located next door to, across the street from, in the same facility as, in the same neighbourhood as (<i>excluding other service programs</i>)? ▶ What are the histories of the sites and settings located near the setting? ▶ What positive and negative images are associated with the sites and settings located near the setting? How do these images affect the age image of the clients? 	
<p><u>R2111 & 2112</u></p> <p>Setting accessibility a) <i>clients & families</i> b) <i>public</i></p>	<ul style="list-style-type: none"> ▶ How close is the service to transportation routes (i.e., major highways, bus lines, taxi stands) ▶ Is there sufficient parking available at the setting? ▶ How expensive is transportation? 	

NOTE TO INTERVIEWER: Please include below any client or setting characteristics that may have affected the reliability of this interview (e.g., the client was not feeling well, numerous distractions during interview, the presence of others in addition to the co-interviewers during the interview).

PASSING Score Sheet

Name of service

Date

NUMBER	DESCRIPTION					
R1231	Image Projection of Intra-Service Client Grouping - Social Value (p.189)	1	2	3	4	5
R124	Image-Related Other Integrative Client Contacts & Personal Relationships (p.209)	1	2	3	4	5
R1251	Service Worker-Client Image Transfer (p.221)	1	2	3	4	5
R132	Image Projection of Program Activities & Activity Timing (p.253)	1	2	3	4	5
R133	Promotion of Client Autonomy & Rights (p.265)	1	2	3	4	5
R142	Image-Related Personal Possessions (p.287)	1	2	3	4	5
R1431	Image Projection of Personal Labeling Practices (p.299)	1	2	3	4	5
R2212	Competency-Related Intra-Service Client Grouping - Composition (p.419)	1	2	3	4	5
R222	Competency-Related Other Integrative Client Contacts & Personal Relationships (p.429)	1	2	3	4	5
R223	Life-Enriching Interactions Among Clients, Service Personnel & Others (p.439)	1	2	3	4	5
R224	Program Support for Client Individualization (p.451)	1	2	3	4	5
R225	Promotion of Client Socio-Sexual Identity (p.461)	1	2	3	4	5
R231	Program Address of Clients' Service Needs (p.473)	1	2	3	4	5
R232	Intensity of Activities & Efficiency of Time Use (p.485)	1	2	3	4	5
R233	Competency-Related Personal Possessions (p.497)	1	2	3	4	5
SETTING						
R1111	Setting-Neighborhood Harmony (p.43)	1	2	3	4	5
R1112	Program-Neighborhood Harmony (p.53)	1	2	3	4	5
R1131	External Setting Appearance Congruity With Culturally Valued Analogue (p.87)	1	2	3	4	5
R1141	External Setting Age Image (p.109)	1	2	3	4	5
R1151	Image Projection of Setting - Physical Proximity (p.131)	1	2	3	4	5
R1152	Image Projection of Setting - History (p.141)	1	2	3	4	5
R121	Image Projection of Program-to-Program Juxtaposition (p.165)	1	2	3	4	5
R122	Service-Neighborhood2 Assimilation Potential (p.175)	1	2	3	4	5
SETTING ACCESSIBILITY						
R2111	Setting Accessibility - Clients & Families (p.345)	1	2	3	4	5
R2112	Setting Accessibility - Public (p.355)	1	2	3	4	5
R212	Availability of Relevant Community Resources (p.365)	1	2	3	4	5

Appendix C

Global Assessment of Functioning Scale (American Psychiatric Association, 1994)

Global Assessment of Functioning (GAF) Scale

Consider psychological, social, and occupational functioning on a hypothetical continuum of mental health-illness. Do not include impairment in functioning due to physical (or environmental) limitations.

Code (Note: Use intermediate codes when appropriate, e.g., 45, 68, 72.)

- 100 Superior functioning in a wide range of activities, life's problems never seem to get out of hand, is sought out by others because of his or her many positive qualities. No symptoms.
- 91
- 90 Absent or minimal symptoms (e.g., mild anxiety before an exam), good functioning in all areas, interested and involved in a wide range of activities, socially effective, generally satisfied with life, no more than everyday problems or concerns (e.g., an occasional argument with family members).
- 81
- 80 If symptoms are present, they are transient and expectable reactions to psychosocial stressors (e.g., difficulty concentrating after family argument); no more than slight impairment in social, occupational, or school functioning (e.g., temporarily falling behind in schoolwork):
- 71
- 70 Some mild symptoms (e.g., depressed mood and mild insomnia) OR some difficulty in social, occupational, or school functioning (e.g., occasional truancy, or theft within the household), but generally functioning pretty well, has some meaningful interpersonal relationships.
- 61
- 60 Moderate symptoms (e.g., flat affect and circumstantial speech, occasional panic attacks) OR moderate difficulty in social, occupational, or school functioning (e.g., few friends, conflicts with peers or co-workers).
- 51
- 50 Serious symptoms (e.g., suicidal ideation, severe obsessional rituals, frequent shoplifting) OR any serious impairment in social, occupational, or school functioning (e.g., no friends, unable to keep a job).
- 41
- 40 Some impairment in reality testing or communication (e.g., speech is at times illogical, obscure, or irrelevant) OR major impairment in several areas, such as work or school, family relations, judgment, thinking, or mood (e.g., depressed man avoids friends, neglects family, and is unable to work; child frequently beats up younger children, is defiant at home, and is failing at school).
- 31
- 30 Behavior is considerably influenced by delusions or hallucinations OR serious impairment in communication or judgment (e.g., sometimes incoherent, acts grossly inappropriately, suicidal preoccupation) OR inability to function in almost all areas (e.g., stays in bed all day; no job, home, or friends).
- 21
- 20 Some danger of hurting self or others (e.g., suicide attempts without clear expectation of death; frequently violent; manic excitement) OR occasionally fails to maintain minimal personal hygiene (e.g., smears feces) OR gross impairment in communication (e.g., largely incoherent or mute).
- 11
- 10 Persistent danger of severely hurting self or others (e.g., recurrent violence) OR persistent inability to maintain minimal personal hygiene OR serious suicidal act with clear expectation of death.
- 1
- 0 Inadequate information.

**INTERVIEWER RATING OF CLIENT'S
FUNCTIONING ON GAF:**

Appendix D

**SHORT-FORM *PASSING* INTERVIEW
STAFF VERSION**

The following set of questions is to be used as a tool for *PASSING* team leaders in their formal interview with program staff. Some of the questions contained in the interview will be irrelevant to the type of service assessed, and may therefore be deleted as the interview progresses. It may also become apparent that interview questions have been answered elsewhere in the evaluation (e.g., program documents, observation), in which case interviewers may simply proceed to the next interview question. Finally, additional questions not contained in the interview may also be deemed necessary to gain enough information about the specific item rating. *Please remember that INDEPENDENT ratings should be made by each PASSING rater, prior to the conciliatory meeting.*

Part A of the interview contains questions about the setting in general. The questions in **Parts B & C** address in detail the characteristics of the program and its setting. In most cases, the data to address the interview questions will be obtained by asking staff directly, or from answers already given in Part A. In addition, information to address some questions will be derived in part or full from interviewer observations of the staff and their references to clients. Where interviewer observation is required to address a question, a notation will be made in the body of the text to refer to **Part D**, the *Interviewer Observation Sheet*.

Before commencing the interview, the interviewer should do the following:

- ▶ introduce himself or herself
- ▶ ask all members of the team to introduce themselves (including a brief description of their jobs)
- ▶ explain that the interview is being conducted as part of an evaluation to help to improve the service
- ▶ provide information from the recruitment protocol to obtain informed consent
- ▶ ask the staff members if they have any questions
- ▶ indicate that he/she will ask a variety of questions, and will proceed quickly, to keep the interview length to a minimum

PART A - GENERAL OVERVIEW OF THE PROGRAM

To begin, I'd like to ask you some general questions about the program in which you work and your role in the program.

1. Please tell us bit about your service, its history, etc.

2. What is your job title? How long have you been in that position?

3. Why was the program founded?

4. Who is the service meant for?

6. What is the present mission statement or goal of the service?

Include any other relevant information in the space provided below:

PART B - PROGRAM RATINGS

In the next section, the questions I'll be asking questions about clients in the program.

1. R1231 - Image projection of intra-service client grouping - social value

a) Who are the people being served by your program?

i) what impairments/devalued conditions do they have?

ii) what degree of impairment does each have?

b) How visible are those impairments?

c) Are any non-devalued people served? By devalued we mean those persons who are viewed negatively by the general public. If so, what is the proportion of devalued to non-devalued clients?

d) Are both sexes served in the program? If you are arranging housing for clients, how would it be determined who will live with them?

2. R124 -Image-related other integrative client contacts & personal relationships

a) Whom do clients regularly spend time with, other than program staff and other clients?

i) What activities do they do together?

ii) Where do they spend time together?

b) Do clients of the program participate in activities with clients of other programs? Who are the clients of the other programs?

c) What does the service do to promote interactions between clients and other people (aside from program staff and clients)?

3. R1251 - Service worker - client image transfer

Next I'd like to ask you some brief questions about your own experience for the job you are doing.

a) What kind of training have you had for this job?

b) What other type of training or life experiences did you have before you worked here?

c) **SEE INTERVIEWER OBSERVATION SHEET**

4. R133 - Promotion of client autonomy and rights

Now we're back to questions about clients and their role in the program.

a) What kind of involvement do clients have in the way program decisions are made, and the way the program is run?

b) Does the program have a clearly defined client "bill of rights" or anything similar?

c) Does the program assist clients to exercise their autonomy and rights in the community? How?

5. R142 - Image-related personal possessions

- a) What material items does the program provide to clients, if any?

- b) What kinds of things do clients bring with them to the service?

6. R1431 - Image projection of personal labelling practices

- a) **SEE INTERVIEWER OBSERVATION SHEET**

6. R2212 - Competency-related intra-service client grouping - composition

- a) On what basis are people selected to participate in the program? On what basis, if any, are they grouped together in helping them to locate housing?

- b) What is the range of abilities and competencies of the clients who live together?

- c) How does the presence of each client living together affect the competencies of fellow clients?

7. R222 - Competency-related other integrative client contacts & personal relationships

- a) What activities (if any) do clients engage in with people who are not fellow clients or staff of the program?
 - i) How often?

 - ii) Who are these people?

iii) Where do they spend time together? What activities do they do?

b) How do these interactions affect the behaviours and competencies of the clients?

8. R223 - Life-enriching interactions with among clients, service personnel, & others

a) What kinds of interactions do staff try to model to clients?

b) How often do you see each client? What do you do when you meet?

c) Does the agency have any directions about how you should have contact with clients (e.g., a "code of conduct")?

9. R224 - Program support for client individualization

a) What processes and procedures does a new client go through before being accepted into the program? (e.g., screening, interview)

i) Are they the same for everyone?

b) Does each client have an individual plan?

c) How are new staff oriented to clients?

d) How do you accommodate individual requests and/or idiosyncracies?

e) How much personal information do you collect on clients?

10. R225 - Program support for client socio-sexual identity

a) Does the program serve one or both sexes?

b) Are program staff one or both sexes?

c) What roles do male and female staff play vis-a-vis clients? Is there any differentiation in worker roles according to the sex of the worker?

d) Does the program support friendships for clients with the opposite sex or someone of the same sex, depending on their preference? If yes, how?

11. R231 - Program address of clients' service needs

a) What would you say workers see as the primary purpose of the program?

b) What do they see as clients' most pressing needs?

c) What does the service do to address these needs?

d) What would the service like to do to better to address needs?

12. R233 - Competency-related personal possessions

a) Do any of your clients have special talents, interests or abilities that might be compensated for by certain kinds of material supports and equipment? (e.g., playing a musical instrument, hobbies, athletic abilities)?

i) If so, are they provided? Why or why not? Who owns the equipment if it is provided?

b) Does the service encourage clients to acquire things which will enhance their abilities?

c) Are there any guidelines as to what personal possessions are preferable or permitted?

PART C - SETTING RATINGS**1. R121 - Image projection of program-to-program juxtaposition**

a) What considerations does the program give to neighbourhood settings when housing locations are chosen for clients?

Thank you so much for your participation in this interview. We very much appreciate your time!

PART D

INTERVIEWER OBSERVATION SHEET
for SELECTED RATINGS

<i>PASSING RATING</i>	<i>QUESTIONS TO BE ADDRESSED</i>	<i>INTERVIEWER OBSERVATIONS</i>
<p><u>R11251</u></p> <p>Service worker-client image transfer</p>	<ul style="list-style-type: none"> ▶ how are the staff dressed and groomed? ▶ do any staff display culturally devalued characteristics? (e.g., physical, personality, emotional) 	
<p><u>R1431</u></p> <p>Image projection of personal labelling practices</p>	<ul style="list-style-type: none"> ▶ What language do service workers use to refer to the clients? ▶ What tone of voice do service workers use in referring to clients? ▶ Do the labels, forms of address and tones of voice used by staff match the cultural standard for valued people who are the same ages as the clients? ▶ If staff/client interactions are viewed, what do they suggest about how they view clients? 	

NOTE TO INTERVIEWER: Please include below any staff or setting characteristics that may have affected the reliability of this interview (e.g., the staff member was not feeling well, numerous distractions during interview, the presence of others in addition to the co-interviewers during the interview).

Appendix E

Social Network Measure (Nelson et al., 1992)

*I'd like you to list the initials of the people who are important in your life, and with whom you've had contact in the past nine months. There are four categories: family, living companions, friends, and professionals. Please list only those people who are really important to you, and if two people you list have the same initials, differentiate them in some way. Also, I would like it if you could tell me if any of the people you list have a psychiatric disability. (Interviewer - please * those network members who have a psychiatric disability).*

A. Family

INITIALS	ROLE (e.g., parent, sib, spouse)	SEX (M/F)	D/K	N/A
1)			8	9
2)			8	9
3)			8	9
4)			8	9
5)			8	9
6)			8	9
7)			8	9
8)			8	9
9)			8	9
10)			8	9

Interviewer, please note: TOTAL NUMBER OF FAMILY MEMBERS _____

TOTAL NUMBER OF PSYCHIATRIC PATIENTS _____

TOTAL NUMBER OF WOMEN _____

TOTAL NUMBER OF MEN _____

B. Living Companions

INITIALS	SEX (M/F)	D/K	N/A
1)		8	9
2)		8	9
3)		8	9
4)		8	9
5)		8	9
6)		8	9
7)		8	9
8)		8	9
9)		8	9
10)		8	9

Interviewer, please note: **TOTAL NUMBER OF LIVING COMPANIONS** _____

TOTAL NUMBER OF PSYCHIATRIC PATIENTS _____

TOTAL NUMBER OF WOMEN _____

TOTAL NUMBER OF MEN _____

C. Friends

INITIALS	ROLE (e.g., co-worker, just a friend, fellow patient)	SEX (M/F)	D/K	N/A
1)			8	9
2)			8	9
3)			8	9
4)			8	9
5)			8	9
6)			8	9
7)			8	9
8)			8	9
9)			8	9
10)			8	9

Interviewer, please note: **TOTAL NUMBER OF FRIENDS** _____

TOTAL NUMBER OF PSYCHIATRIC PATIENTS _____

TOTAL NUMBER OF WOMEN _____

TOTAL NUMBER OF MEN _____

D. Professionals/Community Service Workers

INITIALS	ROLE (e.g., psychiatrist, social worker, housing staff)	SEX (M/F)	D/K	N/A
1)			8	9
2)			8	9
3)			8	9
4)			8	9
5)			8	9
6)			8	9
7)			8	9
8)			8	9
9)			8	9
10)			8	9

Interviewer, please note: **TOTAL NUMBER OF PROFESSIONALS/SERVICE WORKERS** _____

TOTAL NUMBER OF PSYCHIATRIC PATIENTS _____

TOTAL NUMBER OF WOMEN _____

TOTAL NUMBER OF MEN _____

Appendix F

Modified Inventory of Socially Supportive Behaviours (Hall & Nelson, 1996)

I am interested in learning about some of the ways that you feel people have helped you or hurt you over the past four weeks. Below you will find a list of activities that people have done for you, to you, or with you in recent weeks. Please listen to each item carefully and indicate how often these activities happened to you during the past four weeks.

	NOT AT ALL	ONCE OR TWICE	ABOUT ONCE/WEEK	SEVERAL TIMES/ WEEK	ABOUT EVERY DAY	D/K	N/A
1) Told you that s/he feels very close to you	1	2	3	4	5	8	9
2) Called you a negative name (e.g., "dummy", "idiot", "fool")	1	2	3	4	5	8	9
3) Said things that made your situation seem clearer and easier to understand	1	2	3	4	5	8	9
4) Told you to try to forget about a problem	1	2	3	4	5	8	9
5) Told you that you are OK just the way you are	1	2	3	4	5	8	9
6) Acted emotionally cold and indifferent to you	1	2	3	4	5	8	9
7) Helped you to solve a problem by yourself	1	2	3	4	5	8	9
8) Told you not to do anything about a problem by yourself	1	2	3	4	5	8	9
9) Let you know that s/he will always be around if you need help	1	2	3	4	5	8	9
10) Made critical comments about you	1	2	3	4	5	8	9
11) Assisted you in setting a goal for yourself	1	2	3	4	5	8	9
12) Told you to make light of a situation that was very serious troubling for you	1	2	3	4	5	8	9
13) Expressed interest and concern in your well-being	1	2	3	4	5	8	9
14) Ridiculed or put you down in some way	1	2	3	4	5	8	9

	NOT AT ALL	ONCE OR TWICE	ABOUT ONCE/WEEK	SEVERAL TIMES/ WEEK	ABOUT EVERY DAY	D/K	N/A
15) Taught you how to do something	1	2	3	4	5	8	9
16) Encouraged you to avoid someone who was bothering you	1	2	3	4	5	8	9
17) Expressed esteem or respect for a talent or personal quality of yours	1	2	3	4	5	8	9
18) Was angry and impatient with you	1	2	3	4	5	8	9
19) Helped you understand why you didn't do something well	1	2	3	4	5	8	9
20) Suggested that you block out something that was bothering you and to go on as if nothing had happened	1	2	3	4	5	8	9
21) Listened to you talk about your private feelings	1	2	3	4	5	8	9
22) Said you were incompetent in some way	1	2	3	4	5	8	9
23) Gave you information on how to do something	1	2	3	4	5	8	9
24) Encouraged you to wait for a problem to blow over	1	2	3	4	5	8	9
25) Comforted you by showing you some physical affection	1	2	3	4	5	8	9
26) Did not listen to you when you wanted to talk about something personal and private	1	2	3	4	5	8	9
27) Helped you figure out what you wanted to do	1	2	3	4	5	8	9
28) Suggested that you take a drink or a pill to relax	1	2	3	4	5	8	9

Appendix G

Satisfaction With Life Scale (Diener et al., 1985)

I am going to give you five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item. Please be honest and open in your responding.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neither Agree or Disagree
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

1. In most ways my life is close to my ideal
2. The conditions of my life are excellent
3. I am satisfied with my life
4. So far I have gotten the important things I want in life
5. If I could live my life over, I would change almost nothing

Appendix H

**Lehman Quality of Life Interview
Social Support & Living Situation Subscales (Lehman, 1988)****Social Support Subscale**

Please look at the Delighted - Terrible scale again. *How do you feel about:*

- | | |
|-------------------------|----------------------|
| 1 = Terrible | 4 = Mixed |
| 2 = Unhappy | 5 = Mostly Satisfied |
| 3 = Mostly Dissatisfied | 6 = Pleased |
| | 7 = Delighted |

- a. The things you do with other people?
- b. The amount of time you spend with other people?
- c. The people you see socially?
- d. How you get along with other people in general?
- e. The chance you have to know people with whom you can feel really comfortable?
- f. The amount of friendship in your life?

Family Subscale

Please look at the Delighted-Terrible Scale again. *How do you feel about:*

- a. Your family in general?
- b. How often you have contact with your family?
- c. The way you and your family act toward each other?
- d. The way things are in general between you and your family?

Satisfaction with Living Situation Subscale

Please look at the Delighted-Terrible Scale again. *How do you feel about:*

- a. The living arrangements where you live?
- b. The privacy you have there?
- c. The prospect of staying on where you currently live for a long time?

Appendix I

Recruitment Protocol for Clients - PASSING study

Hello, my name is _____ and I am a researcher who works with Tim Aubry at the University of Ottawa. I received your telephone number from your support worker at _____ (name of agency offering support services) who told me that you were interested in participating in a study on community services and the quality of life of people with psychiatric difficulties living in the community. I am calling to see if we can set up a time to meet about the study. First, however, let me tell you what will be required if you choose to participate.

Specifically, the purpose of the study is to find out more about the quality of your living situation and your social relations and how these relate to the abilities of your support worker. If you agree to be part of the study, you will participate in two 90 minute interviews at your home on different days. During these two separate interviews, you will be asked some questions about your living situation, the people in your life, your neighbourhood, the services you are receiving, and your support worker. We will also ask questions about how satisfied you are with these aspects of your life. Also, we will tour your neighbourhood and your home. You will be paid \$10 for your time at the completion of each interview, for a total of \$20. Finally, if you agree to participate, we will interview your support worker about his or her job and the services he or she is providing.

You are free to withdraw from the study at any time during the course of the interview without any penalty occurring to you. Also, you can refuse to answer any questions that you find uncomfortable. All of the information collected during the interview will remain strictly confidential and will only be used for research purposes. Are you still interested in participating? *If yes, schedule an interview time and obtain directions to the client's residence...*

Date:

Time:

Directions:

If no, thank the client for his or her time...If the client requests any more information, please refer him or her to Tim at 562-5800 (ext. 4815)

Appendix J

Informed Consent Form for Clients

An important condition of doing research with human participants is that written consent must be obtained from them. This research condition is mandatory for both the University of Ottawa and research funding agencies in order to guarantee respect for those participating in the study.

I, _____, am interested in participating in the study on characteristics of effective service providers to persons with psychiatric difficulties conducted by Tim Aubry, Associate Professor at the University of Ottawa, and his associates. The purpose of the study is to examine community services and the quality of life of people with psychiatric difficulties living in the community. I understand that the study focuses on the quality of my living situation and my social relations and how these relate to the abilities of my support worker.

If I agree to participate, my participation will involve two 90 minute interviews at my home, on two separate occasions. During these interviews I will be asked questions about my living situation, my neighbourhood, the services that I am receiving, the people in my life, and my support worker. I will be paid \$10 at the end of each interview, for a total of \$20. By giving my consent to participate, I also know that the researchers will interview my support worker and his or her supervisor about the services I receive from them.

I realize that my decision to participate or not will have no effect on the services I receive from my support worker now or in the future. I understand that I am free to withdraw from the study at any time during the course of the interview without any penalty occurring to me. As well, I understand that I can refuse to answer any questions that I find uncomfortable. I have also received a guarantee from the researcher that all the information collected in the study will remain strictly confidential and will only be used for research purposes.

There are two copies of the consent form, one of which you may keep. If you have any questions about the study, you can call Tim Aubry at 562-5800 Ext. 4815. Thank you for your time.

PARTICIPANT'S SIGNATURE _____

DATE _____

WITNESSED BY _____

RESEARCHER'S SIGNATURE _____

A summary of the findings of this study will be made available to interested participants in the summer months of 1999. Do you wish to have a copy of the summary sent to you? *If yes, record the client's address below:*

Appendix K

Recruitment Protocol for Support Providers

Hello, my name is _____ and I am a researcher who works with Tim Aubry at the University of Ottawa. We are currently doing a study on the characteristics of effective service providers and how these characteristics relate to the quality of the living situation of clients whom they are serving. I am calling to see if we can set up a time to meet about the study. First, however, let me tell you what will be required if you choose to participate.

Your participation will involve a 90 minute interview at your work place, in which you will be asked questions about the program you work for, your role within the program, and your work history. If you agree to participate, your supervisor will also complete a questionnaire rating your level of competency in a number of skill areas related to your work. Agreeing to participate also means that you will contact clients (with whom you have worked for at least 6 months) to ask them if a researcher may contact them about participating in the study.

It is important for you to know that your decision to participate or not will have no effect on the conditions of your employment. You are also free to withdraw from the study at any time during the course of the interview without any penalty occurring to you. As well, you may refuse to answer any questions that you find uncomfortable. Finally, all of the information collected in the study will remain strictly confidential and will only be used for research purposes.

If you choose to participate, you will be asked to sign a written consent form when we meet. Do you have any questions? Do you wish to participate?

If YES:

When asking your clients for permission for us to contact them about the study, you may find it helpful to know a few more details. Clients who agree to be part of the research will be asked to participate in two 90 minute interviews at their home on different days. They will be asked some questions about their living situation, the people in their lives, their neighbourhood, and the services they are receiving. Also, we will tour the client's neighbourhood and home. Clients will be paid \$10 for their time at the completion of each interview, for a total of \$20.

It would be really helpful if you could speak to your clients about the study within the next two weeks - that's by **(specify date)** - and call **Mariette Blouin**, the research coordinator, with a list of names and telephone numbers of those who are interested. She can be reached at **562-5800, extension 4454**. Thanks so much for your time!

IF NO, thank the service provider for his or her time...If he or she requests any more information, refer him or her to Tim at 562-5800 (ext. 4815)

Appendix L

Informed Consent Form For Support Providers

An important condition of doing research with human participants is that written consent must be obtained from them. This research condition is mandatory for both the University of Ottawa and research funding agencies in order to guarantee respect for those participating in the study.

I, _____, am interested in participating in a study on the characteristics of effective service providers and how these characteristics relate to the quality of the living situation of clients whom they are serving. The study is being conducted by Tim Aubry, Associate Professor at the University of Ottawa, and his associates. The purpose of today's interview is to gain more information about the program in which I work and the services that I am providing.

If I agree to participate, my participation will involve a 90 minute interview at my work place, in which I will be asked questions about the program I work for, my role within the program, and my work history. I also realize that, as part of my participation, my supervisor will be completing a questionnaire rating my level of competency in a number of skill areas related to my work. If I agree to participate I will also contact clients (with whom I have worked for at least 6 months) to ask them if a researcher may contact them about participating in the study.

I realize that my decision to participate or not will have no effect on the conditions of my employment. I understand that I am free to withdraw from the study at any time during the course of the interview without any penalty occurring to me. As well, I understand that I can refuse to answer any questions that I find uncomfortable. I have also received a guarantee from the researcher that all the information collected in the study will remain strictly confidential and will only be used for research purposes. There are two copies of the consent form, one of which you may keep. If you have any questions about the study, you can call Tim Aubry at 562-5800 Ext. 4815. Thank you for your time.

STAFF MEMBER'S SIGNATURE _____

DATE _____

WITNESSED BY _____

RESEARCHER'S SIGNATURE _____

A summary of the findings of this study will be made available to interested participants in the summer months of 1999. Do you wish to have a copy of the summary sent to you? If yes, record the staff member's address below: