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Inter/intrapersonal variables and readiness for change on achieving recovery

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INTER/INTRAPERSONAL VARIABLES AND READINESS FOR CHANGE ON ACHIEVING RECOVERY

by

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DISSERTATION

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DEDICATION

I would like to dedicate this to my dear sweet sister, Beckie Raupp. She was a truly wonderful person and loved by all who knew her. Her intelligence, humor, creativity, loyalty, wisdom, and friendship are just some of the qualities that made her special and treasured. Not a day goes by that she is not thought of and missed.

I would also like to dedicate this to my Grandma, Shirley Conrad, who was always encouraging and never doubted my abilities. She would be very proud.

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CHAPTER 1

Introduction

Serious mental illness (SMI) was considered a lifelong affliction until the 1980's (Bellack, 2006; Corrigan & Ralph, 2005). Mental health professionals including psychologists and psychiatrists, as well as individuals and families suffering with mental illness, viewed psychiatric diagnoses with impending doom that required the acceptance of the loss of anything remotely resembling a normal productive life (Corrigan & Ralph, 2005). Recently, however, the notion of recovery from a serious mental illness is now being explored as a possible outcome of psychiatric services and mental health programs (Ralph, 2000). The drive to pursue a greater understanding of the potential for recovery from serious mental illness emerged from consumers of mental health and psychiatric services, public health policies, and data from longitudinal studies. Research suggests that recovery occurs among many people suffering with debilitating psychiatric illnesses (Corrigan & Ralph, 2005; Davidson, et al., 2007; Onken, Craig, Ridgway, Ralph, & Cook, 2007). Also, consumers of mental health services have become more vocal and active in the treatment and care they receive, thus inspiring a movement in the delivery of psychiatric services to attend to consumer strengths, natural supports, and decrease social isolation (Davidson, et al., 2007; Drake, 2005; Resnick, Fontana, Lehman, & Rosenheck, 2005).

The era of deinstitutionalization resulted in long-term psychiatric patients receiving treatment in community settings as opposed to being isolated in state hospitals and institutions (Young & Ensing, 1999). As a result, an increase in social inclusion through community based psychiatric rehabilitation services as well as employment programs, ensued (Accordino, Porter, & Morse, 2001). The increase in community involvement, as well as the realization that achieving a quality of life, despite a serious mental illness, is possible, has led to significant public policy changes (Bellack, 2006).

The focus on treatment in the community has led to numerous research studies examining variables that promote successful treatment and supports the notion that those suffering from serious mental illness are able to achieve periods of recovery (Corrigan & Ralph, 2005; Davidson, et al., 2007; Jobe & Harrow, 2005; Ralph, 2000). Davidson and Roe (2007) suggest that recovery *from* mental illness is an outcome reserved for those individuals that achieve complete remission of symptoms and return to their previous level of functioning much like an individual recovers from a broken leg or an infection. Initial longitudinal studies examined the course of individuals with schizophrenia, the psychiatric diagnosis with the worst prognosis (Jobe & Harrow, 2005). Successful outcomes were based on the absence of symptoms and return to pre-morbid functioning. The percentage of individuals that achieve recovery *from* mental illness varies by source but is roughly 10%-25% (Davidson & Roe, 2007; Lyksaker, Roe, & Buck, 2010; San, Ciudad, Alvarez, Bobes, & Gilaberte, 2007). For example, in one longitudinal study after ten years, 24% of those diagnosed with schizophrenia were symptom free and had not experienced any relapses (Jobe & Harrow, 2005). Forty-six percent had improved but still had residual symptoms and had experienced relapses and remissions (Jobe & Harrow, 2005). Finally, thirty percent of those diagnosed with schizophrenia had not improved at all and were still hospitalized (Jobe & Harrow, 2005). The variance in outcomes of this and other longitudinal studies was crucial in establishing a social discourse on the phenomena of ‘recovery’, which was a significant departure from the medical notion of cure.

Conceptualizations of Recovery

Empirical evidence uses many different definitions and criteria to measure recovery. This leads to controversy as to what recovery really is and if it really does occur. However, the interest in exploring recovery is continuing to grow and create policy changes on a global scale. Australia, Canada, England, and Israel have all recently implemented policies and practices within their respective health systems that focus directly on the recovery concept (Ramon, Shera, Healy, Lachman, & Renouf, 2009). In fact The President's New Freedom Commission on Mental Health (2003) foresees a future when "everyone with mental illness will recover" (p. 1). It would seem then that further empirical exploration of this concept is compulsory.

The numerous conceptualizations of recovery include defining recovery as a process, as an outcome, as objective, and as subjective (Bellack, 2006; Davidson, et al., 2007; Silverstein & Bellack, 2008). The various definitions arise from differing viewpoints, that of the consumer with SMI or that of the mental health professional working with individuals with SMI. Professionals, family members and other providers often characterize recovery as an outcome and focus on level of functioning (Miller, Brown, Pilon, Scheffler, & Davis, 2010). The viewpoint of the individual with SMI is different from "person to person to the extent that what is meaningful, what constitutes full potential, and what type of community a person lives in" (Miller, et al., 2010. p. 178). Unsatisfied with the medical model's definition not fully capturing the experiences of many consumers, recovery became defined as a process that is occurring even in the presence of symptoms or other poor prognostic indicators (Anthony, 1993). Recovery has been defined as "a process of restoring a meaningful sense of belonging to one's community and positive sense of identity apart from one's condition while rebuilding a life despite or within the limitations imposed by that condition" (Davidson, et al., p. 25, 2007).

The office of Substance Abuse and Mental Health Services Administration (SAMHSA) (Lysaker, et al., 2010) provides one of the most frequently used definitions of recovery for the development of public policy and community treatment. The National Consensus Statement on Mental Health Recovery was developed by more than 110 expert panelists made up of mental health consumers, family members, providers, advocates, researchers, academicians, accreditation organizations, etc. (http://store.samhsa.gov/product/SMA05-4129). This was the first time a federal agency recognized the concept of recovery, devised a definition, and identified factors to help individuals move toward achieving it. A majority of the components fundamental to recovery identify the individual's perception and role in the recovery process as well as the importance of social support networks and support from other consumers. Accordingly, the emphasis for treatment is placed on a "strengths-based", "person-centered", "holistic", "peer support" approach, with the consumer of the services taking "responsibility"; "self-direction"; and being "empowered" (http://store.samhsa.gov/product/SMA05-4129). Recovery is seen as "non-linear", a process that sees growth as well as regression with opportunities to learn from experiences (http://store.samhsa.gov/product/SMA05-4129). This is in great contrast with the more conventional psychiatric treatment approaches which focuses more on symptom management through pharmacological interventions and medication management.

Conceptualizations of recovery for this study

It is contended that recovery, for the purpose of this study, is defined as a subjective experience reflecting, (a) a sense of responsibility for the illness, (b) identifying a sense of hope and meaningfulness in life, and (c) developing a sense of identity (Noordsy, et al., 2002). From this perspective, recovery is understood as adjusting to the new reality imposed by a serious mental illness and resuming life. Davidson and Roe (2007) suggest that recovery *in* serious mental illness is similar to the concept of being *in recovery* from addiction in which one works on gaining control of one's life, making necessary changes, and learning to live with the addiction/illness. Therefore *in* recovery refers to "the process of living one's life, pursuing one's personal hopes and aspirations, with dignity and autonomy, in the face of the on-going presence of an illness and /or vulnerability to relapse" (Davidson & Roe, 2007, p. 464).

It is also purported that the recovery process from serious mental illness can be understood within the Belongingness Hypothesis (Baumeister & Leary, 1995). Within this framework, recovery occurs as a result of the development of social bonds and a sense of belonging which satisfies a basic human motivation. Individuals with SMI are at risk for being ostracized, which jeopardizes the ability to develop social bonds. Recovery occurs from the support of social environments that promote interpersonal relationships through the concept of mattering. It is purported that achieving a sense of mattering within interpersonal relationships has a positive relationship to readiness to change, which acts as a catalyst in moving individuals with SMI through the recovery process. In addition, social contexts that promote mattering are simultaneously inversely related to stigma.

Social Process Variables of Recovery

As the recovery-oriented paradigms increase over the next decade, examining specific components related to the recovery process is warranted. For example, according to the National Consensus Statement on Mental Health Recovery, peer supports or mutual support among consumers living with a serious mental illness "plays an invaluable role in recovery" as well as, providing individuals with mental illness a "sense of belonging, supportive relationships, valued roles and community" (http://store.samhsa.gov/product/SMA05-4129). These components are emphasized as being pivotal to recovery; however, little is known about how these components specifically relate to programs attempting to advance recovery, such as psychosocial clubhouse programs, that offer inclusion as part of the program's milieu. It is contended that recovery, for the purposes of this investigation, is based on the Corrigan and Phelan (2004) concept of recovery as a psychological construct. From their perspective, recovery is construed as a psychological construct that can be measured via self-report measures that assess a change in attitude, illness management, and insight. Further, it is purported that recovery is intricately tied to other psychosocial factors that either inhibit or promote greater psychological recovery. The following sections will briefly outline the proposed interpersonal/intrapersonal predictors that facilitate the recovery process, namely social support, sense of mattering, sense of community, stigma, and readiness for change.

*Social support***.** The impact of peer and family support has been found to influence positive outcomes in mental illness. Individuals with serious mental illness who report more satisfaction with their social networks or a large social support group identified important aspects of recovery such as having more hope and a greater orientation towards goals and success (Corrigan & Phelan, 2004). Social support is pivotal in the recovery process in that it, (a) provides a method to obtain supportive resources, (b) an opportunity to develop reciprocal relationships, and (c) a sense of identity and connection with others, as opposed to being isolated and alone.

Sense of mattering. The concept of a sense of mattering is theorized to influence recovery. Since the 1980's the concept of "mattering" has received attention (Elliot, Kao, & Grant, 2004). Mattering is defined as "the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension” (Rosenburg & McCullough, 1981, p.165). The need to belong has been described as a basic human motivation (Baumeister & Leary, 1995). A sense of mattering has been found to promote and elevate one’s “self concept and self-significance and higher levels of wellness, psychosocial well being, social support, and job satisfaction” (Rayle, 2006, p.485). Individuals with SMI are at risk for being shunned and rejected due to social and cognitive deficits (Hersen & Turner, 2003) which often lead to isolation. A sense of mattering is believed to be crucial in promoting the recovery process by providing a sense of importance and purpose through the experience of (a) being attended to, (b) concerned about, and (c) regarded as significant.

Sense of community. It has been suggested that the development of a sense of community is particularly important among individuals with SMI (Herman, Onaga, Pernice-Duca, Oh, & Ferguson, 2005; Townley & Kloos, 2009). The psychological sense of community is the “sense of belongingness, fellowship, “we-ness”, identity, etc., experienced in the context of a functional (group) or geographical based collective” (Buckner, 1988, p. 773). A sense of community may provide an opportunity for belongingness and connectedness as well as buffer against the ill effects of stigma (Townley & Kloos, 2009). Sense of community is the interpersonal factor that provides the means to develop the intrapersonal factors of feeling connected, important, and mattered about. Individuals with SMI are often ostracized and excluded from community inclusion due to “negative community attitudes” (Accordino, et al., 2001, p. 18), and thus are at risk for not developing a sense of community. Individuals that are able to develop a sense of community are more likely to feel connected and develop a sense of belonging which fosters recovery by providing peer support and reciprocal relationships.

*Stigma***.** One obstacle in implementing a recovery philosophy is the preconceived notion that recovery from mental illness is unlikely. This belief exists not only in the general public but from mental health professionals as well. Research has shown that individuals diagnosed with mental illness are discriminated against and/or subject to being socially stigmatized by family members, mental health workers, employers, and landlords (Perlick, et al., 2001). Often the stigma associated with mental illness results in many individuals denying their illness and not obtaining the effective treatment they need for recovery (Lieberman, Kopelowicz, Ventura, & Gutkind, 2002). In addition, stigma has a negative impact on self-esteem, life satisfaction, and severity of symptoms (Markowitz, 2001). It is posited that stigma associated with mental illness is the main cause for negative interactions, social rejection, inferior self concept, and inadequate social support. It is contended that the role of stigma is likely to be a barrier to the recovery process but one that may be removed through the development of sense of community, social support, and sense of mattering.

*Stage of change***.** It is suggested that change is an integral part of recovery. Onken, et al. (2007) suggests an ecological framework that conceptualizes recovery as involving dynamic interaction between the individual and the environment. A necessary component includes change within the individual, such as alleviation of symptoms, and change at the community level, such as social integration. Preliminary research has examined stages of change and the effectiveness of outcome interventions. It is posited that readiness for change will result in more successful rehabilitation outcomes (Chou, Chan, & Tsang, 2004; Hillburger & Lam, 1999; Rogers, et al., 2001). Thus a more advanced stage of change will correlate with a more advanced sense of recovery.

Psychosocial Rehabilitation Programs and Recovery

In the United States, the President's New Freedom Commission on Mental Health (2003) identifies and defines recovery, as well as lists interventions and practices to be implemented to ensure and promote recovery. Many of these interventions include community based treatment programs such as psychosocial rehabilitation programs, also referred to as clubhouses. These programs are purported to promote recovery through the implementation of a social/peer support concept, via development of a social support and resource milieu. Unfortunately minimal empirical evidence exists as to the effectiveness of such programs and to the social support approach in promoting recovery. Understanding how specific predictor variables are related to recovery is growing increasingly important as more professional disciplines begin to adopt the concept. For example, SAMHSA recently awarded several major professional organizations (e.g. American Psychological Association, American Psychiatric Association, Council on Social Work Education) grants to incorporate recovery oriented education into their training (www.samsha.gov).

The power and influence social support provides to overall mental well being is not surprising given that humans are a social species meant to live in groups and not in isolation (Weisfeld, 1999). Thus it is apropos that in 1948 a group of patients that had recently been discharged from a state psychiatric facility banded together to form a support group known as "We are not alone" or WANA. In the 1950's with the assistance of more volunteers, the group became known as the Fountain House which became the template for the development of Clubhouses (http://www.iccd.org/history.html). Clubhouses are organizations that provide support and assistance to those with serious mental illness. The clubhouse program provides a safe, accepting, and supportive environment in which members are able to contribute to the maintenance and management of the clubhouse (Mowbray, Lewandowski, Holter, & Bybee, 2006). Clubhouses provide an opportunity to identify and understand the impact that social support and the development of sense of community have on recovery (Herman et al., 2005).

To date the psychosocial clubhouse programs have not been certified by SAMHSA as an evidenced based practice, although in Michigan, they are funded in part by Medicaid. However, several principles of the consensus statement on mental health recovery are inherently a part of the clubhouse programming. Thus clubhouses appear a logical choice to empirically examine whether or not the interpersonal factor of sense of community exists within the clubhouse and if intrapersonal predictors such as social support, sense of mattering, and stage of change influence recovery. The effectiveness of the clubhouse as a psychosocial rehabilitation program will be examined to determine if participation and attendance at the clubhouse influence interpersonal/intrapersonal predictors and recovery.

Theoretical Framework

The process of recovery and the factors that influence it are conceptualized within the theoretical framework of the Belongingness Hypothesis (Baumeister & Leary, 1995). It is theorized that the need to belong is a basic human motivation with an evolutionary basis (Baumeister & Leary, 1995). The ability to develop and maintain social bonds has benefits from both a survival and reproductive standpoint (Weisfeld, 1999). For example, group living aids in sharing food, resources and caring for offspring (Weisfeld, 1999). Group living also offers protection from threatening sources (Baumeister & Leary, 1995; Weisfeld, 1999). Gregariousness, "or sociality, tends to occur in species that are vulnerable to predators" (Weisfeld, 1999, p. 35), thus developing interpersonal bonds and attachments promotes successful group living. It is suggested that if belongingness is a need, “then people who lack belongingness should exhibit pathological consequences beyond mere temporary distress” (Baumeister & Leary, 1995, p. 498). Research supports the notion that the need to belong is a human motivation as evidenced by the numerous ill effects suffered by those that do not experience belonging. For example, rejection and loneliness have both been found to produce physical and emotional distress (Baumeister & Leary, 1995). Social contact offers physiological and behavioral benefits such as reducing stress hormones (Weisfeld, 1999). Also, “lonely people tend to have poor immune system activity” (Weisfeld, 1999, p. 35) thus are more susceptible to disease. In addition, people who “lack belongingness suffer higher levels of mental and physical illness and are relatively highly prone to a broad range of behavioral problems, ranging from traffic accidents to criminality to suicide” (Baumeister & Leary, 1995, p. 511). Further support for the need to belong is found in the evidence that humans are able to detect social rejection and implement measures to correct it and that “social pain (elicited by ostracism) results in similar brain activity to that produced by physical pain” (Watt & Badger, 2009, p. 517). It is hypothesized that in order for individuals with SMI to successfully achieve a sense of recovery the need to belong must be met. Individuals with SMI are often ostracized and victimized because of negative attitudes towards psychiatric illness. In addition, many of the cognitive and behavioral deficits exhibited by individuals with SMI puts them at risk for exclusion and ridicule. Therefore this group is at risk of being rejected and isolated, thus inhibiting the development of the basic human motivation to belong (Baumeister & Leary, 1995). It is suggested that individuals with SMI that experience a sense of mattering develop an important human connection. This human connection facilitates the development of identity and meaning and buffers against the negative effects of stigma associated with psychiatric illness.

Summary of Recovery Framework

Living with a serious mental illness requires making adjustments. Pre-morbid aspirations and dreams may need to be altered; however, a meaningful and productive life is still obtainable. It is contended that intrapersonal and interpersonal variables influence this process. Recovery is conceptualized as a process of accepting and making adjustments for living with a psychiatric disorder while also achieving a sense of hope, identity, and meaningfulness. Achieving a sense of community creates an arena to identify with and a group to belong to, while social support provides resources and opportunities for reciprocal relationships. Individuals who have a sense of mattering are able to meet a basic human motivation, to belong and to matter. It is suggested that these experiences provide the support and resources necessary to achieve a sense of identity and meaningfulness while also buffering against the ill effects of stigma, which frequently leads to victimization and ostracism. Stage of change is seen as the process an individual with SMI moves through in order to make the necessary adjustments and changes required to live a meaningful and purposeful life with a psychiatric illness.

Proposed Research Study

For the purposes of this research study, recovery is conceptualized as a psychological construct (Corrigan & Phelan, 2004) which operates as a nonlinear process, such that there are gains and losses but overall a sense of identity, hope, and meaningfulness is achieved. This also includes the ability to recognize and manage psychiatric symptoms as well as maintaining a degree of functional independence. Recovery means individuals with SMI are able to live and function outside of an institutionalized setting with minimal support from community based intensive treatment programs. Recovery also includes the ability to participate in community activities and develop and maintain reciprocal relationships. This requires an individual with SMI to accept the need to make necessary changes required to live with a serious mental illness. The author's conceptualization of recovery is in keeping with the nationally recognized guiding principles of recovery as outlined by SAMHSA which include;

- Recovery is self-directed and empowering.
- Recovery involves a personal recognition of the need for change and transformation.
- Recovery exists on a continuum of improved health and wellness.
- Recovery is supported by peers and allies.
- Recovery emerges from hope and gratitude.
- Recovery involves a process of healing and self-redefinition.
- Recovery involves addressing discrimination and transcending shame and stigma.
- Recovery involves (re)joining and (re)building a life in the community.
- Recovery is a reality. It can, will, and does happen. (Sheedy & Whitter, 2009).

The author is theorizing that in order for this to occur, individuals need to have a basic motivation met: the sense of belonging. The development of social bonds as well as the development of intrapersonal sense of mattering, importance, and acceptance provides the necessary impetus those individuals with SMI need to move through the recovery process.

Several instruments will be utilized to assess these principles of recovery. The instruments will be discussed in greater detail in Chapter 3; however, they will be defined briefly here along with the rationale for their use. The Recovery Assessment Scale (RAS; Corrigan, Giffort, Rashid, Leary, & Okeke, 1999) was chosen to assess the subjective sense of recovery that taps into individuals with SMI sense of hope, meaningfulness, and management of symptoms. The RAS was developed through narrative analysis of personal accounts of recovery from individuals with SMI. Aspects of recovery, including participating in community activities and developing and maintaining relationships, will be assessed using the Sense of Community Scale (Buckner, 1988; Herman, et al., 2005) and the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) as well as clubhouse participation.

The Sense of Community Scale measures the sense of belonging and being a part of a group or intentional community while the MSPSS examines the perceived social support from family, friends and a significant other. These instruments have been chosen to determine the degree that recovery is supported by relationships with peers and family as well as the degree that reintegration and involvement in the community impacts recovery. The Sense of Mattering scale (Elliot et al., 2004) assesses the area of interpersonal mattering that one experiences. Sense of mattering includes feeling acknowledged and important, and the sense of belonging and participating in a reciprocal relationship. It is hypothesized by the author that this sense of mattering must exist in order to move the individual with SMI through the recovery process. Overcoming stigma is another dimension of recovery and will be assessed using the Stigma Scale (King, et al., 2007). This scale assesses areas of stigma including discrimination, fear of disclosure, and positive aspects of mental illness. Demographic information will be gathered to determine level of independence, including work and housing status, last hospitalization, and sources of financial support. Clubhouse participation information will be collected to determine length of time attending the clubhouse, number of times per week and length of each stay. This information will be used to determine degree of independence and functioning as well as the impact clubhouse participation has on recovery, sense of community, sense of mattering, and perceived stigma. Finally the recognition of the need for change will be measured using the Stages of Change Questionnaire (McConnaughy, Prochaska, & Velicer, 1983). This scale identifies the stage of change one is in. Stage of change is theorized to impact subjective sense of recovery.

Research Problem

Additional research is needed to gain a better understanding of recovery; if it occurs and the factors that influence it. Approximately 50% of individuals with mental illness achieve periods of remission from symptoms, are able to function in society, and develop and maintain relationships (Davidson & Roe, 2007; Lysaker et al., 2010). What differentiates those who recover from those that do not is still being explored. The aim of the proposed study is to determine if individuals with SMI achieve a subjective sense of recovery and what intrapersonal and interpersonal predictors influence the process. It is theorized that inter/intrapersonal factors play an important role in promoting recovery (Caron, Tempier, Mercier, & Leouffre, 1998; Roberts, et al., 1999; Rosenfield & Wenzel, 1997; Salem, Seidman, & Rappaport 1988; Yanos, Primavera, & Knight, 2001). Previous research has identified the importance of perceived social support and sense of community for individuals with SMI in recovery (Corrigan & Phelan, 2004; Herman, et al., 2005; Pernice-Duca & Onaga, 2009). It is theorized that sense of mattering is a construct that is important for recovery to occur but has not yet been explored (Baumeister & Leary, 1995). The presence of perceived stigma is negatively correlated with overall well-being (Crespo, Perez-Santos, Munoz, & Guillen, 2008; King, et al., 2007). Thus it is theorized that interpersonal/intrapersonal predictors, e.g. sense of community, sense of belonging, social support and perceived stigma, will influence the occurrence of recovery. Research has also identified the importance readiness for change has on being able to accept and manage one’s illness (Chou, et al., 2004; Diclement, Nidecker, & Bellacj, 2008). Thus it is hypothesized that individuals with SMI in a later stage of change will identify a greater sense of being in recovery.

The author’s definition of recovery is characterized as the reduction or management of symptoms to the point they no longer interfere with daily functioning, absence of hospitalization for 2 years, acceptance of the illness as indicated by taking responsibility for the illness, creating a positive identity, and feeling a sense of hope and meaning in life (Liberman et al., 2002; Noordsy et al., 2002). Specifically, data will be collected to determine how many individuals with SMI identify themselves as being in a process of recovery. The most pervasive procedure to assess recovery is through the use of self report measures (Anderson, Oades, & Caputi, 2003; Corrigan, et al., 1999; Herman, et al., 2005; Klinkenberg, Cho, & Vieweg, 1998; Lysaker et al., 2010).

As noted previously, the preferred and most common form of treatment since the deinstitutionalization movement is community treatment. However, the effectiveness of community treatment has met with mixed results (Accordino, et al., 2001). Research on Clubhouses has demonstrated effectiveness in promoting a sense of empowerment, employment, and social network (Mowbray, et al., 2006; Pernice-Duca, 2008; Shonebaum, Boyd, & Dudek, 2006). Contextual variables associated with clubhouse attendance and participation will be examined to determine if they relate to recovery in addition to inter/intrapersonal factors.

Research Questions

The following overarching research questions are proposed. Each question will be followed by specific hypotheses in Chapter 2:

1. Do individuals meeting the federal definition of serious mental illness and attending psychosocial clubhouses report subjective experiences of recovery? What, if any, are the rates of subjective recovery across diagnostic classifications (e.g. Mood Disorder vs. Psychotic Disorders)?
2. Which interpersonal/intrapersonal factors predict a subjective process of recovery?

3. What is the relationship between the level of clubhouse engagement measured by weekly attendance and participation, inter/intrapersonal factors (e.g. social support, sense of mattering, sense of community, perceived stigma), subjective recovery, and readiness for change?
4. Is readiness for change predictive of subjective experiences of recovery?
5. Are level of clubhouse engagement and inter/intrapersonal factors predictive of perceived stigma?
6. Does sense of belonging form the foundation from which the concepts of recovery emerge?

Definition of Variables

*Recovery***.** Recovery is defined as a subjective experience in which an individual with SMI is able to accept and take responsibility for the illness, manage symptoms to the point they no longer interfere with daily functioning, create a positive identity, and feeling of hope and meaning in life. Recovery is seen as a process in which acceptance, management, hope, and identity occur in stages, from unaware and resistant to awareness and willingness, to make necessary changes and adjustments to live successfully with a psychiatric illness.

Functional indicators of recovery. Functional indicators of recovery include reduction or management of symptoms to the point that they are no longer interfering with daily functioning, absence of hospitalization for two years, and ability to perform skills necessary for independent living.

Inter/Intrapersonal factors. The inter/intrapersonal factors are defined as a composite of variables assessing experiences and interactions that engender support, a sense of belonging, and the impact of stigma on the individual with serious mental illness. These inter/intrapersonal factors hypothesized to be related to the recovery process include: perceived social support, sense of community, sense of mattering, and perceived stigma of living with a mental illness. It is hypothesized that these inter/intrapersonal factors are predictive of the recovery process as understood from the Belongingness Hypothesis (Baumeister & Leary, 1995). Individuals that report greater inter/intrapersonal support, belongingness, and mattering are more likely to develop a sense of acceptance, empowerment, hope, and meaningfulness through the development of identifying with others and feeling connected. If one is accepted by others, along with one's shortcomings, one is more likely to accept oneself also. In addition, the necessary resources required to make changes and adjustments are available. Those who do not experience inter/intrapersonal support, belongingness, and mattering are more likely to feel rejected and unaccepted and therefore are more likely to resist accepting their illness. In addition they lack the necessary resources required to make life adjustments.

*Level of clubhouse engagement***.** Level of clubhouse engagement is defined by two measures assessing the extent to which consumers attend the psychosocial clubhouse and the number of hours they spend at the clubhouse. This will be a composite variable comprising of average daily attendance multiplied by the average number of hours per day. This will provide a measure of level of social engagement in the environment.

Readiness for change. Readiness for change is defined as the extent to which an individual is aware of the need to make changes and the extent to which the changes have occurred. Individuals in an early stage of change often do not yet accept and/or are unable to commit themselves to making adjustments necessary to accommodate their needs. Individuals in the later stage of change have made the adjustments or are in the process of making the necessary changes.

*Perceived stigma***.** Perceived stigma is defined as the extent to which one experiences prejudicial attitudes, rejection, and discrimination as they pertain to living with a diagnosable mental health disorder. Individuals with SMI that experience perceived stigma are believed to be more likely to reject their illness and perceive themselves as unwanted or unimportant which, ultimately will interfere with developing a sense of identity, social connection, and acceptance of their illness.

Summary

In conclusion, the proposed research study has been developed to gain a better understanding of what recovery is and what it looks like. The overarching question is: does recovery occur as a process that is influenced by interpersonal relationships and an intrapersonal sense of belonging through the attendance and participation in clubhouses? Further, are individuals that are ready for change more likely to experience recovery? Individuals with SMI that attend psychosocial rehabilitation programs, such as a clubhouse, will be asked to identify their perceptions and experiences of living with SMI and how it impacts their relationships and feelings of hope and meaning in life. It will be determined if those individuals do in fact achieve a sense of recovery as defined by the author and if the subjective sense of recovery correlates with objective measures of recovery. In addition, the proposed intra/interpersonal factors that have been theorized as influencing a subjective sense of recovery will be examined to determine if relationships do exist. The role of the clubhouse will be examined to determine if attendance and participation impacts a sense of recovery and an overall sense of belonging through the development of desirable inter/intrapersonal factors. Also attendance and participation in the clubhouse and intra/interpersonal factors will be examined to determine if they have an impact on diminishing a sense of stigma. Finally the stage of change, i.e. the willingness to accept the need to make a change, will be assessed to determine if later stages of change are more indicative of a sense of recovery.

Assumptions

It is assumed that individuals that attend clubhouses will vary in their subjective experience of recovery and that variation will exist in degree of social support. It is also assumed, based on previous research with consumers living with a serious mental illness, that interview-based protocols conducted by a researcher are an acceptable method of collecting subjective experiences. In addition, it is assumed that one’s perceptions of one’s recovery experiences serves as a valid approach to understanding this phenomenon (Crane-Ross, Lutz, & Roth, 2006; Crane-Ross, Roth, & Lauber, 2000). For example, most clinical and diagnostic assessments are interview-based (Hersen & Turner, 2003) and serve to assess level of functioning and diagnosis. However, these assumptions which come with a number of significant limitations will be discussed below.

Limitations

A number of limitations are inherent in the current study. First, a correlational design utilizing predictor and criterion variables lacks internal validity. Second, participants are not randomly selected to participate in the current study, thus also affecting internal validity. However, cluster sampling is used to identify clubhouse programs of a particular target area. Third, information will be gathered using self-reports which often differ from objective forms of data collecting (Crane-Ross, et al., 2006). Self-report measures, such as interviews, have been identified as possible threats to external validity because of the cognitive deficits individuals with SMI have and of the possibility of minimizing symptoms in reporting. However, numerous studies have found consumer perspectives to be similar to clinician perspectives (Crane-Ross, et al., 2000; Crane-Ross, et al., 2006; Salyers, Godfrey, Mueser, & Labriola, 2007). This limitation will be discussed further in Chapter 3. Finally, construct validity is threatened due to the broad concept of recovery, numerous definitions, and subjective forms of measurement.

CHAPTER 2

Serious Mental Illness Diagnoses

Individuals with severe mental illness include those diagnosed with Schizophrenia and Mood Disorders. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR, 2000), Schizophrenia is characterized by positive symptoms, such as distortions in thought, perceptions, language and thought process, and self-monitoring of behaviors, and negative symptoms, such as decrease in range and intensity of emotional expression, poverty of speech, and anhednoia (DSM-IV-TR, 2000, p. 299). Onset typically occurs in the mid to late twenties, usually the latter for women (DSM-IV-TR). Onset at this time typically interferes with development of interpersonal relationships, advanced education, and self identity (Hersen & Turner, 2003). Individuals with Schizophrenia often have poor insight into the disorder, their cognitive deficits, and their level of social and occupational dysfunction (DSM-IV-TR, 2000). Schizophrenia typically follows a variable course. Onset can be gradual or acute, and many will exhibit impairment in social functioning prior to onset (Hersen & Turner, 2003). Some will experience a “relatively stable course, whereas others show a progressive worsening associated with severe disability” (DSM-IV-TR, p. 309). In addition, “complete remission (i.e., a return to premorbid functioning) is probably not common in this disorder” (DSM-IV-TR, p.309). In order to diagnose Schizophrenia, the patient must be interviewed, preferably by a structured clinical interview, in order to apply the diagnostic criteria (Hersen & Turner, 2003).

Mood disorders include Major Depression, Bipolar I Disorder, and Bipolar II Disorder. Individuals diagnosed with Major Depression experience depressed mood, anhedonia, changes in appetite and sleep patterns, and psychomotor and cognitive slowing, and often have difficulty functioning in social and occupational areas (DSM-IV-TR, 2000). Depression is often debilitating and manifests itself by physical symptoms as well, such as fatigue, aches and pain, and gastrointestinal upset (Hersen & Turner, 2003). Those with an early onset, before age 20, often have a more chronic course compared to those with late onset after age 30 (Hersen & Turner, 2003). Individuals that experience their first Major Depressive disorder have a 60% chance of experiencing a subsequent episode (DSM-IV-TR). The percentage of additional episodes increases with each subsequent episode (DSM-IV-TR). The "most common mechanism for diagnosing depression is a *self-report measure"* (Hersen & Turner, 2003, p.299). The "instruments are completed by the patient" (Hersen & Turner, p. 300) and then scored. A structured clinical interview may also be used in order to obtain further data from the patient.

Individuals with Bipolar Disorder experience a Manic or Hypomanic episode in addition to a depressed episode. Manic or hypomanic episodes include an "abnormally and persistently elevated, expansive, or irritable mood"(DSM-IV-TR, 2000, p. 386) along with feelings of grandiosity, decrease need for sleep, pressured speech, flight of ideas, poor judgment, and at times psychosis (DSM-IV-TR, 2000). The typical age of occurrence for Bipolar Disorders is around age 20 for men and women (DSM-IV-TR, 2000). Individuals that have a manic episode are 90% likely to have future episodes, in addition, "as many as 60% experience chronic interpersonal or occupational difficulties between acute episodes" (DSM-IV-TR, 2000, p. 386). Bipolar Disorders frequently interfere with the ability to maintain a job, often disrupt family and interpersonal relationships and the rate of co-occurring alcohol and substance abuse disorders is significantly higher compared to the general population (Hersen & Turner, 2003). Diagnosis of Bipolar Disorders is mostly determined by clinical assessment of current and past history of symptomolgy, level of function, etc (Hersen & Turner, 2003).

In a study comparing the cognitive and social functioning of individuals with Schizophrenia to those with Bipolar I Disorder, some similarities were noted, concluding that "neurocognitive and social functioning deficits are not diagnosis specific" (Dickerson, Sommerville, Origoni, Ringel, & Parente, 2001, p.25). In such areas as immediate memory, social acceptability, social effectiveness, and medication compliance, those with bipolar disorder showed less impairment than those with schizophrenia. However, those with bipolar were less satisfied with their finances than those with schizophrenia. In areas of social functioning such as, competence and frequency of activities of daily living, participation in social activities, and frequency of family contact and social relations, those "with bipolar disorder were not significantly different from those in the schizophrenia group" (Dickerson, et al., 2001, p. 25). These findings suggest that individuals with Bipolar I Disorder experience many of the same social and cognitive deficits as those with schizophrenia and would benefit from the same community and rehabilitation services as those with schizophrenia (Dickerson, et al., 2001).

Prevalence of Serious Mental Illness

The prevalence and seriousness of mental illness cannot be ignored. According to the National Institute of Mental Health (NIMH), mental health disorders occur in approximately 26.2 percent of Americans over the age of 18, or roughly 57.7 million people in the United States alone (http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml#Intro). Many people are diagnosed with more than one disorder at a time, and those suffering from serious mental illness make up an estimated 6 percent of the population of the United States (Kessler, et al., 2005). Mental illness has been identified as the leading cause of disability in the United States, Canada, and Western Europe (President's New Freedom Commission on Mental Health, 2003). Individuals with serious mental illness must meet criteria defined through diagnosis, extent of disability, and duration of illness. SMI includes disorders with psychotic symptoms such as schizophrenia, schizoaffective disorder, and bipolar disorder as well as any disorder that results in impaired functioning for thirty days or more in a year, such as severe forms of bipolar disorder, panic disorder, and obsessive compulsive disorder (http://www.nimh.nih.gov/health/topics/statistics/ncsr-study/questions-and-answers-about-the-national-comorbidity-survey-replication-ncsr-study.shtml#q8). Attempts have been made to more clearly define and operationalize SMI in consistent terms but federal definitions continue to rely on the extent to which psychiatric disorders are disabling by affecting psychosocial functioning(Ruggeri, et al., 2000).

It is estimated that 6% of Americans, or approximately 1 in 17 people, meet criteria for SMI (http://www.nimh.nih.gov/health/topics/statistics/index.shtml). Although advances have been made in the effectiveness of treatment, many individuals with SMI are unable to obtain the services needed. It is reported that it takes an average of 8.5 years after the onset of schizophrenia for someone to get treatment and this delay results in more severe symptoms and illness that are more likely to be resistant to treatment (http://www.nami.org/Content/NavigationMenu/State_Advocacy/About_the_Issue/HealthCare.pdf). Untreated mental illness also results in numerous emergency room visits. It is estimated that over 4 million emergency room visits per year are due to mental health disorders (http://www.nami.org/Content/NavigationMenu/State_Advocacy/About_the_Issue/HealthCare.pdf). Conservative estimates of the direct and indirect cost of SMI in the United States exceed $69 billion a year (http://www.surgeongeneral.gov/library/mentalhealth/chapter2/sec2_1.html). A large portion of this cost is a result of the substantial group of individuals with SMI not receiving treatment. In addition to the monetary cost, is the emotional cost suffered not only by the severely mentally ill but by their families as well. For example, suicide often occurs because of lack of effective treatment (President’s New Freedom Commission on Mental Health, 2003). Suicide has been identified as being responsible for more deaths every year than homicides or war (President’s New Freedom Commission on Mental Health, 2003). It is estimated that 1 person dies of suicide approximately every 16 minutes in this country alone (http://www.nami.org/Content/NavigationMenu/State_Advocacy/About_the_Issue/HealthCare.pdf). Of the people that commit suicide, a large majority suffer from an untreated mental illness (http://www.nami.org/Content/NavigationMenu/State_Advocacy/About_the_Issue/HealthCare.pdf).

Treatment and outcomes for SMI have changed over the last several decades with the closure of state mental hospitals, advent of more effective psychotropics, and a focus on the treatment of individuals with SMI in community settings. Research on the long term outcomes of SMI began with deinstitutionalization and challenges the pervasive Kraepelin view that individuals with schizophrenia will “inevitably experience a progressive downhill course, eventually ending up demented and incompetent” (Corrigan et al., 1999). Prior to World War II individuals with SMI were placed in state institutions in order to “stave off further decline” (Lysaker, et al., 2010, p. 36). The passage of several governmental acts (Barden-Lafollette Act 1943; National Mental Health Act 1946; Vocational Rehabilitation Act 1948) required federal and state governments to provide rehabilitative and vocational services to individuals with SMI in outpatient treatment centers (Accordino, et al., 2001). The increase in the number of outpatient treatment centers and the development of psychotropics decreased the number of inpatients at state mental hospitals (Accordino, et al., 2001). During the late 1950’s numerous studies were conducted by the National Institute of Mental Health (NIMH) and the Joint

Commission on Mental Illness and Health that ultimately led to recommendations to increase the understanding of treatment, improve training of professionals and enhance treatment services for individuals with SMI (Accordino, et al., 2001). The 1960's saw further support of deinstitutionalization as well as protecting the civil rights of individuals with SMI due to the "belief that SMI could be prevented as well as treated" (Accordino, et al., 2001, p.17). The Community Mental Health Act (1963) was passed to ensure treatment in "least restrictive environments" (Accordino, et al., 2001, p. 17). It was surmised that individuals treated in their own community and accessible to their social support network would respond better to treatment.

Research on long-term treatment outcomes is fraught with mixed results. Findings of the effectiveness of community treatment suggest it is "not as effective as desired" (Accordino, et al., 2001, p. 18). Individuals with SMI that are treated in the community have high rates of recidivism, incarceration, and homelessness (Accordino, et al., 2001). In addition the jobless rate of individuals with SMI is estimated to be between 80% and 90% nationally (Accordino, et al., 2001). Longitudinal studies from the mid 1970's examined individuals with psychosis and found a broad range of outcomes including a percentage achieving recovery (Davidson, et al., 2005). The percentage achieving recovery, "between 25%-65%" (Davidson & Roe, 2007, p. 461) has been in dispute since different criteria were used in defining recovery (Davidson, et al., 2005). In the "rigorous, longitudinal, clinical outcome studies, recovery was defined as having no symptoms or other residual impairments associated with psychosis and being able to function independently" (Davidson, et al., 2005, p.180).

The heterogeneity of outcomes along with the consumer movement has led to a paradigm shift in conceptualizing recovery from SMI. The recovery movement has been described as "first and foremost a civil rights movement" (Davidson & Roe, 2007, p. 465). Individuals with

SMI have become more vocal and active about the treatment and care they receive (Resnick et al., 2004). Deinstitutionalization has led to more integration into society as opposed to being isolated in state hospitals and institutions (Young & Ensing, 1999). However, while recovery is suggested as possible, it is an evolving concept with theoretical and empirical ambiguity.

Objective and Subjective Definitions of Recovery

The notion of recovery has taken time to grow but is at the point of influencing mental health care practices and policies on a global scale to implement a recovery based orientation (Bellack, 2006; Davidson et al., 2007; O'Connell, Tondora, Croog, Evans, & Davidson, 2005; Sowers, 2005). For example, The President's New Freedom Commission on Mental Health (2003) outlines the process and expectations to ensure that everyone dealing with mental illness recover. In addition, the state of Connecticut implemented a recovery initiative in 2000 (Davidson et al., 2007). It is unique in that it began before the President's New Freedom Commission and it implements a system wide approach with its foundation steeped in recovery principles. However, transformation of the delivery of mental health services with a recovery oriented approach is problematic (Davidson, O'Connell, Tondora, Styron, & Kangas, 2006). Some of the key obstacles include obtaining a consensus on what recovery is and how it is achieved.

One of the difficulties in researching the concept of recovery is due to the numerous operational definitions. The most basic definition of recovery is a "return to health" (http://encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3&search=recovery). With regard to disease, recovery is defined as the "elimination or reduction of symptoms and return to premorbid levels of function" (Bellack, 2006, p. 433). However this definition is more appropriate for acute conditions such as the common cold or flu. The definition is problematic for chronic conditions such as mental illness, asthma, or diabetes in that one may have a reduction in symptoms but may not return to premorbid levels of functioning (Bellack, 2006).

The meaning of recovery is often subjective as well as objective. Recovery is identified objectively as an outcome of mental health service, whereas the subjective nature of recovery is inherent in the process (Corrigan & Ralph, 2005; Silverstein & Bellack, 2008). The definition of recovery also varies based on one's viewpoint; that is, researchers, mental health staff, and consumers view recovery from different perspectives (Lieberman, et al., 2002). What is agreed upon is the notion that recovery does occur (Corrigan, et al., 1999; Corrigan & Ralph, 2005, Ralph, 2000; Ridgeway, 2001).

The mental illness paradigm is shifting. The new paradigm suggests individuals with mental illness are able to be productive and important members of society. The approach towards treatment and intervention must be "facilitative rather than directive, hope inspiring rather than pessimistic, and autonomy enhancing rather than paternalistic, to help every individual reach their full potential" (Sowers, 2005, p. 771). The shift from a "Paternalistic medical model of care" (Bellack, 2006, p. 440) towards a recovery oriented consumer focused approach (Sowers, 2005; Torrey, Rapp, Van Tosh, McNabb, & Ralph, 2005) is the trend.

As noted previously, recovery has been defined by some as an outcome that focuses on an end point at which objective criteria are met (Silverstein & Bellack, 2008). Objective definitions of recovery focus on symptom remission which includes absence of or significant reduction of symptoms (Bellack, 2006; Lyksaker et al., 2010; Silverstein & Bellack, 2008). Objective definitions may also focus more on overall social and/or vocational functioning and less on symptom remission (Lyksaker, et al., 2010; Liebrman, et al., 2002; Sans, et al., 2007). A frequently used operational definition of recovery is a two year period of functioning with minimal symptoms, living independently, maintaining social relationships, and functioning at work or school (Bellack, 2006; Silverstein & Bellack, 2008). Symptom remission and level of functioning are most commonly assessed using self-report instruments with a Likert scale response in which cut-off scores are determined to indicate level of symptoms and functioning, such as the Brief Psychiatric Rating Scale (BPRS) or the Positive and Negative Syndrome Scale (PANSS), etc., (Lieberman, et al., 2002; Lyksaker, et al., 2010; Salyers, et al., 2007; Sans, et al., 2007). Liberman et al. (2002) developed an operational definition of recovery from schizophrenia to include: symptom remission for two consecutive years, vocational functioning defined as at least half time participation in work, school, or volunteer activities, independent living in that day to day supervision is not needed, and peer relationships in which contact with a peer outside the family occurs at least once a week.

Individuals diagnosed with a psychiatric disorder view recovery subjectively more as a process than an outcome (Corrigan & Ralph, 2005). Recovery from this perspective is characterized as a fluid process occurring over time and described as “a journey of healing and transformation” (Bellack, 2006, p. 436). Different elements have been proposed that make up the process of recovery. Davidson et al., (2007) identify basic components of recovery in serious mental illness consisting of interpersonal relationships, symptoms management, and intrapersonal experiences. These include: “being supported by others, renewing hope and commitment, engaging in meaningful activities, redefining self, incorporating illness, overcoming stigma, assuming control, managing symptoms, and becoming empowered and exercising citizenship” (Davidson, et al., 2007, p. 25). Intrinsic in these components is the belief that individuals with mental illness can achieve a quality of life while exercising empowerment and self determination over their own lives. Critical to Davidson et al.'s (2007) assertions is the interpersonal support from others along with a personal belief and hope of overcoming adversity and stigma associated with mental illness. Thus a crucial aspect of this is the willingness to accept the illness but not as something that defines one's existence but merely as one part of the whole.

Elements of recovery have been proposed in an ecological framework which focuses on the interaction between individual, community, and society (Onken et al., 2007). Person-centered elements of recovery focus on the individual and individual motivations. Such elements as hope, self determination, agency, meaning, purpose, and awareness/potentiality are identified. Onken et al. (2007) propose that a fundamental part of the recovery process is changing one's view of self as being more than a psychiatric disability.

The recovery literature is based on the subjective experiences and narratives of consumers living with a serious mental illness, such as schizophrenia (Ralph, 2000; Ridgeway, 2001). Many of these narratives reflect personal life struggles and childhood trauma, as well as negative experiences with the mental health system of care (Ralph, 2000; Ridgeway, 2001). Thus recovery definitions are subjective, that is, a personal story of survival and empowerment and vary from consumer to consumer. This also gave way to the use of qualitative methodology and structured interviews to transform recovery into a measurable phenomenon (Davidson et al., 2005). Basic elements and themes have been identified as core concepts in operationalizing recovery. These salient concepts include intrapersonal experiences such as gaining a sense of hope, empowerment and personal agency, and attaining social integration (Anthony, 1993; Davidson et al., 2005; Davidson & Roe, 2007).

Arising from qualitative methodology, the concept of recovery has primarily used interview methods or a structured questionnaire designed to assess various dimensions (Anderson et al., 2003; Corrigan et al., 1999). In a multinational study (Norway, Italy, Sweden, United States), the qualitative narrative method was used to identify several themes of recovery among individuals with SMI. Common across all countries were intrapersonal factors such as the development of self determination, establishing self-control, involvement in mutual support groups, the need to be accepted, and returning to a meaningful social role (Davidson, et al, 2005). For example, developing acceptance of the illness is illustrated by a man living with schizophrenia, as described in Davidson et al.’s (2005) paper:

> It took several years before I realized that this is something you have to work with and really have a conscious relationship to because in the beginning I guess I thought that this is sort of like breaking a leg. I thought it would take two or three years and then it would pass and it wasn’t like that. It took some time for me to realize that (p. 184).

Another quote describes how a consumer with psychosis has learned to manage symptoms, “I still see things around me, but I don’t pay attention to them” (Davidson, et al., 2005, p. 187). Additionally, recovery in this multinational study found that individuals with SMI view recovery as a process with stages of acceptance in which one is able to rebuild his or her self-identity:

> Before I was in recovery I felt I couldn’t do anything right. I constantly felt that I was stupid and dumb and everything my father told me….But then I realize that…I’m not stupid and I’m not dumb, that I actually know quite a bit (Davidson, et al., 2005, p. 185).

Also a desire and commitment to improve is crucial; “it’s a matter of will power, of believing in myself, pushing myself” (Davidson, et al., 2005, p. 185).

The numerous concepts and themes of recovery include some overlap and are multidimensional in nature, suggesting commonality. The elements of connectedness, acceptance, and agency are consistent with the Belongingness Hypothesis (Baumeister & Leary, 1995) which suggests that the need to belong and to develop a sense of mattering is crucial in achieving a sense of recovery. Although competing definitions of the construct of recovery exist, it is contended that it consists of both subjective intrapersonal and interpersonal experiences as well as indicators of psychosocial functioning, especially symptom management and independent living. Therefore, including both of these dimensions in recovery parallel much of the work completed by Bellack, 2006; Lysaker et al., 2010; and Silverstein and Bellack, 2008 in using both objective and subjective criterion.

Recovery Outcome Studies

Schizophrenia is one of the most studied psychiatric disorders. As noted previously, longitudinal research on schizophrenia suggests that the course and outcome are not as predictable and clear cut as once believed. Jobe and Harrow (2005) conducted a review of several longitudinal studies of individuals with Schizophrenia. The review examined ten longitudinal studies, nine of which were conducted in North America and one of which was an international study coordinated by the World Health Organization (WHO). Results indicate that individuals with schizophrenia do exhibit relatively poorer outcomes than those diagnosed with other psychiatric illnesses. However, three potential outcomes in the natural course of the illness were identified: mild, moderate, and severe outcomes. Also a percentage of individuals experience long periods of recovery. For example the Vermont State Hospital Follow-Up Study followed patients diagnosed with schizophrenia for over 20 years. In this sample 68% of those diagnosed with schizophrenia showed minimal or “no symptoms and 61% were employed in the last year of the study" (Jobe & Harrow, 2005, p. 893). In addition, the Phipps Clinic Follow-Up Study defined 3 outcome categories. After 10 years, 24% of the patients were considered completely recovered and without further relapses, 46% were improved and included those with relapses and remissions as well as some residual symptoms, and finally 30% were considered unimproved and included those still hospitalized and experiencing psychotic symptoms (Jobe & Harrow, 2005, p.894). The Chicago Follow-Up Study found over 20 years that individuals diagnosed with schizophrenia did have poorer outcomes than those diagnosed with other psychiatric disorders, however "over 40% showed periods or intervals of recovery (including both adequate psychosocial functioning and the absence of major symptoms) that could last for several years" (Jobe & Harrow, 2005, p. 895). Interestingly, the WHO study concluded that individuals in developing nations fared better in outcome than individuals in industrialized nations. It has been noted that developing nations are more tolerant of the symptomatic behaviors and marginal functioning of individuals with schizophrenia compared to industrialized nations (Jobe & Harrow, 2005). Variance in outcomes among the studies is in part due to the different diagnostic criteria used. However, even given the difference in strictness of criteria used, between 21% and 57% of those diagnosed with schizophrenia demonstrated good outcomes. While definite and measurable cognitive, social, and emotional deficits do occur among individuals diagnosed with schizophrenia relative to other psychiatric disorders, the studies did provide evidence that the course of the illness does not progressively deteriorate for everyone.

In a ten year study on recovery outcomes for individuals with schizophrenia and co-occurring substance abuse disorders, the following outcome criteria were used: (1) absence of significant symptoms as measured by self-report with a score of > 3 on each of the subscales of the Brief Psychiatric Rating Scale (BPRS); (2) for substance abuse-pursuing long-term abstinence; (3) independent housing with > 80% of days residing in one's own house; (4) competitive employment that pays at least minimum wage and is not associated with a program or mental health agency; (5) social recovery defined as regular contact, at least weekly, with friends that are not substance users; and (6) general satisfaction with life as identified as >5 on the 7 point Quality of Life self report measure (Drake, et al., 2006). Results demonstrated that at the end of the 10 years 62.7% were able to control symptoms of schizophrenia, 56.8% were living independently, 41.4% were employed, 48.9% had regular contact with non-substance abusers, 58.3% reported general satisfaction with life, and 62.5% where maintaining long-term abstinence. In addition the 10 year results noted significant improvements and progress in recovery between 3 and 10 years indicating that recovery occurs over many years and not just initially at diagnosis (Drake, et al., 2006; Ralph, 1999). Interestingly, there were no significant correlations among the various outcome criteria suggesting that these objective measures operate relatively independent from one another (Drake, et al., 2006). That is, the ability to manage symptoms was not predictive of being employed; in fact, the only significant relationship emerging from the predictors was the correlation "between high psychiatric symptoms and poor life satisfaction" (Drake, et al., 2006, p. 470).

In a cross-sectional study the prevalence of symptom remission and social/vocational functioning was measured with a sample size of 1,010 individuals with schizophrenia (San, et al., 2007). Remission criteria were determined by using the Scale for Assessment of Positive Symptoms (SAPS) and Scale for Assessment of Negative Symptoms (SANS) while level of functioning was determined by receiving a score of 81 or higher on the Global Assessment of Functioning (GAF) scale. Forty-five percent achieved remission as measured by SAPS and

SANS. Only 25% of the 45% that obtained remission also obtained full functional remission with a GAF score of over 81 (approximately 10% of total sample) (San, et al., 2007). It appears that some individuals with SMI are in recovery and able to achieve some semblance of a productive and satisfying life. It is unclear from the longitudinal studies what factors differentiate those that do recover from those that do not.

Inter/intrapersonal Factors

Social support

As previously mentioned, social support is one of the most explored constructs in mental health research (Turner & Marino, 1994). Social support is considered essential to recovery (Young & Ensing, 1999). Frequent social contact is correlated with a decrease in depressive symptoms and an increase in ability to handle stress (Riveria, et al., 1991). The concept of social support "conveys the image of individuals being fortified, strengthened, or even protected from adverse conditions through provisions of social relationships" (Barrera, 1980, p. 8). Social support is conceptualized as a "meta construct" (Turner & Marino, 1994, p. 195) and includes such dimensions as social network resources, supportive behavior, and perceived social support (Turner & Marino, 1994).

Individuals with SMI tend to report smaller, less satisfying, social support networks compared to the general population (Froland, Brodsky, Olson, & Stewart, 2000; Pernice-Duca, 2008). Individuals with SMI actively receiving treatment are more likely to turn to mental health professionals as a source of support and assistance compared to those not receiving treatment (Froland, et al., 2000). Individuals with SMI are unlikely to nominate people unfamiliar with the mental health system, or "outsiders", as members of their social support network due to fear of lack of acceptance and understanding (Rosenfield & Wenzel, 1997). Family is typically the most nominated source of support (Rosenfield & Wenzel, 1997; Froland, et al., 2000; Pernice-Duca. 2008).

Satisfaction with social support is significantly associated with recovery (Corrigan & Phelan, 2004; Pernice-Duca, 2008; Turner & Marino, 1994). Satisfaction with and size of network support are significantly correlated with five dimensions of the Recovery Assessment Scale (RAS), a subjective measure of recovery, including personal confidence and hope, willingness to ask for help, goal and success orientation, and not being dominated by symptoms (Corrigan & Phelan, 2004). Dissatisfaction with social support is predictive of depression and social withdrawal (Corrigan & Phelan, 2004; Mohr, Classen, & Barrera, 2004). Researchers have found that perceptions of social support are more predictive of psychological, physical, and mental outcome than objective or observed social support (Roberts, et al., 1999).

The types of perceived support and interactions are also important. Social support may be informational or emotional (Roberts et al., 1999). Informational support assists with problem solving whereas emotional support encourages self esteem and social adjustment (Roberts et al., 1999). Informational support is most effective if it is provided by someone considered knowledgeable or an expert (Roberts et al., 1999). Social networks can have either negative or positive impact on individuals with SMI (Rosenfield & Wenzel, 1997). The more satisfying a relationship one has is related to improved quality of life while the more negative interactions are related to poorer life satisfaction (Rosenfield & Wenzel, 1997). Negative interactions with family, friends, and mental health professionals are associated with “poorer overall life satisfaction, satisfaction with leisure and satisfaction with finances” (Yanos, Rosenfield, & Horwitz, 2001, p. 415). Studies suggest that negative interactions, such as criticism and hostility, reduce self esteem and self regard (Rosenfield & Wenzel, 1997). Numerous studies demonstrate social support among individuals with SMI is associated with improved quality of life (Caron, et al., 1998; Yanos, et al., 2001). Inadequate support, poor quality of life, and feeling lonely plague individuals with SMI (Borge, Martinsen, Ruud, Watne, & Friis, 1999). Individuals with SMI that are satisfied with their support networks report higher quality of life (Borge et al., 1999). Caron et al. (1998) examined the relationship between quality of life and social support among individuals with SMI, welfare recipients, and the general population. Of the three groups, individuals with SMI were the least satisfied with social support. Satisfaction with attachment and reassurance was most predictive of quality of life, suggesting "availability of close relationships that permit integration has a positive effect on their satisfaction with quality of life" (Caron, et al., 1998, p. 472).

Factors that interfere with the establishment and maintenance of social relationships include: severity of symptoms, numerous and prolonged psychiatric hospitalizations, social stigma associated with SMI, and less mutually satisfying relationships (Beal, et al., 2005; Pernice-Duca, 2008). Reciprocity is an important component of satisfying social support relationships (Pernice-Duca & Onaga, 2009). Reciprocity occurs when one is both a provider and a recipient of assistance. Receiving help can threaten self esteem and create feelings of inadequacy, inferiority, and dependence (Roberts, et al., 1999). However, research demonstrates that individuals who offer support and information to others increase their self worth and feelings of competence and value (Roberts, et al., 1999). Also, receiving information and support from fellow consumers of mental health treatment is beneficial in creating a more accepting, less stigmatizing, better understanding experience (Angell, 2003).

Not only do individuals with SMI have a “smaller and less complex” (Rosenfield & Wenzel, 1997, p. 200) social network comprised mostly of family; they also report more loneliness (Angell, 2003). Psychosocial rehabilitation programs, community support, and peer support programs have been found to provide positive social support (Angell, 2003; Armstrong, Korba, & Emard, 1995; Pernice-Duca & Onaga, 2009; Yanos, et al., 2001). For example, peer support programs offer opportunities to provide support and encouragement towards others as well as receive support from peers with similar mental health issues which improve perceived quality of life, sense of identity, and self-perception (Armstrong, et al., 1995). Mead, Hilton, & Curtis (2001) provide a theoretical perspective on the benefit of peer support. Peer support is defined as “a system of giving and receiving help founded on key principles of respect, shared responsibility, and mutual agreement of what is helpful” (Mead, et al., 2001, p. 135). Peer support is seen as an opportunity to challenge negative stereotypes and buffer against stigma as well as gain a healthier, accepting sense of self.

Individuals with SMI often display impaired social functioning and social competence (Angell, 2003). The social dysfunction is thought to be the result of a combination of factors including mental illness symptoms, cognitive impairments, and the stigma and social rejection associated with SMI (Angell, 2003). Community services and psychosocial rehabilitation programs provide an opportunity to create a socially supportive environment. This support has been identified as a means of improving social dysfunction and buffering the negative effects of a limited social support network (Angell, 2003; Beal et al., 2005; Pernice-Duca, 2008; Roberts et al., 1999). Social ties develop out of daily activities (Angell, 2003; Beal et al., 2005). Individuals with SMI are at a disadvantage since integration and participation in community routine are usually severely compromised (Beal et al., 2005). Psychosocial programs, such as clubhouses, create a sense of community that provides a supportive environment and social network in which to develop a personal sense of community and identity (Herman, et al., 2005; Pernice-Duca & Onaga, 2009).

It has been suggested that having and maintaining satisfying and supportive relationships is important in the recovery process (Silverstein & Bellack, 2008). In addition, a “necessary ingredient in the recovery process is the inter-connectedness with others” (Ralph, 2000, p. 491). The inter-connectedness with others comes in the form of relationships with family, friends, peers, and mental health professionals. Support is provided through encouragement, listening, believing in the person, instilling hope and confidence, and treating the individual with respect and dignity. This is congruent with the Belongingness Hypothesis that suggests a sense of belonging is necessary for mental well being. Thus it is posited that there is a connection between interpersonal factors and subjective recovery.

Sense of mattering

In reference to the phrase that identifies “significant others”, mattering was identified as the “direct reciprocal of significance” (Rosenberg & McCullogh, 1981, p.163). Mattering is based on three foundations: first is the need that one requires attention or notice of someone else. This is based on the premise that the “only prospect more bleak than to die unmourned is to die unnoticied” (Rosenberg & McCullogh, 1981, p.164). Second is a sense of importance, the sense that one matters or is the object of concern. This is not the same as approval; consequently, one can feel importance and that they matter even while being criticized. Finally, to feel others are dependent on us, “mattering represents a compelling social obligation and a powerful source of social integration; we are bound by society not only by virtue of our dependence on others but by their dependence on us" (Rosenberg & McCullogh, 1981, p.165). Rosenberg and McCullough (1981) conclude that mattering is a motive that influences our actions.

Research on mattering supports the claim that different people matter to us for different reasons (Taylor & Turner, 2001). In addition, experiencing mattering influences behavior and overall mental health (Rosenberg & McCullough, 1981; Taylor & Turner, 2001). For example, in a study of teenagers, the degree to which teenagers believed they mattered to either parent was directly related to global self esteem (Rosenberg & McCullough, 1981). Mattering was also related to mental health in that adolescents who felt they mattered to their parents were less likely to be depressed, anxious, or worried, or have somatic complaints (Rosenberg & McCullough, 1981). Results were independent of global self esteem. The relationship between mattering and delinquency was examined among adolescent boys. Results showed that adolescents who scored low on a mattering index were more likely to report delinquent behaviors such as vandalism and theft (Rosenberg & McCullough, 1981). It is proposed that the reason for this is our "innate propensity to get ourselves noticed and that failure to command attention of other people is painful" (Rosenberg & McCullough, 1981, p. 173), which motivates individuals to do things to get noticed. Finally, it appears that mattering and significant others are linked, indicating a "tendency toward reciprocity between mattering and significance; we tend to care about those who, we believe, care about us" (Rosenberg & McCullough, 1981, p. 174).

Mattering is theorized as essential to our sense of self and society (Elliot et al., 2004). In order to experience mattering one must recognize it interpersonally (Rayle, 2006). The "antithesis of mattering, brings about the detrimental perception of not mattering, or believing we are insignificant and unimportant to others" (Rayle, 2006, p. 483). Two categories of mattering have been identified: attention mattering and relationship mattering (Rayle, 2006).

Attention mattering refers to being recognized and acknowledged, which subsequently confirms our existence. Lacking attention may have serious negative effects on self esteem and self concept (Elliot et al., 2004). There are two types of relationship mattering: importance and reliance. Importance exists when others show concern and interest in us. Reliance mattering refers to experiencing mattering when others depend or rely on us. Research exploring the impact of mattering has found it to have numerous implications. Rayle (2006) suggests that a therapist should provide a sense of mattering to their clients in order to improve and strengthen the therapeutic relationship. Also, therapists that perceive they matter to their client's are likely to experience more personal and job satisfaction (Rayle, 2006). Research conducted on the statuses, roles, and occupational conditions on mattering found several effects (Schieman & Taylor, 2001). For example, working women report higher degree of mattering than working men. Women with higher education report more mattering compared to women with less education. Married individuals report greater mattering unless conflict or strain exists in the marriage (Schieman & Taylor, 2001). Studies on mattering among military personnel affected by downsizing found that "just spending time with other people produces higher levels of mattering" (Rohall, 2003, p.10).

It is posited that mattering is an important construct that explains the impact that social support has on psychological well being. It is noted that the concept of mattering may overlap with similar constructs such as interpersonal dependency, mastery, and perceived social support (Taylor & Turner, 2001). Research suggests that while there may be some overlap between mattering and social support, there is "unambiguous evidence" (Taylor & Turner, 2001, p. 323) that mattering contributes uniquely to the prediction of depression among women and may offer a protective factor. Mattering has implications for those with SMI in that alienation from society, often experienced by individuals with SMI, also experience less mattering. Mattering also influences self concept and self esteem (Elliot et al., 2004). Thus individuals with SMI may be at risk for not experiencing mattering but would benefit from the positive effects of mattering.

Sense of community

As noted earlier, social support is considered an important component of recovery in serious mental illness. Research has just begun to examine the role of clubhouses in the development and impact of a social support network on recovery (Pernice-Duca & Onaga, 2009). Clubhouses provide an opportunity for socialization and the formation of social connections (Pernice-Duca & Onaga, 2009). One of the expected benefits of clubhouses is the development of a sense of community that is created within an intentional environment (Mastboom, 1992; Herman, et al., 2005). Sense of community has been conceptualized as a multidimensional construct that includes;

> (a) needs fulfillment-a perception that members' needs will be met by the community; (b) group membership-a feeling of belonging or a sense of interpersonal relatedness; (c)-influence-a sense that one matters, or can make a difference, in a community and that the community matters to its members; and (d) emotional connection-the belief that members have and will share history; place, and experiences (Peterson, Speer, & Hughey, 2006, p. 454).

The presence of a sense of community incorporates a sense of belonging and mutually supportive and reciprocal relationships which is often missing in more traditional mental health programs (Herman et al., 2005). This sense of community also promotes recovery through shared emotional connections, and a sense of ownership and belonging through membership (Herman et al., 2005). According to the Belongingness Hypothesis, human beings have a "pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships" (Baumeister & Leary, 1995, p. 497). As stated earlier, the lack of close social bonds is associated with decreased satisfaction, depression, and loneliness, and increased stress (Baumeister & Leary, 1995). People who are lonely perceive a sense of social isolation; however, loneliness "seems to be a matter more of a lack of intimate connections than of a lack of social contact" (Baumeister & Leary, 1995, p. 507). Clubhouses provide an opportunity to create close supportive reciprocal relationships for individuals with serious mental illness that they otherwise may not have. The degree of acceptance and respect customarily provided by staff to clubhouse members creates a sense of belongingness. Experiencing a sense of mattering by others confirms one's sense of belonging. Thus it is hypothesized that the more individuals with SMI participate and immerse themselves in the Clubhouse, a greater sense of community, sense of mattering, and perceived social support will be experienced.

Stigma

As stated previously, the exact mechanism or process that social support provides in improving social adjustment and quality of life is not clearly understood. However theories exist. One such theory is the modified labeling theory (Wright, Gronfein, & Owens, 2000). This is a version of labeling theory and addresses the role that stigma plays in outcome. The basic tenet of modified labeling theory is that labeling and stigma associated with identification of SMI play a causative role in relapse and negative outcomes (Wright, et al., 2000). It is posited that the effects of stigma are the result of either persistent social rejection or the development of a "stigmatized self concept" (Wright, et al., 2000, p. 71) that then results in negative outcomes. It is suggested that repeated social rejection results in decreased self esteem; while being labeled SMI results in viewing themselves in a negative way, in ways that create a "state of social psychological vulnerability to prolonged and recurrent problems" (Wright, et al., 2000, p71). In their study, Wright, et al. (2000) examined the connections between stigma social rejections and self concept among individuals with SMI. They found that social stigma is related to negative outcomes via social rejection, and that prolonged stigma and experiences of social rejection negatively impacts self-esteem and self-concept. In response, individuals with SMI are more likely to avoid contact with “outside normals” (Wright, et al., 2000, p. 82) and instead interact with only those that are close and aware of their illness, thus limiting social interactions. In addition, it has been suggested that a construct “closely related to self-experience in schizophrenia is self stigma” (Lysaker, et al., 2010, p. 38). Self stigma refers to the belief an individual with SMI has that he or she is not as important as others (Lysaker, et al., 2010). It is hypothesized that individuals with SMI who are able to experience a sense of support and acceptance by others will be protected from the negative effects of stigma. Thus it is posited that inter/intrapersonal factors and clubhouse participation will diminish the negative impact of perceived stigma.

Psychosocial Clubhouses

Psychosocial rehabilitation programs have increased dramatically since the 1990’s (Lucca & Allen, 2001). Psychosocial rehabilitation programs provide numerous services including self-help and mutual-help groups, community residential services, peer run drop-in services, supported education and employment services, and clubhouses (Lucca & Allen, 2001). Research has identified the benefits of many of these programs in providing effective treatment for individuals with serious mental illness. For example, self-help groups have been found to increase social support, and create a sense of belonging, and a sense of empowerment (Hardiman & Segal, 2003).

One type of psychosocial rehabilitation program that provides community support is the psychosocial clubhouse. Psychosocial clubhouses differ from self help programs in that they are more structured and formally funded to provide specific services (Holter & Mowbray, 2004). The clubhouse is a form of psychosocial rehabilitation that began in 1948 as the Fountain House by a group of psychiatric patients released from a state hospital (Macias, Jackson, Schroeder, & Wang, 1999; Mastboom, 1992). The purpose of the Fountain House was to provide support and a safe haven to former mental health patients while they adjusted to community living (Macias, et al., 1999; Mastboom, 1992). Such support was necessary due to the frequently compromised ability to care for oneself after suffering with psychiatric problems as well as the stigma and discrimination from society which created a discouraging and difficult atmosphere (Mastboom, 1992). This “safe haven” was accomplished by providing supportive and purposeful activities focusing on achieving success in the outside world. It is predicated on the belief that “belonging to a group in which one knows oneself to be welcome, safe, appreciated, and treated with respect is one of the most basic human needs” (Mastboom, 1992, p. 11). Similarly the Belongingness Hypothesis posits the same underlying principles as the psychosocial clubhouse model: the importance of belonging, being accepted, and important to others. It is the supportive presence of the larger community that propels individuals to move forward in their recovery journey.

Clubhouses can now be found throughout the world and many follow guidelines and policies of the non-profit organization known as the International Center for Clubhouse Development (ICCD). The clubhouse model “was conceived as an intentional therapeutic community composed both of people who have a serious mental illness and generalist staff who work within the clubhouse” (Macias, et al., 1999). Clubhouses typically operate Monday through Friday during the day with some offering evening and weekend social and recreational activities. Participation is voluntary and there is an open enrollment policy. The only admission requirement is a diagnosis of a serious mental illness. Support services provided by the clubhouse include work of the clubhouse (e.g., clerical, kitchen, maintenance), employment support, housing assistance, money management, individual advocacy, assistance with benefits and opportunities for after-hour social activities (Macias, et al., 1999). High fidelity clubhouses are characterized by a no-nonsense business like atmosphere with collegiality among staff and consumers working side by side on the business of the house (Pernice-Duca, Saxe, & Johnson, 2010).

Research has just begun to examine the effectiveness of psychosocial rehabilitation programs such as clubhouses. Holter et al., (2004) identified the importance of key aspects of consumer based programs, namely, empowerment, consumer control, and the ability to make decisions and choices, participate without coercion, and to be treated with respect from staff members. In a study conducted by Pernice-Duca, et al. (2010), both staff and clubhouse consumers experienced the clubhouse environment in much the same way with minimal incongruence and equally perceived low and high fidelity clubhouses.

Research has demonstrated the effectiveness of clubhouses in many areas such as employment, quality of life, and leisure motivation (Lloyd, King, McCarthy & Scanlan, 2007; Moywbray et al., 2006; Schonebaum, et al., 2006; Warner, Huxley, & Berg, 1999). For example, clubhouses were compared to the Program of Assertive Community Treatment (PACT) model in assisting individuals with SMI to obtain employment. Participants from both programs achieved similar levels of employment. However, participants from the clubhouse remained employed longer and earned higher wages (Schonebaum, et al., 2006). In a comparison study, a group of individuals attending a clubhouse was matched with a group that did not have access to a clubhouse. The clubhouse group rated higher on quality of life domains as well as social relationships compared to the control group (Schonebaum, et al., 2006). In a study examining the role of leisure motivation on recovery using a clubhouse setting, clubhouses were chosen because of their focus on “people’s strengths and not the symptoms of their illness” (Lloyd et al., 2007, p. 35) as well as the range of activities and social support clubhouses have to offer. Results showed that those motivated to participate in leisure activities reported a higher degree of recovery (Lloyd et al., 2007). In addition, a positive correlation between leisure motivation and reliance on others was found which supports the notion that social support encourages improved daily functioning.

Readiness for Change

Individuals diagnosed with a SMI are faced with many challenges. Various changes and adjustments need to be made in order to successfully manage their illness. Prior to the recovery movement, it was believed that there was little one could do to improve quality of life and functioning. However, as noted earlier, the realization that recovery is possible with appropriate treatment and support has created an entire movement identifying effective forms of treatment and removing potential barriers.

The Transtheoretical Model of change has been applied in research with substance abuse, serious mental illness, anorexia nervosa, and smoking cessation (Hillburger & Lam, 1999; NiDecker, DiClemente, Bennett, & Bellack, 2008; Prochaska & DiClemente, 1982; Touyz, Thornton, Rieger, George, & Beumont, 2003). The Transtheoretical Model of change is based on Transtheoretical Therapy (Prochaska & DiClemente, 1982). Transtheoretical Therapy is composed of four variables identified from a comparative analysis of 18 leading therapy systems

(Prochaska & DiCLemente, 1982). The first variable is that individuals having positive expectations for treatment and motivation for change will be more likely to stay in therapy, while individuals that have negative expectations or are unwilling to consider change are more likely to drop out of therapy. The second variable is the processes of change. Various processes such as consciousness raising, catharsis, and role of choice may be used in therapy to assist one in removing barriers and identifying a need for change. The third variable has to do with the content of the therapy. It is assumed that the content of therapy will vary from client to client and should be determined by the client as opposed to the therapist. Finally, stages of change have been identified. Movement through the stages may occur in a linear fashion or may adopt a "revolving-door schema" (Prochaska & DiClemente, 1982, p.283). It appears that using the appropriate therapy at a given stage is more effective in promoting movement and progress. It was found that certain processes of change were used more at different stages of change. For example, verbal therapies such as "consciousness raising, catharsis, and choosing-are most important during the first two stages of change" (Prochaska & DiClemente, 1982, p. 285).

The Transtheoretical Model of Change has identified five stages of change (Prochaska & Prochaska, 1999). The first stage of change is the Precontemplation Stage. Individuals in this stage do not intend to change their behavior because they do not recognize it as a problem. They may view the problem as being those around them. Often precontemplators are in therapy because of being pressured by outside forces such as family or the courts. Using measures to identify individuals in this stage of change predicted "93% of therapy dropouts" (Prochaska & Prochaska, 1999, p. 90). The Contemplation Stage occurs when one is aware of a need to change and is considering making a change within the foreseeable future. There is often ambivalence about changing. Individuals in this stage do a lot of thinking about change but often decide they do not want to change, perhaps due to fear of taking a risk (Prochaska & Prochaska, 1999). The Preparation Stage is for individuals that are intending to take action to make a change soon, usually within the month. They are more confident about taking action and recognize the benefit of making a change. Many times individuals in this stage who take action will fail. It is suggested that movement from stage to stage requires the use of appropriate processes; "movement from contemplation to preparation involves the use of cognitive and evaluative processes like consciousness raising and self-reevaluation" (Prochaska & Prochaska, 1999, p. 91). The Action Stage is when the most work gets done. Individuals in this stage work at modifying behavior. This stage usually lasts longer than individuals expect and requires concentrated effort in order to prevent relapse. During this time, different processes must be in place in order to be successful, such as: "more existential processes like self-liberation, more humanistic processes like helping relationships, and more behavioral processes like counterconditioning, stimulus control, and reinforcement management" (Prochaska & Prochaska, 1999, p.91). The final stage is the Maintenance Stage. In this stage, individuals are trying to maintain gains and continue implementing changes made. Various processes such as counterconditioning and stimulus control maybe implemented to prevent relapse. Individuals in this stage typically have a high degree of self-efficacy and self-confidence and resist temptation to return to previous problematic behaviors (Prochaska & Prochaska, 1999).

The Transtheoretical Model of Change has been applied to determine the appropriateness and effectiveness of therapeutic interventions, most notably in individuals with SMI and substance abuse disorders (DiClemente, et al., 2008; NiDecker, et al., 2008). Individuals with dual diagnoses are often considered problematic to treat and difficult to engage; often motivation for treatment is at cross purposes (DiClemente, et al., 2008). It has been noted that those with

SMI and substance abuse have “more dysfunctional thought processes, impaired decision-making skills, and the lack of insight diminish the ability to recognize the need for treatment as well as the individuals’ ability to seek and participate in it” (DiCLemente, et al., 2008, p. 25).

Motivation for change has been identified as an important catalyst in successful treatment of addiction (DiClemente, et al., 2008). Motivation and readiness for change in individuals with SMI may be more problematic due to psychiatric symptoms and cognitive impairments (DiClemente et al., 2008). Individuals with SMI are often noncompliant with medications and/or treatment and may require repeated admissions into the hospital. Thus assessing readiness for change and applying appropriate interventions, theoretically, should improve effectiveness of treatment, treatment outcomes, and promote recovery.

Research using a stage of change assessment among individuals with SMI identified individuals in four different groups: precontemplative, contemplative, action, and maintenance (Chou, et al., 2004; Hillburger & Lam, 1999). In addition, it was found that the development of self efficacy in management of mental illness was related to progress through the stages of change while individuals in early stage of change benefit most from “focus on enhancing cognitive-oriented programs (e.g. outcome expectancy, especially in exploring positive outcomes of performing good social, coping, and help seeking behaviors” (Chou, et al., 2004, p. 45). Stage of change has been found to be predictive of treatment retention (Rogers, et al., 2001). Applications using appropriate stage-wise interventions within a mixed stage group of individuals with SMI have been shown to be effective (August & Flynn, 2007). Different techniques such as motivational interviewing, cognitive behavioral therapy, and illness management were used based on individually identifying the stage of change during a group process. The group itself developed more cohesiveness, and individuals in the earlier stages moved to action stages (August & Flynn, 2007). This was found to be more effective than using the same approach regardless of the stage of change members of the group were in or grouping individuals by stage of change. It is hypothesized that an individual's readiness for change is significantly related to recovery and level of clubhouse engagement.

Summary

Research is needed to gain a better understanding of the recovery process from mental illness. Large subgroups of individuals with mental illness achieve long periods of remission from symptoms and are able to function in society and develop and maintain relationships. In order to improve treatment options and outcomes, identification of factors that are influential, such as social support, sense of belonging, sense of community, stigma, and stage of change, must be identified and mobilized. In particular the role that clubhouses play in the recovery process may be instrumental in improving prognosis. The social support that one perceives having and the sense of mattering one maintains, as well as the impact of stigma one experiences towards mental illness, have been minimally explored. Clubhouses provide a unique form of treatment in that they are run by mental health professionals and consumers. The degree of functioning, severity of symptoms and amount of social support vary among members and provide an opportunity to examine factors that impact recovery.

Hypotheses

H_{01}: Relationships exist between diagnosis, functional indicators of recovery and subjective recovery.

H_{01a}: Individuals that identify a decrease in symptoms, absence of hospitalization in the last 2 years, independent functioning, and adequacy of financial resources will be predictive of a greater sense of subjective recovery with independent functioning contributing the most variance.

H_{01b}: When controlling for independent functioning subjective recovery will not vary by diagnostic classification.

H_{02}: Inter/intrapersonal factors will contribute to subjective sense of recovery.

H_{02a}: Perceived social support, sense of mattering, sense of community, and perceived stigma are predictive of an increased sense of subjective recovery with sense of mattering accounting for the greatest variability in the criterion.

H_{03}: Relationships between clubhouse participation, readiness for change, inter/intrapersonal factors, and subjective recovery exists.

H_{03a}: Individuals in later stage of change will report a greater sense of subjective recovery.

H_{03b}: Individuals who are more engaged in the clubhouse will experience a later stage of change and greater sense of inter/intrapersonal factors.

H_{04}: Inter/intrapersonal factors and clubhouse participation diminish perceived stigma.

H_{04a}: A negative relationship will exist between inter/intrapersonal factors and clubhouse participation, and perceived stigma.

H_{05}: Sense of belonging forms the foundation from which the concept of recovery emerges.

H_{05a}: Sense of belonging is predictive of positive identity, hope and meaningfulness, and responsibility for illness and support.

H_{05b}: Positive identity will predict sense of mattering and a decrease in perceived stigma.

H_{05c}: Responsibility for illness and support will predict willingness to ask for help, goal success and orientation, perceived social support, and reliance on others.

H_{05d}: Hope and meaningfulness will predict sense of community and personal confidence and hope.

Figure 1 outlines the hypotheses, variables and statistical analysis used to examine the data. This study was designed to examine inter/intrapersonal factors of recovery. Namely social support, sense of belonging or “mattering”, clubhouse participation, sense of community within the clubhouse, and readiness for change were explored in relationship to subjective measures of recovery. Figure 2 is a proposed conceptual model based on the theoretical framework of the Belongingness Hypothesis. The model conceptualizes sense of belonging as the underpinnings for the development of recovery. Recovery is conceptualized as: functional recovery, personal responsibility and support, goal and success orientation, and hope and meaningfulness.

Figure 1

Research Hypotheses

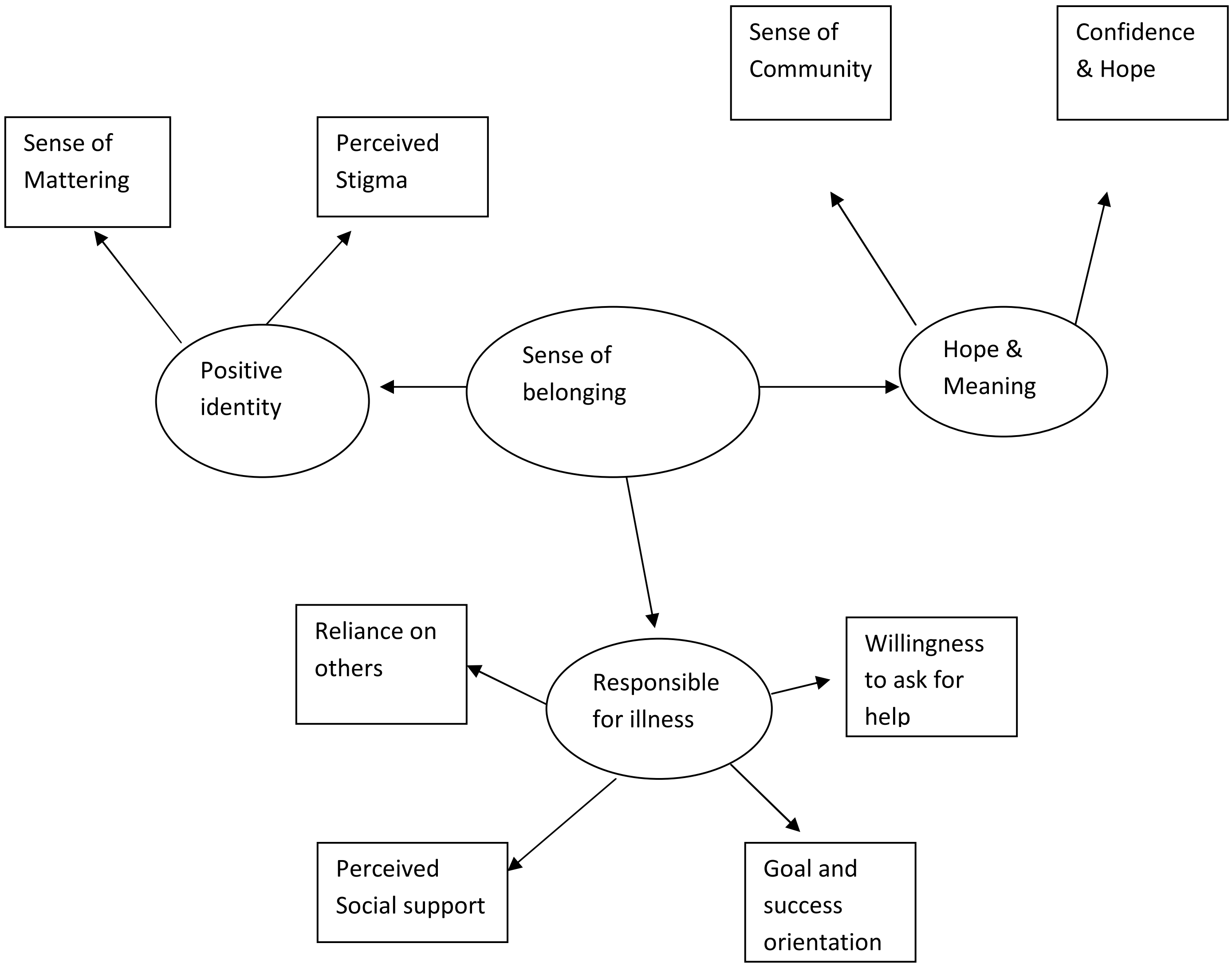
Research Questions	Variables	Statistical Analysis
1a) What is the relationship between diagnosis, functional indicators of recovery and subjective recovery? 1b) What are the differences across diagnostic classifications?		
$H_{1.1}$ Individuals that identify a decrease in symptoms, absence of hospitalizations in the last 2 years, and independent functioning will be predictive of a greater sense of subjective recovery with level of functioning contributing the most variability.	Predictors: • Functional indicators of recovery as measured by absence of symptoms (MCSI), absence of hospitalizations in last 2 yrs, level of functioning (LI), and adequacy of financial resources (AFR) • Mental Health DSM Diagnosis Criterion: • Subjective Recovery as measured by Recovery Assessment Scale	Multiple Linear Regression
$H_{1.2}$ When controlling for level of functioning subjective recovery will not vary by diagnostic classification	Independent Variable: • Diagnostic Classification (DSM-IVTR axis 1 diagnosis). Covariate: • Level of social functioning (LI) Dependent Variable: • Subjective recovery (RAS)	ANCOVA
2. Which inter/intrapersonal factors contribute the most variability to a subjective sense of recovery		
$H_{2.1}$ Perceived social support, sense of mattering, sense of community, and perceived stigma are predictive of an increased sense of subjective recovery with sense of mattering accounting for the greatest variability in the criterion.	Predictors: • Inter/intrapersonal factors as measured by Perceived Social Support, Sense of Mattering, Sense of Community, and Stigma Scale. Criterion: • Subjective Recovery as measured by Recovery Assessment Scale (RAS)	Hierarchical regression

3. What is the relationship between clubhouse participation, readiness for change, inter/intrapersonal factors, and subjective recovery?		
$H_{3.1}$ Individuals in later stage of change will report a greater sense of subjective recovery.	Predictor: • Stage of Change as measured by the Stages of Change Questionnaire, with early stage of change identified as either precontemplation or contemplation and later stage of change identified as either action or maintenance Criterion: • Subjective Recovery as measured by RAS	Multiple Regression
$H_{3.2}$ Individuals who are more engaged in the clubhouse will experience a later stage of change and greater sense of inter/intrapersonal factors	Predictor: • Level of clubhouse participation (i.e. # of days per week X # 0f hours per day). • Length of clubhouse membership Criterion: • Stage of Change as measured by the Stages of Change Questionnaire, with early stage of change identified as either precontemplation or contemplation and later stage of change identified as either action or maintenance • Inter/intrapersonal factors as measured by perceived social support, sense of community, and sense of mattering	Multivariate regression analysis
4. Do inter/intrapersonal factors and clubhouse participation diminish perceived stigma?		
$H_{4.1}$ A negative relationship will exist between inter/intrapersonal factors and clubhouse participation and perceived stigma,	Predictor: • Inter/intrapersonal factors as measured by perceived social support (MSPSS), sense of mattering (SOM), and sense of community (SOC). • Level of clubhouse participation (i.e. # of days per week X # 0f hours per day). • Length of clubhouse membership Criterion: • Perceived stigma as measured by the Stigma Scale	Multiple Regression

5. Does sense of belonging form the foundation from which concepts of recovery emerge?		
H_{05a}: Sense of belonging will be predictive of positive identity, hope and meaningfulness, and responsibility for illness and support. H_{05b}: Positive identity will predict sense of mattering and a decrease in perceived stigma. H_{05c}: Responsibility for illness and support will predict willingness to ask for help, goal success and orientation, perceived social support, and reliance on others. H_{05d}: Hope and meaningfulness will predict sense of community and personal confidence and hope.	Latent Variables: • Sense of Belonging • Positive identity • Hope and meaningfulness • Responsibility for illness and support Indicators: • Stigma • Sense of Community (SOC) • Sense of mattering (SOM) • Perceived Social Support (MSPSS) • Willingness to ask for help (RAS Factor 2) • Goal success and orientation (RAS Factor 3) • Reliance on others (RAS Factor 4) • Personal confidence and hope (RAS Factor 1)	Structural Equation Model

Figure 2

Proposed Model of Sense of Belonging and Recovery Concepts



CHAPTER 3

Methods

This study is a correlational design utilizing predictor and criterion variables. Data was collected via self assessment and interviews. Previous studies have found self-report instruments to be reliable and are "often recommended because they reflect the unique experience of individuals" (Crane-Ross, et al., 2006, p. 143). However, concern exists regarding the use of self-report instruments with individuals with psychiatric illnesses. The validity and accuracy of self-report instruments is contingent upon the ability and willingness of the person completing the form to provide accurate information (Bell, Fiszdon, Richardson, Lysaker, & Bryson, 2007). It has been suggested that the psychopathology and cognitive deficits that individuals with SMI often experience interferes with the validity of self-report instruments (Ready & Clark, 2002). Further, it is believed that individuals with schizophrenia lack insight into their disease and will under report symptoms (Bell, et al., 2007). However, the use of self-reports among individuals with psychiatric diagnoses is becoming more common (Bell, et al., 2007).

Consequently, research has examined the agreement between self-reports and informant ratings to determine the accuracy and validity of using self-reports with this population (Bell, et al., 2007). Studies have shown that self and informant agreement in clinical samples is similar to that of nonclinical samples (Bell, et al., 2007; Liraud, Droulout, Parrot, & Verdoux, 2004; Ready & Clark, 2002). For example, Ready and Clark (2002) investigated the agreement between self and informant reports on temperament, personality traits, and interpersonal problems in a sample of adult psychiatric patients. Results indicated that self and informant ratings corresponded significantly and were similar to nonclinical populations, "suggesting that the overall effect of psychopathology on self ratings of personality traits, temperament, and interpersonal problems is minimal" (Ready & Clark, 2002, p. 45). Liraud et al. (2004) compared the self reported positive, negative, and depressive symptoms of individuals acutely ill with psychosis with objective measures. Results indicated that individuals with acute psychotic disorders were able to accurately assess positive, negative, and depressive symptoms, except for persecutory delusions and poverty of speech (Liraud, et al., 2004). Furthermore, a study examining self-report instruments with patients with schizophrenia found that even those with poor insight were able to accurately report symptoms and personality characteristics (Bell, et al., 2007). Also, Bell et al. (2007) found that even those with poor insight "were able to accurately report their degree of social avoidance and social withdrawal" (p. 43). It has been suggested that the use of self administered instruments may be useful in assessing progress in treatment, promoting participation in treatment, be useful in educational programs and be an effective method to collect information (Liraud, et al., 2004). This particular study is interested in obtaining the subjective experience of the individual with SMI, thus the viewpoint of the individual is most important. Identifying and considering the perspective of individuals with SMI is important when "assessing the extent to which mental health services have met consumers' needs and when identifying activities and relationships" (Crane-Ross, et al., 2006, p153).

Procedures

Approval for the proposed study was obtained from the Human Investigation Committee (HIC) at Wayne State University (Appendix A). A letter of invitation (Appendix B) was sent to the Clubhouses in Michigan via email explaining the purpose of the study and requirements of participation. Interested clubhouses contacted the Principal Investigator via email and a date was set for the research team to come to the Clubhouse. The research team consisted of the Principal

Investigator (PI), five graduate students from Wayne State University, College of Education, Marriage and Family Psychology Program, a Wayne State University faculty advisor from the College of Education, Marriage and Family Psychology Program, and a Clubhouse Consumer. All members of the research team completed HIC training as well as attended a two hour training program to insure consistency in administration of the survey instruments.

The research team arrived at each clubhouse between 9:00 and 9:30, and left the clubhouse between 2:00 and 3:00 pm. The number of research assistants that participated in the data collection at each clubhouse varied from two to five, based on their availability. Upon arriving at the clubhouse, the research team was introduced to the members during the Clubhouse's community meeting. At this time, the PI introduced the research team and provided information about the research project, requirements for participation, and answered all questions. No incentives to participate were offered. Members were eligible to participate if they were 18 years or older, a member of the clubhouse, their own legal guardian, and currently not receiving crisis support services. Members that had a legal guardian did not participate in the study since consent from the guardian could not be obtained prior to administering the survey. The voluntary nature of participation in the study was emphasized. In addition, it was stressed that participation would not affect the consumer's relationship with the Clubhouse and all responses would be confidential, anonymous, and not shared with clubhouse staff.

A total of 10 clubhouses participated from March 2010 to October 2010. Two of the 10 participating clubhouses had members sign up prior to the visit while the other clubhouses had interested members sign up the day of the research team's visit, after the community meeting. The consumers that signed up were approached by one of the research team members and provided the research information sheet (Appendix C) and further explanation of the research procedure, as needed. Participation and completion of the research questions were considered consent. Since each Clubhouse was only visited once, the HIC at Wayne State University recommended that a Research Information sheet be used instead of a written consent form. In addition, a master list identifying names and identification numbers was not kept. Additionally, a HIPAA consent form was not necessary since access to medical records was not required. Participants were asked to sign a release of information (Appendix D) authorizing verification of mental health diagnosis and participation history at the clubhouse from clubhouse records, although not completing the release of information did not preclude a consumer from participating.

Interviews were conducted in private or semi-private areas, away from others, to insure privacy. The interviews took between 30 to 60 minutes on average to complete. The survey instruments (Appendix E) were read to the participant, unless the participant preferred to complete it on their own. The order of the survey instruments for administration varied to control for any effect the order of the instruments might have. Each participant was given an identification number. The method of administration, interview or self-report, the research assistant that did the interview, and the clubhouse where the interview took place, were coded. By all accounts, participants were willing to participate and were cooperative.

The number of participants required for this study was determined using G*Power, a power analysis program frequently used for social and behavioral research (Erdfelder, Faul, & Buchner, 1996). In order to determine the sample size, the F tests Linear multiple regression and a priori analysis was chosen with the effect size (f^2) = .15, the alpha level (α) =.05, and power (1-β err prob) = .95 and the number of predictors = 5. A total sample size of 138 with a critical F 2.28 was obtained. A total number of 149 consumers participated in the study. Four members were unable to complete the survey due to running out of time before their ride arrived, and two surveys were deemed invalid due to the responses and behavior of the participants, resulting in a sample size of 143. None of the participants became distressed or upset during or after the interview.

Two clubhouses that were interested in participating were located too far for feasible access. In an effort to not dismiss interested participants and clubhouses, survey instruments were mailed to one clubhouse in Lower Michigan. The Director of the clubhouse was informed over the phone of the procedure. In addition to the survey instruments, release of information, research information sheets, and a stamped self-addressed large envelope were included. The second clubhouse that participated by self-report was in Upper Michigan. The PI dropped off survey instruments, release of information, research information sheets, and a stamped self-addressed envelope to the Clubhouse. The PI gave an introduction of the research project to the members during their clubhouse community meeting and answered any questions the members had. Completed survey instruments from both clubhouses were mailed to the PI. A total of 27 instruments were self-report.

The release of information was attached to the Clubhouse Data Sheet (Appendix F) asking for the participant’s diagnosis, length, frequency, and duration of attendance. This was given to the clubhouse director to complete. After it was completed, the release of information sheet was separated from the Clubhouse Data Sheet so as to maintain anonymity and then returned to the PI.

Clubhouse Characteristics

Of the ten clubhouses that participated, two were ICCD certified; all the other clubhouses had ICCD trained managers and the clubhouses followed the ICCD standards. All of the clubhouses operated the work-order day, with at least five different units. Each clubhouse in the study had kitchen, employment, clerical, maintenance, and snack units. Every clubhouse in the sample had community meetings run by the members and staff. Members volunteer for different duties and work units to maintain operations of the clubhouse. The average number of participants from each clubhouse was 14.3, spanning between three and 24 members. A majority of the members identified their current clubhouse as the only clubhouse program they've attended (80.9%), whereas a small percentage indicated attending a different clubhouse in the past (19.1%) The average length of clubhouse membership was 5.16 years with a median of three years. Membership spanned from less than one year to over twenty-five years. Most members participated in the work-order day by volunteering to work in some of the departments/units, with only 11.2% of the members indicating they did not participate in the work of the clubhouse. More than half the members (53.1%) reported participating in more than one department/unit. Clubhouse members reported coming to the clubhouse an average of four days a week (X=3.8, range 1-5) and spending an average of five hours a day at the clubhouse (X=5.5, range 1-8). Member participation is similar to that reported in other studies (Pernice-Duca & Onaga, 2009).

Participant Demographics

The demographic characteristics of the sample population are in Table 1. The sample characteristics are similar to those reported in other studies involving clubhouse members

(Mowbray, et al., 2006; Pernice-Duca, 2010). The percentage of male and female participants was almost equal (male = 54%). The age of the participants spanned from 19 to 73 years old with the mean age at 47.1 years. A majority of the sample were Caucasian (75.5%), 16.8 percent were African-American and 4.2% Arabic. A few members identified themselves as Latino (0.7%), Asian (1.4%), and Native American (1.4%). Most participants have never married (58.4%) and 26.6% reported a divorced and 7% indicated being widowed. Only four participants (2.8%) reported currently being married whereas three participants (2.1%) indicated cohabitating with their significant other. Fifty seven percent reported having no children; however those with children had from 1 to 7 children with 2 children (18.4%) the most common. A majority of the participants reported living in a private residence (65.7%), while 19.6% reported living in an Adult Foster Care (AFC) home and 11.2% indicated living in a Semi-independent Placement home (SIPS). Participants that live in private residence live alone (31.2%) or with their parents (16.1%), and/or other family members, including siblings and children (24.5%). Participants also identified living with friends that are clubhouse members (13.3%) and friends that are not clubhouse members (14.0%).

Most participants completed high school or obtained a GED (31.5%), while 46.2% reported some college, including associate, bachelor, or master degrees or vocational training. 14.7% reported completing less than a 12th grade education and 6.3% reported less than a 9th grade education. A majority of participants reported not working, 80.3% versus 19.7% that reported currently working. Of those not working, 31.5% indicated they have been looking for work for the last 6 months. In addition, 15.4% reported attending school and 35.7% reported doing volunteer work outside the clubhouse.

An overwhelming majority reported taking psychotropic medications (95.8%). A majority of participants, 62.2% denied a past history of substance abuse. A majority of participants reported being hospitalized at least once in the past (83.9%).

Table 1.

Demographic Characteristics of Participants (N=143)

Characteristics	Categories	N	%	M
Age	Range 19-73 yrs			47.1
	19-30 yrs	19	13.4	
	31-50 yrs	55	38.7	
	Over 50 yrs	68	47.9	
Gender	Male	77	54.6	
	Female	64	45.4	
Race	African-American	24	16.8	
	Arabic	6	4.2	
	Asian	2	1.4	
	Caucasian	108	75.5	
	Latino	1	0.7	
	Native American	2	1.4	
Education	Less than 9th grade	9	6.4	
	Less than 12th grade	21	14.7	
	High school graduate/GED	45	31.5	
	Some College	41	28.7	
	Associates degree	12	8.4	
	Vocational training	3	2.1	
	Bachelor degree	8	5.6	
	Master degree	2	1.4	
	Not reported	2	1.4	
Type of housing	Private residence	94	65.7	
	AFC	28	19.6	
	SIPS	16	11.2	
	None of the above	5	3.5	
Others in the home	Alone	46	31.2	
	Parents	23	16.1	
	Siblings/Spouse/children	35	24.5	
	FriendsClubhouse	19	13.3	
	Members	20	14.0	
	Friends Not Clubhouse Members			

Table 1 Continue

Relationship status	Never married	80	55.9	
	Married	4	2.8	
	Divorced	38	26.6	
	Widowed	10	7.0	
	Significant other	5	3.5	
	Not Reported	7	4.2	
Children	Yes	54	37.8	
	No	82	57.3	
	Not Reported	7	4.9	
Employed	Yes	28	19.7	
	No	114	80.3	
Looking for work	Yes	45	31.9	
	No	96	68.1	
Attending school	Yes	22	15.6	
	No	119	84.4	
Volunteer work	Yes	51	36.2	
	No	90	63.8	
Medications	Yes	137	95.8	
	No	6	4.2	
Hospitalizations	Yes	120	83.9	
	No	23	16.1	
#of Hospitalizations	Range 0-40			5.2
Hx drug/alcohol abuse	Yes	53	37.3	
	No	89	62.7	

Psychiatric diagnoses were self-reported (n = 124) and once the participant completed the release of information (n = 88), the Clubhouse director, verified each diagnosis with clubhouse records. The primary psychiatric diagnosis provided by the Clubhouse director was used for statistical analysis. For those participants' that declined to provide a release of information to gather diagnostic data, the self-report diagnosis was used (n = 32). For analysis purposes, the Axis 1 code was dichotomized into schizophrenia spectrum disorder (0=schizophrenia spectrum disorders) and mood and anxiety disorders (1=mood and anxiety disorders).

Instruments

Demographic variables. Demographic information obtained included: age, gender, ethnicity, marital status, living arrangements, education level, working status, psychiatric diagnosis, use of psychotropic medication, and frequency of psychiatric hospitalizations.

Clubhouse participation. Information obtained included length of time attending clubhouse as well as number of times per week and length of each stay. Information on activities consumers participated in while at the clubhouse was also gathered.

Sense of Community Scale. The Sense of Community Scale (Buckner, 1988; Herman et al., 2005) measures the degree of cohesiveness or psychological sense of community one experiences within the clubhouse setting. The psychological sense of community is the "sense of belongingness, fellowship, "we-ness", identity, etc., experienced in the context of a functional (group) or geographical based collective" (Buckner, 1988, p. 773). The instrument was adapted from the Neighborhood Cohesion Instrument (NCI; Buckner, 1988) and by concept mapping that identified components essential in sense of community development within clubhouses (Herman et al., 2005). The NCI consists of three scales measuring neighborhood cohesion, psychological sense of community, and neighboring characteristics (Buckner, 1988). The "internal consistency and stability coefficients were = .95" (Buckner, 1988, p. 782). The average test-retest reliability was r = .80. Eleven of the eighteen items from the NCI were included in the scale along with 5 items that were identified through concept mapping (Herman, et al., 2005). A principal component analysis identified a two structure instrument consisting of Sense of Community and Benefits of Membership and Recovery with an internal consistency of .91. Responses from the

20-item scale range from 1 “strongly disagree” to 5 “strongly agree”. The Cronbach’s alpha for the current study for this scale is α = .90 for the total score.

Multidimensional Scale of Perceived Social Support. The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, et al., 1988) is a scale that measures perceived support from three sources- family, friends, and a significant other. Responses to the items are rated on a 7 point Likert scale from, “very strongly disagree” to “very strongly agree”. The Cronbach’s coefficient alpha for internal reliability for the total scale is .88 and for the subscales, .91, .87, .85 for Significant Other, Family, and Friends respectively (Zimet, et al., 1988.). Test-retest reliability was completed 2-3 months after the initial assessment. The test-retest reliability for the whole scale has been reported in different studies ranging from a coefficient alpha of .85 to .93 while the subscales ranged from: Significant Other α = .72-.91, Family α = .85-.89, and Friends α =.75-.91 (Canty-Mitchell & Zimet, 2000; Zimet, et al., 1988). The Kaiser Normalization test extracted three factors for principal component analysis (Zimet, et al., 1988). Items had high loadings on factors for which they were intended with minimal cross loading confirming the subscale grouping of perceived social support from, family, friends, and significant others (Zimet, et al., 1988). These factor analyses results have been repeated in other studies, with the combined factors accounting for 79.3% of the variance (Canty-Mitchell & Zimet, 2000). The item loadings on their respective subscales were .66 or greater and cross-loadings were all less than .26 (Canty-Mitchell & Zimet, 2000).

Construct validity was determined by comparing the MSPSS to the Hopkins Symptom Checklist (HSCL; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), a 58-item self report designed to assess 5 areas of psychological symptomatology including depression and anxiety (Zimet, et al., 1988). Theoretically the concept of perceived social support is negatively related to anxiety and depression. Analysis confirmed correlations between the MSPSS subscales and the HSCL subscales of depression and anxiety. Perceived support from Family was significantly negatively correlated with depression, $r = -.24$, $p < .01$, and anxiety, $r = -.18$, $p < .01$. Perceived support from friends was related to depression symptoms, $r = -.24$, $p < .01$, but not significant to anxiety. The Other subscale was minimally but significantly related to depression, $r = -.13$, $p < .05$ (Zimet, et al., 1988, p. 37).

Convergent validity was determined by comparing the MSPSS with the Network Orientation Scale (NOS). The NOS (Vaux, Burda, & Stewart, 1986) is a self-report scale that measures a person's willingness to utilize his or her support system. The MSPSS subscales scores and total scores moderately correlated with the NOS (Cecil, Stanley, Carrion, & Swann, 1995). For the current study the Cronbach's alpha for the Family subscale, $\alpha = .89$ and for the Friends subscale, $\alpha = .96$. The Other subscale was not used in this study.

*Recovery Assessment Scale***.** The Recovery Assessment Scale (RAS; Corrigan, et al., 1999) is a 41-item self-report measurement in which responses are on a 5 point agreement scale (1 = strongly disagree to 5 = strongly agree). The items are based on narrative analysis from individuals with severe mental illness and their personal accounts of recovery (Corrigan, et al., 1999). The test-retest for the scale is $r = .88$ and has a Cronbach alpha = .93 for internal consistency (Corrigan, et al., 1999). Principal component analysis and varimax rotation was completed and yielded eight factors with eigenvalues greater than 1.00 and accounted for 60% of the RAS variance (Corrigan, Salzer, Ralph, Sangster, & Keck, 2004). Exploratory factor analysis identified five factors that comprise the RAS: factor 1 "personal confidence and hope", factor 2 "willingness to ask for help", factor 3 "goal and success orientation", factor 4 "reliance on others", factor 5 "no domination by symptoms" (Corrigan & Phelan, 2004). Cronbach alpha's for the factors ranged from .74 to .87. Five variables (Hope Hearth Index, Quality of Life, Empowerment, Meaning of Life, Hopkins Symptom Checklist) were used to confirm convergent validity of each of the five factors (see Corrigan & Phelan, 2004). For the current study the Crohnbach's alpha for each of the subscales are as follows: factor 1, α = .61, factor 2, α = .82, factor 3, α = .72, factor 4, α = .73, and factor 5, α = .65.

Adequacy of Financial Resources (AFR). The AFR is a subscale of Lehman's Quality of Life Interview (QOLI; Lehman, 1988). The QOLI is a 143 items self-report interview that assesses objective and subjective life domains associated with quality of life indicators (Lehman, 1988). The AFR subscale is an 8 item self-report instrument that assesses the adequacy of finances in different areas such as, food, clothing, rent, medical needs, transportation, social activities, and repayment of personal debts. Responses are either yes or no and based on the last 2 months. The QOLI was initially tested across three different populations of chronically mentally ill (N=469) and contains eight subscales including finances. Internal consistency, using Cronbach's alpha, of the subscales range from .68 to .85 (Goodman, Hull, Terkelsen, Smith, & Anthony, 1997). Test re-test reliability correlations using pearson correlation coefficient were significant and ranged from .41 to .95, with the subscale, finances = .77 (Lehman, 1988). Construct validity of the instrument was determined by examining intercorrelations of objective and subjective measures of quality of life within each domain; correlations with domain specific quality of life measures, demographic variables, and general life satisfaction; and correlations with general life satisfaction and psychiatric symptoms (Lehman, 1988). The subscales were all significant at the $\rho \leq .0001$, with the subscale, finances = .40 (Lehman, 1988). Factor analysis of the eight subscales was done. Two significant factors that accounted for 61% of the variance were identified, instrumental and affiliative (Goodman, et al., 1997). The subscale finances loaded on factor 1, instrumental at a .06 and on factor 2, affiliative at a .59 (Goodman, et al., 1997). Interestingly, the affiliative factor reflected the “quality of the person’s interpersonal relationships and leisure activities” (Goodman, et al., 1997, p. 579). It is suggested that adequacy of finances will play a factor in subjective experience of recovery. The Crohnbach’s alpha of this instrument for this study was α = .79

Living Independence Scale. The living independence scale is a 13-item subscale of the Social Functioning Scale (SFS; Birchwood, Smith, Cochrane, Wetton, & Copestake, 1990). The SFS was developed to identify strengths and weaknesses of individuals with schizophrenia as well as assist in developing therapeutic treatment interventions and goals (Birchwood, et al., 1990). The total scale is made up of seven subscales that assess social engagement/withdrawal, interpersonal behavior, prosocial activity, recreation, independence competence, independence performance, and employment. The SFS differentiates lack of competence or inability to complete a task with lack of performance, which refers to lack of use of an available skill (Birchwood, et al., 1990). The independence competence subscale asks questions regarding ability to wash clothes, access public transportation, make purchases and budget money. Response choices include “able”, “able with help”, “need help” “unsure”.

The reliability of the full scale is α = .80 and for the independence competence scale α = .87 (Birchwood, et al., 1990). Inter-rater reliability for the full scale is .94 and for independence competence scale .69 (Birchwood, et al., 1990). Internal consistency is demonstrated by item total correlation with mean item total correlation for full scale =.71 and for independence competence subscale = .55 (Birchwood, et al., 1990). Construct validity was determined using factor analysis, “one single factor was extracted with an eigenvalue of 3.96 accounting got 57% of the variance” (Birchwood, et al., 1990, p. 856). The correlation between subscales was high and uniform ranging from .69-.79 (Birchwood, et al., 1990). Criterion validity was determined by comparing the SFS scores with positive and negative symptoms of schizophrenia; “the criterion groups were strongly differentiated and SFS scores correlated with the presence of both negative (r = -.44) and positive (r = -.46) symptoms” (Birchwood, et al., 1990, p. 858). The Crohnbach’s alpha for this study was α = .47, which is low and indicates weak reliability.

Modified Colorado Symptom Index (MCSI). This is a 14 item self-report that measures psychological symptoms (Conrad, et al., 2001) and was designed to be a brief self-report. The MCSI assesses psychiatric symptoms such as hostility, paranoid ideation, psychosis, depression and anxiety with responses ranging from not at all, once during the month, several times during the month, several times a week, at least every day. Internal consistency for the MCSI using Cronhach’s alphas ranged from .87 to .92 with an overall alpha of .90 (Conrad et al., 2001). Test-retest intraclass correlation coefficients ranged from .64 to .93 with an overall of .79 for the pooled dataset (Conrad et al., 2001, p. 146). Content validity was determined by comparing the MCSI with the Brief Symptom Inventory (BSI; Derogatis, 1993) and the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962) both of which are frequently used measures to assess psychological symptoms or distress in individuals however both take longer to administer (Conrad, et al., 2001). The MCSI overlapped with the BSI and BRPS on six facets: psychological symptoms, hostility, paranoid ideation, psychosis, depression, anxiety and conceptual disorganization (Conrad, et al., 2001). One item, “feeling that your behavior is strange”, did not fit conceptually with either the BSI or BPRS however had high item-total correlation (Conrad, et al., 2001). Using a Rotated Structure Matrix identified items loaded on one of two major factors. The first factor describes depression/anxiety and the second describes more severe symptoms such as paranoid psychosis (Conrad, et al., 2001). The one item, “feeling that your behavior is strange", loaded equally on both factors. The two dimensions are moderately correlated (r = .47) with the first factor accounting for 38.4% of the total variance and the second factor accounting for an additional 8.8% of the variance (Conrad, et al., 2001). The construct validation analyses were all statistically significant beyond p < .01 (one-tailed) including the correlation of the MCSI with the BSI of .62 (Conrad, et al., 2001). The Crohnbach"s alpha for this study was α = .87.

Sense of Mattering. The Sense of Mattering scale (Elliot et al., 2004) is a 24 item measure that assesses interpersonal mattering in three areas: awareness, importance, and reliance. Awareness is the knowledge that one is known and acknowledged. If one is ignored or feels like a "non-person" (Elliot, et al., 2004, p. 340) then a strong message that one does not matter is received. Importance is related to the concept of social support. By receiving the support one needs from others, one can feel important to that person, that one matters. Reliance speaks to the bidirectional flow of a relationship, realizing others look to us for satisfaction of their needs and wants (Elliot, et al., 2004). Responses range from "strongly agree" to "strongly disagree" with scores of 1 to 5 assigned. A score of 5 indicates the greatest degree of mattering and a score of 1 indicates the least degree of mattering.

Confirmatory factor analysis identified a three-factor model for mattering: awareness, importance, and reliance as distinct factors (Elliot, et al., 2004). Discriminant validity was determined by performing confirmatory factor analysis using the parameters of the measurement model and comparing the factors of mattering with latent constructs (Elliot, et al., 2004). All three factors had significant positive correlations with perceived social support and self-esteem while significant negative correlations were found with meaninglessness and normlessness (Elliot, et al., 2004). Three sample data sets were used to determine construct validity by performing confirmatory factor analysis within the measurement model parameter (Elliot, et al., 2004). Cronbach's alpha for each of the components are as follows: awareness coefficients range from .31 to .75 with a median of .69; importance coefficients range from .41 to .76 with a median of .59; and reliance ranges from .52 to .77 with a median of .72 indicating each item reflects a "distinct facet of the mattering components" (Elliot et al., 2004, p. 352). The Cronbach alpha's for internal consistency for each component are as follow: awareness range from .82 to .87; importance range from .79 to .86; Reliance range from .83 to .87 while the Cronbach alpha for the full mattering index ranges from .89 to .92 (Elliot, et al., 2004). The Cronbach alpha for the subscales of the current study are as follows; Reliance α = .87, Awareness α = .78, Importance α = .86.

The Stigma Scale. The Stigma Scale (King, et al., 2007) is a 28 item scale with responses ranging from 1 "strongly disagree" to 5 "strongly agree". It includes three subscales which assess discrimination, disclosure, and positive aspects of mental illness. The discrimination subscale focuses on the perceived hostility and prejudiced attitudes experienced by others while the disclosure subscale focuses on perceived stigma once others are aware of one's mental illness. The positive aspects subscale assesses development of empathy and understanding towards others because of one's own experience with mental illness.

Test-retest reliability of each statement was determined using k coefficient and ranged from above .4 to .71 (King et al., 2007). Factor analysis yielded three factors. The first factor, discrimination, made up 44% of the variance while the second factor, disclosure, made up 16% of the variance (King et al., 2007). Finally the third factor, positive aspects of mental illness made up 12% of the variance (King, et al., 2007). Internal consistency determined by Cronbach's alpha for the entire scale was .87 and for each subscale: discrimination α = .87, disclosure α = .85, positive aspects α = .64 (King et al., 2007). The Mean scores of each subscale are; discrimination=29.1 (s.d.=15.4), disclosure=24.7 (s.d.=8.0), positive aspects = 8.8 (s.d. = 2.8), and the mean score for the total Stigma Scale = 62.6 (s.d. = 15.4) indicating that each subscale is measuring different concepts of stigma (King et al., 2007). Concurrent validity was determined by comparing the Stigma Scale with the Self-Esteem Scale and significant negative correlations were found with the overall Stigma Scale and the subscales supporting the hypothesis that stigma has a negative effect on self-esteem (King, et al., 2007). The Cronbach's alpha for each of the subscales for the current study are as follows; discrimination α = .88, disclosure α = .69, positive aspects α = .59.

Stages of Change Questionnaire. This is a 32-item scale developed to measure the stages of change (McConnaughy et al., 1983) based on the Transtheoretical Model of Change posited by Prochaska and DiClemente (1982). Of the 32 items, eight items are identified to measure each of the four stages of change: Precontemplation, Contemplation, Action, and Maintenance. The responses are on a 5 point Likert scale from strongly disagree=1 to strongly agree=5. Scores on each of the subscales are totaled with the highest total score indicating the stage of change each subject is in. Internal consistency Coefficient Alpha for each scale is as follows: Precontemplation, .79, Contemplation, .84, Action, .84, Maintenance, .82 (McConnaughy, et al., 1983). The Mean and Standard deviation of each scale is as follows: Precontemplation 2.02 (s.d. = .666), Contemplation, 4.28 (s.d. = .518), Action, 3.91 (s.d. = .615), Maintenance, 3.66 (s.d. = .692). The results of the McConnaughy et al (1983) study were replicated with similar Pearson-Moment Correlation Coefficients, Means, and standard deviations for each scale (McConnaughy, DiClemente, Prochaska, & Velicer, 1989). The predictive validity of the Stages of Change Questionnaire has been reported in numerous studies, suggesting that identification of stage of change is predictive of retention in treatment (DiCLement & Hughes, 1990; Hendersen, Saules, & Galen, 2004; Nidecker, et al., 2008).

Napper et al. (2008) examined the convergent and discriminant validity of the Stages of Change Questionnaire with the Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES; Miller & Tonigan, 1996) and the Readiness to Change Questionnaire (RCQ; Rollnick, Heather, Gold, & Hall, 1992). Convergent validity was demonstrated for the "precontemplation stages of the Stages of Change Questionnaire and RCQ and the action stages of all three measures" (Napper, et al., 2008, p. 366). Discriminant validity was determined by assessing the amount of correlation between trait factors. Correlations between trait factors were nonsignificant and therefore indicate discriminant validity for the other traits. (Napper, et al., 2008). The Cronbach's alpha for the total instrument for this study was $\alpha = .74$.

Data Analysis

Data collected from the participants was entered into Predictive Analytic SoftWare (PASW) Statistic Data Editor 18. Preliminary analysis of the data was performed to describe the data and to determine adequacy of the data for the proposed analyses. The data was also examined to determine whether significant differences exist among demographic variables, such as gender, age, ethnicity (African American, Arabic, Asian, Caucasian, Latino, and Native American), and dependent variables. Crohnbach's alpha reliabilities were completed on instruments to determine reliability. The relationships between predictor and criterion variables was examined using Pearson's product moment correlations and an intercorrelations matrix was developed to identify significant relationships between variables. The data was tested for homogeneity of variance to determine if the assumption that variances of the population are equal was met. The Variance Inflation Factor (VIF) was performed to assess for multicollinearity among variables and the Durbin-Watson was used to assess first order serial correlations. Inferential statistics such as multivariate analysis, hierarchical regression, and multiple regressions were performed to determine if statistically significant differences or relationships exist between independent and dependent variables. The 95% confidence interval was used to determine significance of results. Missing data was excluded listwise so that only cases with valid variables were included in the analysis. Listwise deletion is the most common approach for dealing with data that is missing completely at random. Although this can reduce sample size it has the advantage of unbiased parameter estimates (Howell, 2009).

Data for the Structural Equation Model (SEM) was analyzed using Analysis of Moment Structures (AMOS). SEM is a combination of path analysis and factor analysis (Klem, 2000). Path analysis specifies causal relationships with observed variables while factor analysis deals with concepts but does not allow for causal relationships (Klem, 2000). Factor analysis deals with the measurement part of the model and identifies the relationships between latent variables to the observed variables (Klem, 2000). Latent variables are unmeasured variables or abstract concepts that are estimated by several measured variables from the data of which there are two types; exogenous and endogenous. Endogenous variables regress onto exogenous variables, similar to how dependent variables regress onto independent variables. Path analysis is the structural part of the model and identifies the direct and indirect effects of the exogenous and endogenous variables on each other. The exogenous variable in this model refers to the concept of sense of belonging. The endogenous variables refer to the author's conceptualization of recovery; responsibility for illness and support, positive identity, and hope and meaningfulness. The original model conceptualized by the author, included the endogenous variable of functional recovery with the following indicators; no domination by symptoms, level of symptoms as measured by the MCSI, psychiatric diagnosis, and adequacy of financial resources. This model, when entered into AMOS, was a fair fit. It was decided in order to improve the fit, the model was respecified and reestimated. The latent variable, functional recovery, was removed since theoretically it was not reflective of the sense of belonging concept. The revised model was entered with improved results and met the requirements of several good fit indices. The results of these analyses are presented in the following Chapter.

Chapter 4

Results

The data analyses of the proposed hypotheses are presented in this chapter. The purpose of this study was to identify if recovery occurs among individuals with SMI that participate in psychosocial rehabilitation programs known as clubhouses. Inter/intrapersonal variables were theorized as contributing to the development of recovery. In addition, readiness for change was examined to determine if acknowledgement and acceptance of one's illness influences the subjective experience of recovery.

Analysis of Demographic and Dependent Variables

A multivariate analysis of variance (MANOVA) was performed to determine if differences exist between demographic variables and the dependent variables, instead of performing multiple t-tests, to control for Type 1 Error. The following demographic variables were categorized and served as independent variables in the analyses: gender (1= male; female = 2), age (19-30 years = 1, 31-50 years = 2, over 50 years = 3), psychiatric diagnosis (mood and anxiety disorders=1, schizophrenia disorders=0), education (less than diploma = 1, diploma = 2, some college = 3, associate's degree or more = 4), housing (private residence = 1, Adult Foster Care (AFC), Semi-independent Placement Services (SIPS), and other = 2), and ethnicity (Caucasian = 1, African American = 2, Arabic, Asian, Latino, Native American = 3). The following variables served as the dependent variables: Recovery Assessment Scale (RAS), Adequacy of Finances (AFC), Living Independence (LI), Modified Colorado Symptom Index (MCSI), Sense of Mattering (SOM), Sense of Community (SOC), Stigma Scale (Stigma), Multidimensional Scale of Perceived Social Support (MSPSS) and the Stages of Change (Precontemplation, Contemplation, Action, Maintenance). The results of the 2x3x2x4x2x3

MANOVA revealed a significant main effect for gender, Wilks' Lamda= .521, *F* (12, 112) =2.45. *p* =.02. power = 89. A further review of the independent tests revealed that gender differed on the MSCI scale, with females (n(64), M = 26.00, SD = 9.63) reporting greater symptoms then males (n(75), M = 24.80, SD = 9.89). The difference between the means was not significant, *F* (1, 137) = .52, *p* = .47. Gender was controlled for only in subsequent tests involving the MSCI scale. No other significant interactions were found.

Descriptive Statistics of Measures

Table 2 displays the descriptive statistics for the measures used in this study. The instruments were scored as instructed. Reversed scored items were identified and recoded. The means, standard deviations, and range of the instruments are provided. The first two clubhouses were administered the Stages of Recovery Instrument (STORI; Anderson, et al., 2006) as the instrument to measure recovery. The instrument was found to be cumbersome to administer. Many of the participants found the statements redundant and were unable to distinguish the subtle differences meant to identify the different stages of recovery. The STORI was replaced with the Recovery Assessment Scale, after obtaining HIC approval to change instruments, and used with all the other clubhouses. No other changes were made in the data collection; therefore the information collected from the first two clubhouses was used in the final analysis. However, the number of participants that completed the RAS is less than the other instruments. The RAS has 5 subscales that each measure a conceptualized factor of the experience of recovery; Factor 1, personal confidence and hope; Factor 2, willingness to ask for help; Factor 3, goal and success orientation; Factor 4, reliance on others; Factor 5, no domination by symptoms. The total score of the RAS was used for the analysis, unless otherwise stated. Greater recovery is identified by a higher total score.

Stage of change is identified by the Stages of Change questionnaire. The total score of each stage was computed with the highest score indicative of the stage of change reported by the participant. The instruments measuring the inter/intrapersonal constructs consisted of sense of community (SOC), sense of mattering (SOM), perceived social support (MSPSS), and perceived stigma (Stigma Scale). The total scores were used for analysis with higher scores indicative of more positive experiences of the concept being measured. All instruments were positively scored with the exception of the Stigma Scale. A lower score indicated less perceived stigma, thus a negative correlation between stigma and recovery was anticipated. The total score of the Living Independence Scale was utilized to determine the degree of day to day living independence with higher scores indicating greater independence. Finally, the Adequacy of Financial Resources (AFR) scale measured the participants' assessment of sufficiency of finances. A higher total score indicated the participant experienced insufficient financial resources. A negative relationship with AFR and recovery was anticipated and indicates inadequate finances are correlated with lower recovery scores. The scores on the instruments from this sample are similar to those reported in other research studies. For example, the mean of the MSPSS total average score has been reported as 5.80 (Zimet, et al., 1988) and for this study the mean total average score is 5.97. The total RAS score has been reported as 165.27 in previous research (Pernice-Duca & Onaga, 2009) compared to 163.06 in this study. The Stigma Scale score was higher in this study (M = 77.46, SD = 17.06) compared to a previous study (M = 62.6, SD = 15.4; King et al., 2007) indicating this sample population reported comparatively more perceived stigma. Examination of skewness and kurtosis of the data revealed overall a normal and symmetrical distribution. However it is important to note a few exceptions. The Factor 1 of the RAS, personal confidence and hope, had a skewness value of 1.54 and a kurtosis value of 10.16 indicating positively skewed data with a leptokurtic distribution. The maintenance stage of change reflected a similar distribution, skewness = 3.18 and kurtosis = 27. 06. The AFR had a skewness value of 1.07 and a kurtosis value of .10 indicating that although the data was positively skewed it is a relatively normal distribution. The measure for independence of living (LI) had a skewness = -.78 and a kurtosis = 2.64.

Table 2

Mean, Standard Deviations, and Confidence Intervals of Dependent Measures

Variable	N	M	SD	Range
RAS	124	163.06	20 .22	116-205.0
Factor 1	124	4.11	0.72	2.56-8.44
Factor 2	124	4.07	0.74	1.67-5.00
Factor 3	124	4.20	0.56	2.50-5.00
Factor 4	124	4.14	0.59	2.00-5.00
Factor 5	124	3.40	0.84	2.00-5.00
AFR	138	9.72	2.10	7.00-16.00
LI	137	45.28	5.71	21.00-61.00
Precontemplation	143	2.44	0.71	1.00-4.40
Contemplation	143	3.97	0.49	2.29-5.00
Action	143	3.99	0.46	2.25-5.00
Maintenance	142	3.59	0.77	1.57-9.71
MSPSS	140	47.72	10 .22	13.00-65.00
SOM	140	86.70	12 .74	50.00-118.00
SOC	142	85.76	8.59	68.00-100.0
MCSI	141	25.34	9.78	11.00-52.00
STIGMA	139	77.46	17 .60	35.00-130.0

Ras=Recovery Assessment Scale, RAS Factor 1=personal confidence and hope, RAS Factor 2= willingness to ask for help, RAS Factor 3= goal and success orientation, RAS Factor 4= reliance on others, RAS Factor 5= no domination by symptoms, AFR=Adequacy of Financial Resources, LI=Living Independence, Precontemplation=Stage of Change, Precontemplation, Contemplation=Stage of Change, Contemplation, Action=Stage of Change-Action, Maintenance=Stage of Change Maintenance. MSPSS=Multidimensional Scale of Perceived Social Support, SOM=Sense of Mattering, SOC=Sense of Community, MCSI=Modified Colorado Symptom Index, STIGMA=Stigma Scale

Bivariate correlation analyses were performed to examine the relationship between recovery and the predictor variables and are provided in Table 3. The functional indicators of recovery, as defined as minimal interference by symptoms, and measured by the MCSI (*r* (141) = -.31, $p \leq .01$) and adequacy of financial resources, as measured by the AFR (*r* (138) = -.41, $p \leq .01$), were significant and negatively correlated with the subjective experience of recovery, as measured by the RAS. The functional indicator of recovery, living independence, as measured by LI (r (137) = -.12, $p = .20$) was not significant with the RAS or any of the other variables.

The outcome criteria, subjective experience of recovery was significantly correlated with perceived social support (r (140) = .37, $p \leq .01$), sense of mattering (r (140) =.53, $p \leq .01$), and sense of community (r (142) = .52, $p \leq .01$). Recovery was negatively correlated with stigma (r (139) = -.48, $p \leq .01$). The inter/intrapersonal variables had significant correlations in the expected direction. Perceived social support was positively correlated with sense of community ($r = .37$, $p < .01$) and sense of mattering ($r = .52$, $p < .01$), and negatively correlated with stigma ($r = -.17$, $p < .05$). Sense of community was positively correlated with sense of mattering ($r = .38$, $p < .05$). Sense of community was inversely related with stigma ($r = -.22$, $p < .01$), as was sense of mattering ($r = -.41$, $p < .01$).

Table 3

Intercorrelations for Measures of Recovery and Inter/Intrapersonal Factors

Measure	1	2	3	4	5	6	7	8	9	10	11	12
1. RAS	-											
2. AFR	-.41**	-										
3. LI	-.12	.02	-									
4. MSPSS	.37**	-.11	.01	-								
5. MCSI	-.31**	.20*	-.07	-.20*	-							
6. SOC	.52**	-.18*	.05	.37**	-.04	-						
7. SOM	.53**	-.13	-.01	.52**	-.28**	.38**	-					
8. Stigma	-.48**	.23**	-.00	-.17*	.47**	-.22**	-.41**	-				
9. Stage 1	-.00	-.06	-.15	.04	-.11	-.16	-.19*	.08	-			
10. Stage 2	.26**	.06	-.13	.23**	.16	.38**	.18*	-.02	-.07	-		
11. Stage 3	.45**	-.09	-.13	.29**	.02	.38**	.25**	-.11	-.05	.72**	-	
12. Stage 4	.04	.13	-.01	.01	.24**	.19*	-.00	-.20*	.09	.41**	.32**	-

RAS=Recovery Assessment scale; AFR=Adequacy of Financial Resources; LI=living Independence Scale; MSPSS=Multidimensional Scale of Perceived Social Support; SOC=Sense of Community; SOM=Sense of Mattering; Stigma=Stigma Scale; Stage 1 = Precontemplation Stage of Change; Stage 2 = Contemplation Stage of Change; Stage 3 = Action Stage of Change; Stage 4 = Maintenance Stage of Change. **$p < .01$ *$p < .05$

Hypothesis Testing:

In the following section, the hypotheses, outlined in Chapter 2, were investigated. Each hypothesis is outlined below along with the analysis and outcome.

Hypothesis$_{1.1}$: What is the relationship between functional and subjective indicators of recovery?

Functional indicators of recovery, as discussed in Chapter 1, were defined as the absence of symptoms, ability to live independently, and absence of hospitalizations in last 2 years. Measures of this construct include current symptomatology as measured by the MCSI, independent living as measured by LI, and the date of the last hospitalization. A majority of participants (93%) indicated that it had been more than 2 years since their last hospitalization; consequently it was not used as an indicator due to minimal variation among the sample. Subjective recovery was measured using the RAS which assesses the consumer's experiences and perception of the recovery process. Pearson *r* correlations were performed among the variables. The results of the Pearson *r*, shown in Table 4, indicate that the RAS has a significant negative correlation with the AFR and MCSI. This indicates that an adequacy of financial resources and a decrease in symptoms is related to a greater perception and experience of subjective recovery. In addition, a mild significance is revealed between symptomatology and adequacy of finances. This suggests that those reporting fewer symptoms also report adequate finances. Gender was included in the analysis because it was found to be significant with current symptoms in the MANOVA. However in this analysis, gender was not significant with current symptomatology (MCSI), $r = .04$, $p = .33$ but was significant with recovery (RAS), $r = .21$, $p = .01$.

Table 4

Mean, Standard Deviations, and Intercorrelations of Subjective and Functional Measures of Recovery.

N=117

Variable	M	SD	LI	AFR	MCSI	DX
Subjective						
RAS	163.1	20.2	-.13	$-.41^{**}$	$-.32^{**}$	$-.25^{**}$
Functional						
1. LI	45.6	5.4	-	.04	- .07	.09
2. AFR	9.7	2.0	-	-	$.19^{*}$	$.17^{*}$
3. MCSI	25.7	9.4	-	-	-	.11
4. DX	0.5	0.5	-	-	-	-

RAS=Recovery Assessment Scale, LI=Living Independent Scale, AFR=Adequacy of Finances, MCSI=Modified Colorado Symptom Index, DX=Axis 1 psychiatric diagnosis.

$*\rho < .05$. $**\rho < .01$.

To further examine the relationship between functional and subjective recovery a Multiple Regression Analysis was performed to identify the relationship between functional indicators of recovery, as measured by level of symptomatology (MCSI), psychiatric diagnosis, living independence scale (LI), adequacy of financial resources (AFR), Gender (1 = male, female = 2), and subjective recovery as measured by the RAS. Diagnostic classification was dichotomized (0=schizophrenia spectrum disorders, 1=Mood, Anxiety, and Other disorders). Gender, LI, AFR, and the MCS served as the predictor variables. The RAS, as a subjective indicator of recovery, served as the criterion. The results of the regression analysis are presented in Table 5.

Table 5

Regression Analysis Summary for Functional Measures of Recovery Predicting Subjective Recovery

Variable	B	SE B	β	t	ρ
LI	-0.44	0.31	-0.11	-1.44	.15
AFR	-3.18	0.80	-0.32	-3.99	.00
MCSI	-0.51	0.17	-0.24	-2.92	.00
Axis I	-8.64	3.24	-0.22	-2.67	.00
Gender	10.06	3.17	.25	3.17	.00

N=116, LI=Living Independent Scale, AFR=Adequacy of Finances, MCSI=Modified Colorado Symptom Index, Axis I=Psychiatric Diagnosis, Gender 1=Male, 2=female.

The results of the Multiple Regression was significant, R=.56, R^2=.32, adjusted R^2=.29, F (4, 115) =12.73, ρ=.000. Level of independence was not a significant predictor of recovery. Adequacy of financial resources, level of symptoms, psychiatric diagnosis, and gender were all significant predictors of subjective recovery, and accounted for 32% of the variance. It is not surprising to find that adequacy of financial resources and a decrease in severity of symptoms were predictive of recovery. This finding is congruent with the hypothesis. However, the finding that psychiatric diagnosis and gender are also predictive of subjective recovery is surprising and unexpected.

Hypothesis $_{1.2}$ Are their differences in subjective recovery across diagnostic classification when controlling for independent functioning?

Analysis of Covariance (ANCOVA) was used to examine the relationship between psychiatric diagnosis and subjective recovery, while controlling for living independence. It is theorized that independent functioning contributes to one's overall subjective experience of recovery and that individuals with SMI more often have compromised independence. Thus living independence was controlled for and added as a covariate. Diagnostic classification was dichotomized (0=schizophrenia spectrum disorders, 1=Mood, Anxiety, and Other disorders) and entered as the fixed factor. The RAS total score was entered as the dependent factor, and Living independence (LI) as the covariate. The mean RAS total score for Schizophrenia spectrum disorders was 168.05 (SD=19.57, n=58) and for Mood, Anxiety, and other disorders, M=158.83, (SD=20.34, n=60). The outcome of the ANCOVA indicates that while controlling for independent living, psychiatric diagnosis is predictive of recovery, F (1, 118) = 5. 79, *p* = .018. The results indicate that a difference does exist in subjective recovery across psychiatric diagnostic groups, even while controlling for living independence. In addition, schizophrenia has traditionally been viewed as the more severe debilitating diagnosis (Jobe & Harrow, 2005). However, in this sample those diagnosed with schizophrenia spectrum disorders rated experiencing greater recovery.

Hypothesis $_{2.1}$ Perceived social support, sense of mattering, sense of community, and a decrease in perceived stigma are predictive of greater recovery, as measured by the RAS, with sense of mattering accounting for the greatest variability in the criterion.

A hierarchical regression analysis was performed to examine the relationship between inter/intrapersonal variables (SOM, STIGMA, SOC, MSPSS) and subjective recovery (RAS) while controlling for psychiatric diagnosis and adequacy of finances. Descriptive statistics of the predictor variables and the RAS Total score are shown in Table 6. There is low multicollinearity between predictor variables.

Table 6

Mean, Standard Deviation, and Intercorrelations of Subjective Recovery and Inter/intrapersonal Factors

Variable	M	SD	AFR	Axis 1	SOM	STIGMA	SOC	MSPSS
RAS	163.04	20.32	-.41***	-.25***	.56***	-.50***	.51***	.38***
Predictors								
AFR	9.62	2.04	-	.17*	- .16*	.28**	- .17*	-.12
AXIS 1	0.51	0.50	-	-	- .13	.11	.02	-.10
SOM	87.56	12.96	-	-	-	- .42***	.42***	.55***
STIGMA	78.41	16.58	-	-	-	-	- .27**	- .23**
SOC	86.34	8.96	-	-	-	-	-	.40***
MSPSS	47.71	10.64	-	-	-	-	-	-

RAS=Recovery Assessment Scale, AFR= Adequacy of Financial Resources, Axis I= Psychiatric Diagnosis, SOM= Sense of Mattering, Stigma=Stigma Scale, SOC= Sense of Community, MSPSS=Multidimensional Perceived Social Support.

Results of the hierarchical regression analysis are shown in Table 7. AFR and Axis I were entered first as control variables and then the predictor variables, SOM, Stigma, SOC, and MSPSS were entered. Results indicate that both models are significant and that all predictor variables except MSPSS contributed significantly to recovery.

Table 7

Hierarchical Regression Analysis of Inter/Intrapersonal Predicting Variables of Subjective Recovery.

Step and Predictor Variable	*B*	SE*B*	β	R^2	ΔR^2
Model 1				.19	$.18^{***}$
AFR	-3.72	.85	$-.37^{***}$		
Axis 1	-7.34	3.46	-.18		
Model 2				.55	$.53^{***}$
AFR	-2.22	.68	$-.22^{**}$		
Axis 1	-6.05	2.68	-.18		
SOM	.45	.13	$.29^{**}$		
Stigma	-.27	.09	$- .22^{**}$		
SOC	.65	.17	$.29^{***}$		
MSPSS	.02	.15	.01		

AFR=Adequacy of Financial Resources, Axis I= psychiatric diagnosis, SOM=Sense of Mattering, Stigma=Stigma Scale, SOC= Sense of Community, MSPSS=Multidimensional Perceived Social Support. $^{**}\rho \leq .01$, $^{***}\rho \leq .000$

In the first model, adequacy of finances and psychiatric diagnosis accounted for approximately 19% of the variance in recovery. The addition of SOM, Stigma, and SOC increased the variance to 53% in predicting recovery. Sense of mattering did not account for the greatest variance as predicted, however sense of community did and accounted for approximately 6% (Part correlations = .25) while sense of mattering contributed approximately 5% (Part correlations = .22).

Hypothesis$_{3.1}$: Individuals in later stage of change (action or maintenance) will report a greater sense of subjective recovery while individuals in an early stage of change (precontemplation or contemplation) will report less subjective recovery.

A multiple regression analysis was used to determine if stage of change was predictive of subjective sense of recovery. Descriptive statistics of the Recovery Score and Stages of Change can be found in Table 8.

Table 8

Means, Standard Deviations, and Intercorrelations of Stages of Change and Recovery Assessment Scale

Variable	M	SD	Stage 1	Stage 2	Stage 3	Stage 4
RAS	163.21	20.24	0.15	.26***	.44***	.04
Stages of Change						
Stage 1	2.38	0.68	-	-.17*	-.12	.01
Stage 2	3.98	0.50	-	-	.72***	.36***
Stage 3	4.00	0.48	-	-	-	.28**
Stage 4	3.61	0.79	-	-	-	-

N = 123; *p<.05, **p<.01, ***p<.000; RAS=Recovery Assessment Scale, Stage 1=Precontemplation, Stage 2=Contemplation, Stage 3=Action, Stage 4=Maintenance

The stages of contemplation and action are significantly correlated with the RAS total score. However, the stage of contemplation is highly correlated with the stage of action which suggests that the stages maybe overlapping and measuring the same construct, and not two distinct stages. Results of the multiple regression analysis are in Table 9. Only the stage of Action was found to be statistically significant in predicting a subjective sense of recovery, R = .46, R^2 = .21, F (4, 123) = 7.81, p = .000, and accounted for 21% of the variance in predicting subjective recovery. This suggests that individuals who are actively working on their mental health recovery are more likely to perceive a sense of recovery.

Table 9

Regression Analysis Summary for Stage of Change Predictive of Subjective Recovery.

Variable	*B*	SE*B*	β	*t*	*p*
Precontemplation	1.89	2.49	.06	.76	.45
Contemplation	- 3.59	4.96	- .09	- .72	.47
Action	22.61	5.03	.53	4.50	.00
Maintenance	- 1.99	2.26	- .08	- .88	.38

R=.46, R^2= .21 (N=123, ρ <.000)

Hypothesis $H_{3.2}$: Individuals who are more engaged in the clubhouse will experience a later stage of change (action or maintenance) and a greater sense of inter/intrapersonal factors while individuals who are less engaged in the clubhouse will experience an early stage of change (precontemplation or contemplation) and less inter/intrapersonal factors..

A multivariate regression analysis was performed using the continuous predictor variables years at the clubhouse (M= 5.13, SD=5.61) and clubhouse engagement. Clubhouse engagement was defined as; number of hours spent per day at the clubhouse multiplied by number of days per week spent at the clubhouse to obtain a total score, (M=21.35, SD=9.37). Criterion variables include the stages of change; precontemplation, contemplation, maintenance, and action, Stigma, SOC, SOM, and MSPSS. The number of years spent at the clubhouse was not statistically significant in predicting stage of change, F (4, 134) = 0.55, $p > F$ = 0.702). The model found clubhouse engagement was significantly predictive of all four stages of change, F (4, 134) = 3.34, $p > F$ = 0.012. This suggests that clubhouse engagement is significant in relation to the stages of change; however it is not clear what the relationship is. The precontemplation stage of change contributed approximately 5% to the variance of recovery (R^2 = .05), while the contemplation stage contributed approximately 4% (R^2 = 0.39), maintenance stage contributed approximately 2% ($R^2 = .02$), and the action stage contributed approximately 4% to the variance of recovery ($R^2 = .04$). Clubhouse engagement did not predict stigma, sense of mattering, sense of community, or perceived social support, F (4, 130) = 1.09, $p > F$ = 0.36. Years at the clubhouse was not significant in predicting stigma, sense of mattering, sense of community, or perceived social support, F (4, 130) = 0.45, $p > F$ = .77.

These results did not concur with the proposed hypothesis. It appears that number of years is not significant in predicting stage of change or development of inter/intrapersonal factors. Surprisingly, clubhouse engagement was not predictive of development of inter/intrapersonal factors, however it was not examined if clubhouse engagement had any effect on interpersonal relationships outside the clubhouse. Clubhouse engagement was significant for predicting stage of change and suggests that spending time at the clubhouse may act as a vehicle to promote necessary skills and insight in the acceptance and responsibility of managing one's illness.

Hypothesis $H_{4.1}$: A negative relationship will exist between inter/intrapersonal factors and clubhouse participation with perceived stigma.

A multiple regression analysis was done to analyze the effect clubhouse engagement, years at the clubhouse, and inter/intrapersonal factors on perceived stigma. Clubhouse engagement was defined as the number of hours per day multiplied by the number of days per week. Table 10 presents the descriptive statistics. Significant correlations between clubhouse engagement, years at the same clubhouse and stigma were not found. Significant negative correlations between SOM, SOC, and MSPSS and stigma did occur.

Table 10

Means, Standard Deviations, and Intercorrelations of Clubhouse Engagement, Inter/intrapersonal Factors and Perceived Stigma.

Variable	M	SD	1	2	3	4	5
Stigma	77.34	17.34	-.08	-.07	$-.40^{***}$	$-.23^{**}$	$-.17^{*}$
Predictors							
1. Club Engage	21.44	9.38	-	.07	-.03	.19	.09
2. Yrs at Club	5.10	5.59	-	-	.01	-.03	.07
3. SOM	86.76	12.96	-	-	-	$.40^{***}$	$.52^{***}$
4. SOC	85.97	8.59	-	-	-	-	$.39^{***}$
5. MSPSS	47.58	10.36	-	-	-	-	-

N=133, $^{***}\rho<.000$, $^{**}\rho<.01$, $^{*}\rho<.05$Club Engage=Clubhouse Engagement (# of hours/day X # of days/wk), Yrs at Club (# of years at the clubhouse), SOM=Sense of Mattering, SOC=Sense of Community, MSPSS=Multidimensional Scale of Perceived Social Support.

Clubhouse engagement, years at the clubhouse, sense of community, sense of mattering, and perceived social support were entered as predictor variables to the criterion variable, stigma. Table 11 shows the outcome of the multiple regression analysis. The model was significant, R= .43, R^{2}= .19, F (5, 133) =5.753, ρ = .000. Only sense of mattering was predictive of decreasing perceived stigma and accounted for 19% of the variance.

Table 11

Regression Analysis of Inter/intrapersonal Factors and Clubhouse Engagement on Stigma

Variable	*B*	SE*B*	β	*t*	ρ
Club Engage	-.17	.15	-.09	-1.10	.27
Yrs at Club	-.22	.25	-.07	- .87	.39
SOM	-.56	.13	-.42	-4.27	$.00^{***}$
SOC	-.18	.18	-.09	-.99	.32
MSPSS	.15	.16	.09	.95	.34

$^{***}\rho<.000$ Club Engage=Clubhouse Engagement (# of hours/day X # of days/wk), Yrs at Club= number of years at the Clubhouse, SOM=Sense of Mattering, SOC=Sense of Community, MSPSS=Multidimensional Scale of Perceived Social Support.

The number of years as a member of the clubhouse and the amount of time spent at the clubhouse was not significant. In addition, perceived social support and sense of community did not contribute to the model. It appears that developing a sense of mattering and belonging, in addition to feelings of importance and recognition, reduces the experience of perceived stigma. Stigma is known to have negative effects on self-concept and self-esteem (Fung, et al., 2007; Perlick, et al., 2001; Verhaeghe, et al., 2008) while experiencing a sense of mattering provides the perception that one is important and valued (Dixon & Tucker, 2008). Intuitively it makes sense that if one feels they matter, the negative effects of stigma would be minimized.

Structural Equation Model

Hypotheses$_{5.1}$. Does sense of belonging form the foundation from which concepts of recovery emerges?

The following model is based on the theorized theoretical framework of the *Belongingness Hypothesis* which suggests that a sense of belonging is a basic human motivation important for psychological wellness (Baumeister & Leary, 1995). The construct, sense of belonging, is theorized to predict the conceptualization of recovery, as defined in this study; the presence of positive identity, hope and meaningfulness, and responsibility for illness and support. Relationships were examined between Positive Identity, a latent variable with two indicators (stigma, measured by Stigma Scale and sense of mattering, measured by SOM), Hope and Meaningfulness, a latent variable with two indicators (sense of community, measured by SOC, and personal confidence and hope, measured by RAS Factor 1), and Responsibility for Illness and Support, a latent variable with four indicators (willingness to ask for help, measured by RAS Factor 2, goal and success orientation, measured by RAS Factor 3, perceived social support, measured by MSPSS, and reliance on others, measured by RAS Factor 4). Figure 12 identifies the proposed model. The model is a recursive model and was examined for goodness of fit to determine if it was acceptable. The chi-square test is most commonly reported to determine goodness of fit and indicates the size of discrepancies between "the relationships implied by the model match and the observed relationships" (Klem, 2000, p. 242). The chi-square for this model was (X^2 = 29.025, p = .034) indicating a fair fit. However, the use of chi-square to determine goodness of fit is problematic because it is sensitive to sample size and typically requires a sample size of over 200 (Klem, 2000). For this reason, additional indices for goodness of fit were computed. The root mean square of error of approximation (RMSEA) was examined. A value below .08 indicates an acceptable model (McDonald & Ho, 2002). The RMSEA for this model = .071. The additional global fit indices recommended to use to evaluate the model are presented in Table 12 and include; Normed Fit Index (NFI), Relative Fit Index (RFI), Incremental Fit Index (IFI), Tucker-Lewis Index (TLI), and Comparative Fit Index (CFI). A value above .9 for any of these indices is considered an acceptable fit (McDonald & Ho, 2002). The indices indicate a good fit model which indicates the proposed model is appropriate for the data.

Table 12

Global Fit Indices for Experimental, Saturated, and Independence Models

Model	NFI Delta 1	RFI Rho 1	IFI Delta 2	TLI Rho 2	CFI
Default Model	.92	.83	.96	.92	.96
Saturated Model	1.00		1.00		1.00
Independence Model	.00	.00	.00	.00	.00

NFI= Normative Fit Index, RFI = Relative Fit Index, IFI = Incremental Fit Index, TLI= Tucker-Lewis Index, CFI = Comparative Fit Index

The data was entered into AMOS to obtain parameter estimates, "that is, estimates of the coefficients representing direct effects and of the coefficients representing variances and covariances of measured variables" (Klem, 2000, p. 234). In the model, the parameter estimates beside the line represent the magnitude of the effects while the numbers at the tail of the arrow represent variances of errors (Klem, 2000, p. 236). Table 13 provides the regression weights for the unstandardized and standardized estimates, standard error, and critical ratios for the paths of the model. In SEM path analysis it is assumed that "the variables are perfectly measured, the coefficients linking pairs of measured and unmeasured variables must be fixed at 1" (Klem, 2000), thus one path per latent variable was fixed at 1. The standardized estimate, also known as beta coefficient, is used in multiple regression equations on variables that have been standardized so their variance is equal to 1. This is done to determine the effect of the independent variables on the dependent variables (Klem, 2000).

Analysis of the model indicates that the direct paths were significant in that Positive Identity predicts a decrease in stigma (C. R. = -4.37, *p* < .000) and a greater sense of mattering. Hope and Meaningfulness predicts sense of community and personal confidence and hope (C. R. = 5.89, *p* < .000); Responsibility for Illness and Support predicts perceived social support (C.R. = 5.06. *p* < .000), reliance on others (C. R. = 5.88, *p* < .000), willingness to ask for help, and goal and success orientation (C. R. = 5.75, *p* < .000). Sense of Belonging was predictive of all three constructs of recovery, Positive Identity, Hope and Meaningfulness (C. R. = 6.44, *p* < .000), and Responsibility for Illness and Support (C. R. = 5.16, *p* < .000).

Table 13

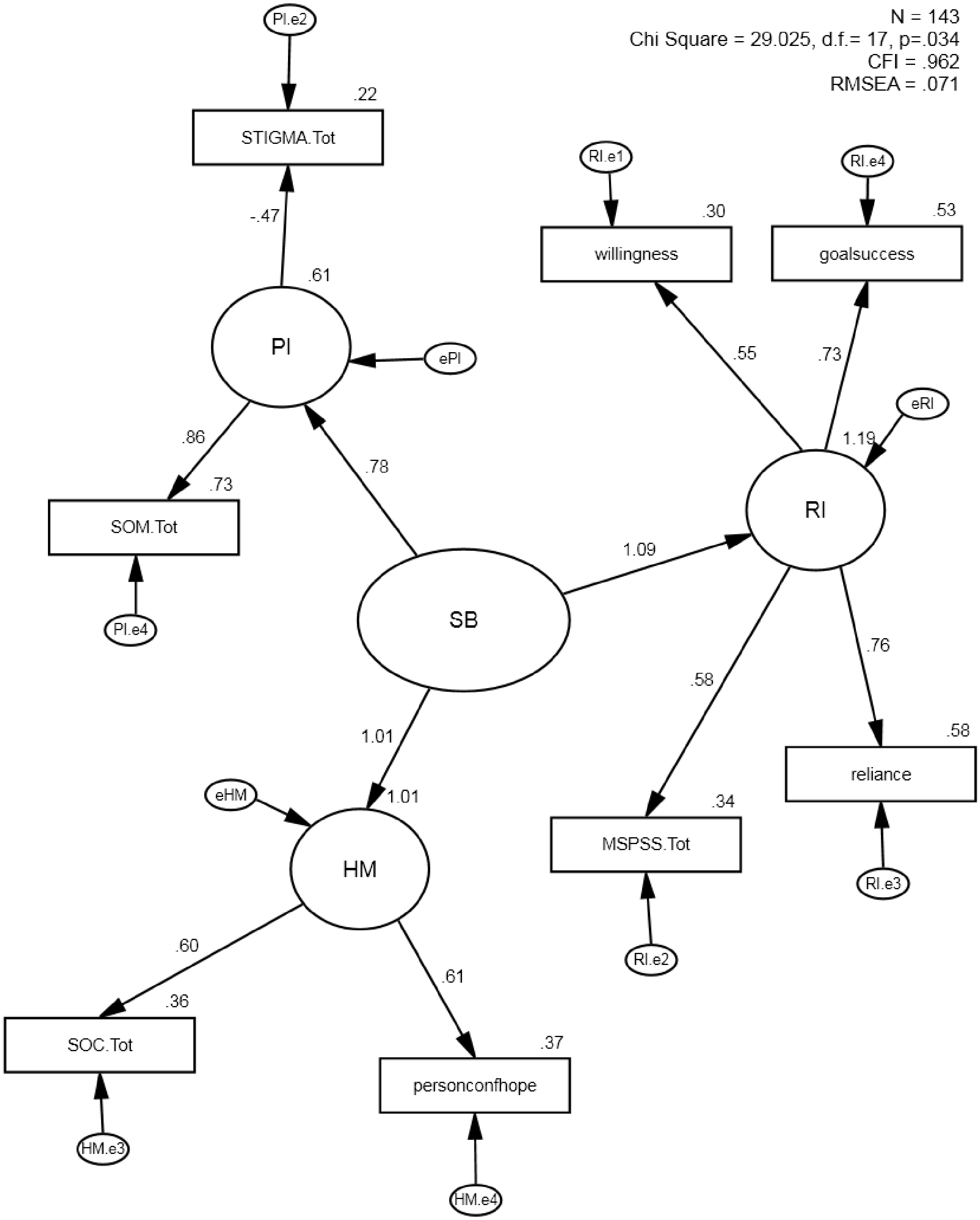
Regression Weights in Paths between Predictor and Criterion Variables

	Unstand Est	S. E.	C. R.	p.	Standard Est.
RI ← SB	.05	.01	5.16	***	1.09
PI ← SB	1.00				.78
HM ← SB	.61	.09	6.44	***	1.00
Stigma ← PI	-.73	.17	- 4.37	***	-.47
SOC ← HM	1.00				.60
MSPSS ← RI	14.84	2.93	5.06	***	.58
Reliance ← RI	1.11	.19	5.88	***	.76
Willingness ← RI	1.00				.55
Perconhop ← HM	.08	.01	5.89	***	.61
SOM ← PI	1.00				.86
Goalsuc ← RI	1.02	.18	5.75	***	.73

Unstand. Est = Unstandardized Estimate, S.E. = Standard Error, C. R. = Critical Ratios, SB = sense of belonging, RI = Responsibility for Illness, PI = Personal Identity, HM = Hope and Meaningfulness, Stigma = Stigma Scale, SOC = Sense of Community, MSPSS = Perceived Social Support, Reliance = RAS Factor 4, reliance on others, Willingness = RAS Factor 2. willingness to ask for help, Perconhop = RAS Factor1 personal confidence and hope, SOM = sense of mattering, Goalsuc = RAS Factor 3 = goal and success orientation. $^{***}P < .000$.

Figure 3

Structural Equation Model of Sense of Belonging and Recovery



Chapter 5

Discussion

Over the last few decades the belief that recovery from a SMI is possible is slowly gaining credibility and influencing psychiatric practice and policy. This study was designed to gain a better understanding of the recovery phenomenon among individuals with SMI as well as the inter/intrapersonal aspects of social support that may contribute to the subjective experience of recovery. Readiness for change was explored as a contributing factor in the process of recovery. The role of attendance and participation by individuals with SMI at a clubhouse, a psychosocial rehabilitation program, was explored to identify the impact on recovery. Ten clubhouses in the state of Michigan contributed to the study, with a total of 143 members of the clubhouses voluntarily participating. Data were collected via self-report interview in order to gain insight and understanding of recovery from the perspective of individuals with SMI. Instruments were chosen based on the ability to adequately measure the constructs theorized to contribute to the subjective experience of recovery. The theoretical framework for this study came from the belongingness hypothesis. It was theorized that the sense of mattering is a basic human motivation that is crucial to overall psychological wellness and functioning. This study was able to identify that recovery from mental illness does in fact occur. Individuals with SMI experiencing recovery reported a greater degree of personal confidence and hope, an acceptance of their illness and a willingness to ask and accept help from others, a focus towards achieving goals and success, and minimal interference by symptoms.

The following questions were asked: (a) Do individuals with SMI that attend clubhouses experience subjective recovery and are there any differences across diagnostic classification? (b) Are inter/intrapersonal factors - perceived social support, sense of mattering, sense of community, and perceived stigma, predictive of recovery? (c) Do individuals with SMI in a later stage of change report a greater sense of recovery? Do individuals with SMI that are more engaged in the clubhouse report a later stage of change and a greater sense of inter/intrapersonal factors? (d) Does clubhouse participation and inter/intrapersonal factors decrease perceived stigma? Finally, (e) Does sense of belonging form the foundation from which concepts of recovery emerge? Multivariate analyses were performed, including hierarchical regression, MANOVA, ANCOVA, multivariate regression analysis, and structural equation modeling to test the proposed hypotheses. The sample population characteristics of this study were similar to those reported in like studies (Pernice-Duca, 2010; Pernice-Duca & Onaga, 2009). The instruments used were considered reliable and contained sufficient internal validity. The data met the requirements for homogeneity of variance and absence of multicollinearity. The results of the proposed hypotheses are discussed in this chapter.

Functional Indicators and Subjective Recovery

This study was able to substantiate what many studies have stated, that recovery from serious mental illness does in fact occur. The subjective experience of recovery was established using the Recovery Assessment Scale (Corrigan, et al., 1999) with higher scores indicating a greater degree of recovery ($M= 162.84$, $SD = 20.19$). It was hypothesized that functional indicators of recovery would be predictive of, and therefore substantiate, subjective experience of recovery. Functional indicators of recovery, such as the ability to live and function with minimal assistance, adequate financial resources, and minimal interference by symptoms, were examined using multiple regression analysis. The ability to function independently was not significant with recovery, or any other variables in the study. However, the instrument used to measure independent functioning, LI, had low reliability ($\alpha = .47$) and may not have been an adequate measure. The global assessment of functioning (GAF) has been used in other studies to determine level of functioning and has been found to be predictive of overall functioning (Tsang, Fung, & Chung, 2010). The GAF appears to be a more reliable indicator of functioning and should be used in place of the measure used in this study. Adequacy of finances and severity of symptoms were predictive of recovery. Symptom remission has been identified as a factor in increasing recovery rates (San, et al., 2007; Silverstein & Bellack, 2008). Also, it has been noted that having sufficient financial resources to "get by" is important in the recovery process (Schön, Denhov, & Topor, 2009).

Recovery across diagnostic classification was examined. Initial comparison identified a statistically significant difference between the schizophrenia disorder group and the mood disorder group with the schizophrenia group scoring higher mean recovery scores, [Schizophrenia spectrum disorder, (n = 58, M = 168.05), Mood, Anxiety, and other disorders, (n = 61, M = 158.72)]. The difference in recovery scores was not attributable to severity of symptoms since a difference in severity of symptoms across psychiatric diagnostic group was not statistically significant [(Schizophrenia spectrum disorder, n = 69, M = 23.78; Mood, Anxiety, and other disorders, n = 67, M = 26.52; $F(1, 134) = 2.71$, $p = .10$)]. An ANCOVA analysis revealed psychiatric diagnosis was predictive of recovery, even after controlling for level of independence and adequacy of finances. Interestingly, the schizophrenia spectrum disorder group rated a higher subjective recovery experience compared to the mood and anxiety disorder group. Schizophrenia is typically considered the more severe debilitating disorder (Jobe & Harrow, 2005). Although few studies have examined recovery scores across psychiatric diagnosis, Dickerson et al. (2001) compared individuals with schizophrenia to individuals with Bipolar 1 Disorder and found that minimal discrepancy existed in cognitive and social functioning indicating individuals with either diagnosis experience similarity in functioning and impairments. Gender also was found to be significant in predicting recovery. Gender was included in the model since gender was significant with level of symptoms, as measured by the MCSI. Women rated slightly more severity in symptoms than men, [(Females = n(64), M = 26.00, SD = 9.63); Males = (n(75), M = 24.80, SD = 9.89)]. Gender contributed approximately 6% to the variance (part correlation = .25). Gender differences in mental illness have been found in previous research. Women tend to experience depression more frequently than men and the course of the illness tends to be more chronic (Essau, Lewinsohn, Seeley, & Sasagawa, 2010). Research on gender differences in schizophrenia has revealed that women tend to experience less severity in symptoms, respond better to antipsychotic medications, and report improved quality of life compared to men (Usall, Suarez, & Haro, 2007).

Inter/intrapersonal Factors in Recovery

It was hypothesized that social process variables play an essential role in achieving recovery. This is based on the notion that we, as human beings, need social interaction and social contacts to survive. However, social interaction is not enough to promote wellness; a sense of belonging or mattering to others is crucial in achieving mental health and stability (Baumeister & Leary, 1995). In fact, studies have found that the “absence of close or confiding relationships is associated with greater risk of relapse or nonremission among individuals with depression” (Perlick et al., 2001, p.1631). The inter/intrapersonal variables of perceived social support, sense of community, and sense of mattering were examined to determine if they were significant in predicting recovery. A hierarchical regression analysis was performed to determine if any of these variables were predictive of recovery. Adequacy of financial resources and psychiatric diagnosis were controlled for, given that both variables were identified as significant in predicting recovery. In addition, it was theorized that perceived stigma would have a negative impact on the subjective experience of recovery and was included in the hierarchical regression analysis. As posited, sense of community, sense of mattering and perceived stigma were predictive of recovery. The instrument measuring perceived social support was not significant in predicting recovery. This may be due to the instrument, the Multidimensional Perceived Social Support Scale (MSPSS). Only two of the subscales were used, Friends and Family, while the Others subscale was removed. The Others subscale was not used because the statements were similar in content compared to the other instruments, i. e. sense of mattering and sense of community. However, this may have affected the instruments construct validity and thus weakened its psychometric properties. Stigma was in fact inversely correlated with recovery. Thus, participants that experienced stigma were less likely to report a sense of subjective recovery. Adequacy of finances was significant in the model; however, psychiatric diagnosis was not. A decrease in perceived stigma along with adequacy of finances, sense of community and sense of mattering were all statistically significant in predicting recovery and accounted for 53% of the variance.

The clubhouse environment provides an intentional environment that creates a sense of community and a place to belong. The ability to go to places where one can meet individuals in like situations has been identified as very helpful in achieving recovery by providing the opportunity to “rebuild one’s shattered social network, offering contact with others in the same situation” (Schön, et al., 2009, p. 343). The most frequent anecdotal comments made by the participants, referred to the clubhouse as being important because “it gets me out of the house”, “keeps me from isolating”, “I make friends here”. In addition, an overwhelming number of participants commented that if there was no clubhouse to go to, most likely they “would be institutionalized" or "stay at home and not go anywhere." The intrapersonal experiences that occur within that environment create the sense of belonging, of mattering to others. The process of interpersonal relationships must include the intrapersonal realization that one matters in order to actually experience the sense of mattering (Rayle, 2006), which in turn provides "individuals with a sense of social meaning and relatedness" (Marshall, 2001, p. 475). The opportunity to have a place to go and feel a part of something promotes the relationship building that then ensues. Attending and participating in the clubhouse provides an opportunity for consumers to be recognized, acknowledged, and to feel a sense of importance.

Stage of Change and Recovery

Recovery has been identified as a process that changes over time and that one must be active in that process (Schön, 2009). The stages of change were examined to determine if any predicted recovery. It was hypothesized that the later stages of change, action and maintenance would be most predictive of recovery. Results of the multiple regression analysis indicate the contemplation and action stages were positively correlated with the RAS but only the stage of action was found to be predictive of recovery. The action stage of change is when most of the work gets done. Individuals in this stage are actively modifying behavior and concentrating on eliminating relapse. Over 80% of participants acknowledged coming to the clubhouse was something they were doing voluntarily. The fact that most consumers were choosing to attend indicates an active role is being taken to make the necessary changes to achieve a more meaningful life as well as a sense of identity. It appears, in addition to symptom remission and adequate financial resources that accepting one's illness, making necessary life adjustments and rebuilding meaningful social relationships play important roles in the subjective experience of recovery. Interestingly, the maintenance stage was not significant in predicting recovery, which is contrary to the proposed hypothesis. In the maintenance stage, individuals are implementing the changes made and working on maintaining gains. Individuals in this stage tend to have more self-efficacy and self-confidence (Prochaska & Prochaska, 1999). It is possible that individuals with SMI in the maintenance stage have come to accept their illness, no longer view it as a problem, and have found a meaningful existence with a positive self-concept, therefore do not recognize the need to make any changes.

Clubhouse Engagement and Stage of Change, Inter/intrapersonal Factors

It was hypothesized the more time and greater frequency consumers spend at the clubhouse would impact inter/intrapersonal factors and stage of change. The clubhouse offers individuals with SMI a place to go and an opportunity to develop relationships. Arenas, such as clubhouses, have been identified as instrumental to recovery because individuals are able to interact with others that have had similar experiences and gain hope through “living proof that their condition could improve” (Schön, et al., 2009, p. 343). Clubhouses also offer the opportunity for consumers to develop relationships that are “symmetrical in power” (Schön, et al., 2009, p. 343). A multivariate regression analysis was performed using the number of years attending the clubhouse and clubhouse engagement to predict stages of change, stigma, sense of mattering, sense of community, and perceived social support. The number of years at the clubhouse was not significant in predicting stage of change; however, clubhouse engagement was significant in predicting all four stages of change. This is contrary to the proposed hypothesis, that clubhouse engagement and number of years at the clubhouse would be predictive of later stages of change, for example action and maintenance. These results suggest that consumers that attend the clubhouse more frequently are in any one of the stages. Attending the clubhouse more frequently may act as a catalyst in moving consumers through the stages of change by providing opportunities to observe others with similar experiences, managing their illness and living their lives in a meaningful way. Prochaska and Di Clemente (1982) identified different therapeutic processes that assist individuals through the stage of change. The processes of consciousness raising, catharsis and choosing were identified as being most successful in moving individuals to identify and accept the need to change. In addition, the development of self-efficacy is necessary to move from the early stages of change to the later stage of changes (Chou, et al., 2004). Clubhouses offer consumers involvement in governance and operations and provide empowerment to individuals (Mowbray, et al., 2006) that are commonly excluded from such opportunities in society. Clubhouses offer opportunities for individuals to experience personal choice, build skills, and develop balanced peer relationships which can be instrumental in progressing through the stages of change.

The hypothesis that clubhouse engagement and number of years at the clubhouse is predictive of an increase in inter/intrapersonal factors, such as perceived social support, sense of mattering and sense of community, or decrease in perceived stigma, was not supported. Previous studies found that clubhouse participation was not directly related to recovery or social network variables (Pernice-Duca, 2008; Pernice-Duca & Onaga, 2009). It is unclear from this study what the relationship between the experience of mattering and belonging and clubhouse tenure is. Numerous anecdotal comments from participants provided insight into the importance of the clubhouse, not only as a place to go, but as a place to meet people, and to develop a sense of purpose. This study was not able to clearly identify the impact clubhouse engagement has on individuals with SMI. Research is needed to further explore the nature of the relationship between the individual with SMI and clubhouse engagement.

Inter/intrapersonal Factors, Clubhouse Engagement, and Stigma

It was also hypothesized that inter/intrapersonal variables act as a buffer against the negative effects of perceived stigma by providing a more socially accepting and non-judgmental environment, along with relationships that promote self acceptance. Stigma has been implicated as having a detrimental effect on self-esteem and self-efficacy, and in the development of peer support (Fung, et al., 2007; Perlick, et al., 2001; Verhaeghe, et al., 2008). Stigma also has been found to discourage those with SMI to interact with others, as well as compromise social functioning (Perlick, et al., 2001). Consequently, individuals with SMI are more likely to limit interactions to family members. Family members are typically identified as providing the biggest source of support (Pernice-Duca, 2008), as opposed to friends and peers.

A multiple regression analysis revealed a negative correlation between stigma and sense of mattering, sense of community, and perceived social support. However, only sense of mattering was statistically significant in predicting a decrease in perceived stigma. Mattering has been related to improved self-concept and self-significance (Rayle, 2006). In order to neutralize the effects of stigma, it is important that a sense of acceptance and importance is realized. This may be accomplished through the development of social relationships in which reciprocity of feeling valued and important, and a mutual reliance develops.

Sense of Belonging as the Foundation for Recovery

As stated previously, the theoretical foundation upon which this study is based on is the Belongingness Hypothesis. The Belongingness Hypothesis suggests that humans have a basic motivation to develop and maintain positive, significant, interpersonal relationships and that failure to do so results in profound loneliness and negatively impacts emotional and physical health (Baumeister & Learly, 1995). Individuals with SMI are at risk for social rejection and isolation, thus inhibiting the ability to develop positive and important relationships necessary to develop a sense of mattering. Consequently, the author conceptualized sense of belonging as the necessary foundation for the emergence of recovery. The hypothesized model conceptualizes sense of belonging as being the foundation for the development of the recovery constructs: having a positive identity, experiencing hope and meaningfulness, and accepting responsibility for one's illness and support. Structural equation model (SEM) analysis found the model to be acceptable and a good fit. The latent variables include sense of belonging, responsibility for illness and support, hope and meaningfulness, and positive identity. Indicators of the latent variables were measured variables in the current study. Hope and meaningfulness predicted sense of community and personal confidence and hope. Positive identity predicted sense of mattering and a decrease in perceived stigma. Responsibility for illness and support predicted perceived social support, reliance on others, willingness to ask for help, and a goal and success orientation. The path coefficients were all significant and in the expected direction.

This model supports the concept of sense of belonging functioning as the underpinnings in the development of recovery. Developing a sense of belonging promotes and supports recovery. The conceptualized model is congruent with findings from other studies on the effects of sense of belonging. For example, various studies have found that individuals with SMI that experience a sense of belonging report less depression, an increase engagement in care, and an increase in physical health (Leutwyler, Chafetz, & Wallhagen, 2010; McCallum & McLaren, 2011).

Limitations

The biggest limitation of this study is the lack of a comparison group. The external validity of this study is threatened by the lack of generalizability of the findings to populations outside the clubhouse. In order to understand the role of clubhouses in recovery and the impact inter/intrapersonal variables have on recovery, a comparison group of individuals with SMI that do not attend clubhouses is imperative. The participants in this study were not randomly assigned but volunteered. An inherent difference may exist in those that were willing to participate. Self-report measures are often criticized for their lack of reliability and threat to internal validity. The threat to internal validity exists in that the participant may under report or over report the dimension being measured in order to provide what is perceived by the participant as desirable answers. In this study, the perception of the participant on the dependent variables was crucial in exploring the concept of social process variables and recovery. However, feedback from others significant to the participant, outside the clubhouse, would be helpful in providing a more descriptive picture of the experience of recovery.

In addition, the instruments used in this study may threaten internal validity. While the Recovery Assessment Scale has been used in numerous studies investigating recovery among individuals with SMI, many of the other survey instruments have not frequently been implemented. For example, this is the first study the author is aware of in which the Sense of Mattering Scale was used in a sample population of individuals with SMI. Also, the Stigma Scale and Sense of Community Scale have had minimal application in research studies. However, the instruments did appear to tap into the construct being measured. The Adequacy of Financial Resources (AFR) and the Living Independence (LI) scale were both subscales of larger scales. While the AFR did provide adequate Cronbach's alpha coefficients for the current study, the data was skewed. The LI did not indicate it was a reliable measure of independent functioning. Further research is warranted in order to substantiate these findings. It is recommended that measures more sensitive to assessing level of independent functioning and adequacy of financial resources be utilized. Further, research exploring the concepts of sense of mattering and sense of community using standardized assessments is necessary to improve internal validity.

Recovery has been identified as a non-linear process which suggests fluctuations occur. This study used a cross sectional design which records a moment in time and is not sensitive to variations that may occur. A longitudinal study, which follows individuals with SMI over time, would be sensitive to the process of recovery, movement through stages of change, and the development and impact of inter/intrapersonal factors.

Future Directions and Clinical Implications

This study was designed to examine the occurrence of subjective recovery from SMI and potential contributing factors. Clinical implications include promoting psychosocial rehabilitation programs, such as clubhouses that provide an environment, which fosters a sense of belonging and a sense of mattering. In addition, a sense of purpose and a place to belong appear to benefit those otherwise ostracized from mainstream society. In order for appropriate policy, treatment approaches, and expected outcomes to be developed, it is important for mental health providers and governmental organizations to recognize that recovery does occur among individuals with SMI. The possibility of recovery opens the door to broadening and increasing expectations of individuals with SMI to pursue goals, develop a sense of identity, and lead a meaningful life. Further research on differences in the experience of subjective recovery across psychiatric diagnostic groups and gender is warranted. Gaining insights into whether or not differences occur will increase our understanding of the role psychiatric diagnosis may play in recovery. In addition, increasing understanding of recovery differences across gender is imperative in order to provide appropriate treatment approaches.

The concept of the Belongingness Hypotheses and sense of mattering appear to have important underpinnings in psychological well-being. This study identified that sense of mattering plays an important role in recovery and reducing stigma. The promotion of sense of mattering has practical application in numerous areas of life, including education, physical health, and mental well-being. For example, the concept of sense of mattering is recognized as important to academic success. Research indicates that university students that experience the factors of mattering, awareness, importance, and reliance, are more engaged, experience less stress, and are more successful academically (France & Finney, 2010). Dixon and Tucker (2008) proposed applying the concept of mattering to enhance a strengths-based school counseling program. Their contention is that “the powerful experience of mattering to others is an essential aspect of healthy and emotional social development for all people” (Dixon & Taylor, 2008, p. 126). Leutwyler et al. (2010) suggests health care providers that promote positive relationships with older adults with schizophrenia can positively impact engagement in health care through the development of a sense of belonging. It is suggested that developing a sense of mattering with a health care provider promotes engagement in health care and crosses over to other aspects of health living (Leutwyler, et al., 2010). Further investigation of the concept of sense of mattering including, how to promote it and factors that inhibit it, is warranted.

The constructs of sense of community and sense of mattering appear to be intertwined yet distinct and further underscore the importance of the Belongingness Hypothesis. The author suggests that a sense of mattering may develop out of, or from, a sense of community. As defined earlier, a sense of community includes group membership, or sense of belonging; and influence, or a sense that one matters (Peterson, et al., 2006). However, a sense of mattering is different in that it occurs based on an individual's interpretation and perception of others' behaviors toward them, while "belonging is thought to be more group oriented" (Dixon & Tucker, 2008, p. 123). France and Finney (2010) examined university mattering and identified a four factor model of mattering. The model identified awareness, importance, reliance, and ego extension as distinct and separate aspects that contribute to the sense of mattering and sense of belonging (France & Finney, 2010). Understanding the connection between sense of community and sense of mattering will be important in order to promote the development of these inter-intrapersonal factors.

Additional studies are necessary to further confirm the role sense of mattering plays in recovery and stigma in order to establish the intrinsic value of this concept. The World Health Organization considers eliminating discrimination by stigma and improving mental health care a priority (Karidi, et al., 2010). Perceived stigma diminishes self esteem and self-efficacy (Fung, et al., 2007; Perlick, et al., 2001; Verhaeghe, et al., 2008). Self stigma has been referred to as "the second illness" due to the barriers it creates in social roles and the development of relationships (Karidi, et al., 2010, p.28). Further understanding of ways to reduce perceived stigma are necessary to develop useful mental health interventions. Previous research has found that identifying with a group may act as a shield in protecting individuals from stigma (Karidi, et al., 2010). Rosenfield (1997) examined the effects of receiving services at a clubhouse and perceived stigma on life satisfaction. Results indicate services offered at the clubhouse improved quality of life while perceived stigma decreased quality of life. Rosenfield (1997) also found that having a healthy self-concept mediated the role between services received and perceived stigma. It has been suggested that further research should be done on the effects mental health services and stigma have on self-concept and quality of life (Marcussen, Ritter, & Munetz, 2010). The current study identified that experiencing a sense of mattering effectively reduced perceived stigma. Further research on the role sense of mattering has in reducing perceived stigma is paramount.

Furthermore, implementing assessment for readiness to change is becoming part of routine practice in outpatient settings in order to improve patient treatment compliance and retention. A recent study found that individuals with schizophrenia that were in the action stage of change experience less self-stigma (Tsang, et al., 2010). It also found that individuals with schizophrenia in the action stage had higher global functioning and were more compliant with treatment (Tsang, et al., 2010). In addition, measures of self stigma, stages of change, and global functioning were able to predict over 75% of participants' compliance/noncompliance to treatment (Tsang, et al., 2010). As noted previously, the development of self-efficacy and implementing treatment techniques appropriate for each stage of change promotes progress through the stages of change (August & Flynn, 2007, Chou et al., 2004). Identifying appropriate therapeutic environments and treatment approaches that promote mentoring and empowerment, may aid in the progression of the need to change to an acceptance and willingness to take responsibility for one's illness, and may vastly improve recovery outcomes for individuals with SMI.

Further research on the factors that promote recovery from serious mental illness has cross cultural relevance. Research on the SAMHSA recovery model and quality of life indicators was recently completed in Hong Kong (Chiu, Ho, Lo, & Yiu, 2010). The findings indicate there is more to recovery than just “symptom control and patient management” (Chiu, et al., 2010, p. 1). The SAMHSA model of recovery was supported and the importance of the promotion of personal responsibility and self determination was identified as paramount in the achievement of recovery (Chiu, et al., 2010). In addition, it was recognized that finding measures that “combat stigma, develop resilience, and foster patient empowerment” (Chiu, et al., 2010, p. 1) were important to further promote recovery. It appears that clubhouses may play a role in recovery through the readiness for change and as an arena for the development of an intentional environment. In order to gain a better understanding of the role of clubhouses in the development of sense of community and sense of mattering, as well as promotion of recovery, it will be important to replicate this study using a comparison group. Exploring the social process variables and readiness for change on subjective recovery in individuals with SMI that attend drop in centers, participate in Active Community Treatment (ACT), or are not involved in any psychosocial rehabilitation programs would provide more information of the extent these variables have on recovery.

APPENDIX A

WAYNE STATE
UNIVERSITY

HUMAN INVESTIGATION COMMITTEE
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NOTICE OF FULL BOARD APPROVAL

To: Deborah Conrad-Garrisi
College of Education
From: Ellen Barton, Ph.D. ____
Chairperson, Behavioral Institutional Review Board (B3)
Date: February 26, 2010
RE: HIC #: 124309B3F
Protocol Title: Examining the Intrapersonal Processes of Recovery: The Effect Social Process Variables and Readiness for Change Have on Achieving Recovery
Sponsor:
Protocol #: 0912007819
Expiration Date: December 16, 2010

The above-referenced protocol and items listed below (if applicable) were **APPROVED** following *Full Board Review* by the
Wayne State University Institutional Review Board (B3) for the period of 02/26/2010 through 12/16/2010. This approval
does not replace any departmental or other approvals that may be required.

- Clubhouse Recruitment Letter
- Clubhouse Member Recruitment Letter
- Release of Information Form
- Information Sheet

° Federal regulations require that all research be reviewed at least annually. You *may* receive a *"Continuation Renewal Reminder"* approximately
two months prior to the expiration date; however, it is the Principal Investigator's responsibility to obtain review and continued approval ***before*** the
expiration date. Data collected during a period of lapsed approval is unapproved research and can never be reported or published as research
data.

° All changes or amendments to the above-referenced protocol require review and approval by the HIC **BEFORE** implementation.

° Adverse Reactions/Unexpected Events (AR/UE) must be submitted on the appropriate form within the timeframe specified in the HIC Policy
(http://www.hic.wayne.edu/hicpol.html).

NOTE:

1. Upon notification of an impending regulatory site visit, hold notification, and/or external audit the HIC office must be contacted immediately.
2. Forms should be downloaded from the HIC website at **each** use.

APPENDIX B

Dear Clubhouse Community,

Dr. Francesca Pernice-Duca and Debbie Conrad-Garrisi through Wayne State University, are currently working on developing a better understanding of factors that promote recovery. Specifically we are interested in learning more about social support and sense of belonging consumers experience within the Clubhouse setting. We are asking for volunteers who are willing to answer survey questions. The survey questions will ask for information like your age, if you have children, about your mental health, people in your life, your feelings of recovery, and about being a clubhouse member. Some of the questions will be multiple choice answers. Some of the questions will be statements in which you choose from one of the responses; “strongly agree”, “agree”, “not sure”, “disagree”, and “strongly disagree”. The survey questions will take about 30-45 minutes to complete. The participant may complete the survey questions on their own or have a research assistant read the questions to the participant individually. All answers are strictly confidential. If you would like to have your Clubhouse participate in this, or if you have any questions, please contact us. Once you have given permission for us to come we will set up a time that is convenient for your Clubhouse. During our visit consumers interested may approach us to participate.

Thank you,

Dr. Francesca Pernice-Duca
Email: Perniceduca@wayne.edu
Phone Number 313-577-1718
Debbie Conrad-Garrisi
Email: debrudd@msn.com
Phone Number 313-820-9776

APPENDIX C

Research Information Sheet

Title of Study: Examining The Intrapersonal Processes Of Recovery: The Effect Social Support, Sense Of Mattering, And Readiness For Change Has On Achieving Recovery

Principal Investigator (PI):	Deborah Conrad-Garrisi
	College of Education
	313-820-9776

Purpose:

You are being asked to be in a research study of the recovery process from mental illness because you attend a clubhouse program. This study is being conducted by Wayne State University at clubhouses in Michigan.

Study Procedures:

If you agree to take part in this research study, you will be asked to answer survey questions. You may have the questions read to you or you may read them yourself. Some of the questions will be about you like your age, if you have children, and where you live. Some of the questions will be about your mental health such as if you take medication or have been hospitalized recently. Most of the questions will be statements that you will answer; “strongly disagree”, “disagree”, “not sure”, “agree”, and “strongly agree”. These statements will be about the clubhouse, your support system, and how you feel things are right now for you. There are no wrong answers just tell us how you feel about things. If there is a question you do not want to answer you do not have to. The information we are asking for will be gathered in one visit. Once you agree to participate you will be given the questions to answer. The length of time it takes to complete the survey is about 30-45 minutes. You will also be asked to sign a release of information so that the data from Clubhouse records verifying mental health diagnosis and history of participation at the clubhouse can be obtained. If you choose not to sign the release of information you may still take part in the study. The information obtained will only be used for the study and not shared with anyone else. The information you provide will be kept confidential. Your name will not appear on any of the answers you provide. Your participation will not affect services at the Clubhouse and no one at the Clubhouse will know your answers.

Benefits

- As a participant in this research study, there may be no direct benefit for you; however, information from this study may benefit other people now or in the future.

Risks

There are no known risks at this time to participation in this study.

Costs

- There will be no costs to you for participation in this research study.

Confidentiality:

- You will be identified in the research records by a code name or number. There will be no list that links your identity with this code.

Voluntary Participation /Withdrawal:

Taking part in this study is voluntary. You are free to not answer any questions or withdraw at any time. Your decision will not change any present or future relationships with Wayne State University or its affiliates, or your membership at the Clubhouse

Questions:

If you have any questions about this study now or in the future, you may contact Deborah Conrad-Garrisi or one of her research team members at the following phone number 313-820-9776. If you have questions or concerns about your rights as a research participant, the Chair of the Human Investigation Committee can be contacted at (313) 577-1628. If you are unable to contact the research staff, or if you want to talk to someone other than the research staff, you may also call (313) 577-1628 to ask questions or voice concerns or complaints.

Participation:

By completing the survey questions you are agreeing to participate in this study.

APPENDIX D

THE CLUBHOUSE RECOVERY PROJECT
Wayne state University

Release of Information

I (print name)_________________________give (name of clubhouse)______________________ ____________my permission to release information to Wayne State University Clubhouse Recovery Project. I understand that this information is only being used for the purpose of the research study and will not be disclosed to any other entity for any reason. I understand that my information will be kept confidential and any information identifying me will not be used.

I give permission for the following information to be obtained from Clubhouse records:

(Please initial each item you give permission to be released for research purposes for the Clubhouse Recovery Project)

______Diagnosis

______Length of time coming to clubhouse

______Frequency of Clubhouse visits

______Types of activity participation at Clubhouse

Signature:____Date_______________

Witness Signature:____Date_______________

APPENDIX E

Instructions for completing the survey questions.

Some of the questions have choices you can circle and some ask for brief written answers. Most of the questions are statements in which you circle the response that most fits how you feel.

There are no wrong answers. You do not have to answer any questions you do not want to. If you need clarification of what the question is asking, please don't hesitate to ask for an explanation.

You may choose to have a research assistant read the questions to you.

All of your answers will be kept confidential. Your answers are extremely helpful in understanding and learning more about clubhouses and the recovery process. We appreciate your time and help!

Date _____ /______/ ____ Completed: ☐ self-report ☐ with RA

Instructions: There are no wrong answers. You do not have to answer any question you don't want to answer. Some of the questions have choices you can mark and some ask for brief written answers. Select an answer that best fits how you feel about the statement. All of your answers will be kept confidential and your answers will not be identified by name.

Please Complete if completing as an interview

Clubhouse Name: ____ CLUBID#______

ID# __________ Release of Information Signed? ____________

Date of Interview (DATE): ___/___/___

Interview Started ____:_____ Interview Finished ____:_____

Name of Interviewer: ______________________Interviewer Code (T2_intrvwr): _______

DEMOGRAPHICS

1. Do you have a legal guardian? Yes no
   (If yes, member does not qualify to participate)
2. What is your date of birth?
   Month______Day_________Year_________
3. Where do you currently live? Please check the item that best describes where you live.
   A. Homeless shelter
   B. Private residence like a house, apartment, or a mobile home
   C. Adult group home or foster care home
   D. Staff supervised home or apartment
   E. I live in a place not listed above.
4. Who do you currently live with? Please circle all that apply.
   - Alone
   - Parents
   - Siblings
   - Spouse
   - Significant other
   - Friends or roommates who are consumers or clubhouse members
   - Friends or roommates who are NOT consumers or clubhouse members
   - Own children under age of 18
   - Own children over the age of 18
   - Grandparents
   - Aunts, uncles, or other relatives

5. Which of the following describes your gender?
   A) Male
   B) Female

6. What is your current level of education?
   A. Less than 9th grade
   B. Less than 12th grade, no diploma
   C. High school graduate or GED
   D. Some college, less than a degree
   E. 2 year associates degree
   F. Vocational training certificate
   G. Four year bachelor's degree
   H. Master's degree
   I. Doctorate degree

7. Are you currently enrolled in school?
    - A. Yes
    - B. No

8. What is your ethnic or racial background?
    - A. African American/Black
    - B. Arabic
    - C. Asian
    - D. Caucasian/European/White
    - E. Latino American/Hispanic/Puerto Rican
    - F. Native American

9. What is your current marital status?
    - a. Never married
    - b. Married
    - c. Divorced
    - d. Widow
    - e. Significant other
      If yes, ask if this person is a clubhouse member also? Yes No
    - f. Cohabitating with significant other?

10. Do you have children
    - a. NO
    - b. Yes
      If yes, how many children under the age of 18 do you have?
      If yes, how many children over the age of 18 do you have?

11. Do you know your mental health diagnosis?
    No
    Yes, go to question 12

12. Which describes your mental health diagnosis?

Schizophrenia	( )
Schizoaffective disorder	( )
Manic depression or bipolar disorder	( )
Major depression	( )
Obsessive compulsive disorder	( )
Anxiety disorder	( )
Dissociative disorder	( )

Personality disorder ( )
Substance abuse ( )
Other ________________________________( )

13. Are you currently taking any psychiatric medications? Yes No

14. Have you had any problems associated with alcohol or drug use in your lifetime? Yes No

15. Have you ever been hospitalized for mental health issues? Yes No

16. When was the last time you were hospitalized for mental health issues? month_____year_________
How many times have you been hospitalized for a mental health problem?______________
17. Are you currently working for pay? (if no, skip to question 19)
    a. Yes
    b. No
18. How many hours a week do you work?_____________
19. Have you been looking for work during the past 6 months?
    a. Yes
    b. No
20. Have you attended a school or training program in the last 6 months?
    a. Yes
    b. No
21. Do you have any volunteer work or any other kind of work for which you are not paid?
    a. Yes
    b. No

CLUBHOUSE PARTICIPATION

Now we would like to ask you what it is like being a Clubhouse member.

22. How long have you been coming to this Clubhouse?
Enter approximate years__________If less than a year enter approx. months__________

23. Have you gone to different clubhouses in the past?
    a. Yes
    b. No

24. If so, why did you stop or change clubhouses?____
____

25. How many days a week do you come to the clubhouse?__________________#days/week

26. What time do you usually arrive?____________ What time do you usually leave?_________

27. Do you participate in the work-ordered day? Yes No

28. Please circle which activities you generally do when you come to the clubhouse?

Kitchen
Maintenance
Snack bar
Employment unit
Clerical
Member services
Thrift shop
Environmental services

Recreational Unit
Member bank
Reception
Other

29. Do you participate in any of the social activities?
    a. Yes
    b. No

30. How many times a month do you participate at social activities at the Clubhouse?_________
___#/month

31. Do you participate in activities outside of the clubhouse?

    a. Yes
    b. No

32. What are some of the activities that you might do that are not part of the clubhouse?____________
____
____
____

33. Describe three main reasons why you come to the clubhouse. Give me your top reason first.

Top reason # 1

Tope reason # 2

Top reason #3

SENSE OF COMMUNITY IN THE CLUBHOUSE.

Now I am going to read some statements about the Clubhouse as a community. After I read each statement let me know how much you strongly disagree, disagree, not sure, agree, or strongly agree.

(Buckner, 1988; Herman et al, 2005)	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
1. I feel like I belong to this clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
2. The friendships and associations I have with other people in my clubhouse mean a lot to me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
3. If the people in my clubhouse are planning something, I think of it as something “we” are doing rather than “they” are doing.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
4. If I need advice about something I can go to someone in the clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
5. I think I agree with most people in my clubhouse about what is important in life	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
6. I feel loyal to the members of my clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
7. I feel loyal to the staff in my clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
8. I would be willing to work together with others on something to improve my clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
9. I plan to remain a member of the clubhouse for a number of years.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
10. I like to think of myself as similar to the people who are part of this clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
11. A feeling of fellowship runs deep between me and staff in this clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
12. A feeling of fellowship runs deep between me and members in this clubhouse.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
13. Being a part of this clubhouse gives me a sense of community.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
14. Being a part of this clubhouse	Strongly	Disagree	Not	Agree	Strongly

helps me to deal with my mental illness.	disagree		sure		agree
15. Belonging to this clubhouse helps me have hope for the future.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
16. Being a member of this clubhouse helps reduce stigma that I feel in the greater community.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
17. Being a member of this clubhouse gives me a place to go.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
18. Being a member helps me learn new skills.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
19. Being a member helps me get a change to find paid work.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
20. Being a member gives me something meaningful to do.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree

SOCIAL SUPPORT

Now we would like to know about the people in your life and how you feel about your social relationships.

1. During the past 7 days how often did you spend time with friends or family in recreational activities? This does not include mental health system sponsored activities or activities with the clubhouse. Please circle which one applies

   Not at all Once 2-3Times 4-6times Once a day or more

2. Please circle how often did you spend time alone in recreational activities in the past 7 days?

   Not at all Once 2-3Times 4-6times Once a day or more

3. During the past 7 days, how often did you go to clubs, church, or other meetings in your community? This does not include mental health system sponsored activities or activities with the clubhouse. Please circle which one applies

   Not at all Once 2-3Times 4-6times Once a day or more

4. Please circle how often in the past 7 days you spent time with friends in recreational activities at this clubhouse?

   Not at all Once 2-3Times 4-6times Once a day or more

Multidimensional Scale of Perceived Social Support

Zimet, Dahlem, Zimet, & Farley, 1988	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
1. My family really tries to help me	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
2. I get the emotional help and support I need from my family.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
3. I can talk about my problems with my family.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
4. My family is willing to help me make decisions.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
5. I don’t feel close to members of my family	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
6. Members of my family rely on me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
7. My family cares for me very much.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
8. I can count on my friends when things go wrong.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
9. I have friends whom I can share my joys and sorrows.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
10. My friends and I have done a lot for one another.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
11. I can talk about my problems with my friends.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
12. My friends and I are really important to each other.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
13. My friends look out for me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree

Modified Colorado Symptom Index (MCSI) (Conrad et al., 2001)

1. In the past month, how often have you felt nervous, tense, worried, frustrated, or afraid?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
2. In the past month, how often have you felt depressed?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
3. In the past month, how often have you felt lonely?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
4. In the past month, how often have others told you that you acted “paranoid” or “suspicious”?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
5. In the past month, how often did you hear voices, or hear or see things that other people didn’t think were there?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
6. In the past month, how often did you have trouble making up your mind about something, like deciding where you wanted to go or what you wanted to do, or how to solve a problem?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
7. In the past month, how often did you fell that your behavior or actions were strange or different from that of other people?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
8. In the past month, how often did you feel out of place or like you did not fit in?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day

9. In the past month, how often did you forget important things?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
10. In the past month, how often did you feel suspicious or paranoid?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day
11. In the past month, how often did you have problems with thinking too fast (thoughts racing)?	Not at all	Once during the month	Several times during the month	Several times a week	At least every day

SENSE OF MATTERING **Elliot et al. 2004**					
1. Most people do not seem to notice when I come or when I go	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2. In a social gathering, no one recognizes me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
3. Sometimes when I am with others, I feel almost as if I were invisible	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
4. People are usually aware of my presence	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
5. For whatever reason, it is hard for me to get other people's attention	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
6. Whatever else may happen, people do not ignore me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
7. For better or worse, people generally know when I am round	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
8. People tend not to remember my name.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
9. People do not care what happens to me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
10. There are people in my life who react to what happens to me in the same way they would if it had happened to them.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
11. My successes are a source of pride to people in my life.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
12. I have noticed that people will sometimes inconvenience themselves to help me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
13. When I have a problem, people usually don't want to hear about it.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
14. Much of the time, other people are indifferent to my needs.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

15. There are people in my life who care enough about me to criticize me when I need it.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
16. There is no one who really takes pride in my accomplishments.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
17. No one would notice if one day I disappeared	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
18. If the truth be known, no one really needs me.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
19. Quite a few people look to me for advice on issues of importance	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
20. I am not someone people turn to when they need something	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
21. People tend to rely on me for support	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
22. When people need help, they come to me	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
23. People count on me to be there in times of need	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
24. Often people trust me with things that are important to them.	Strongly disagree	Disagree	Neutral	Agree	Strongly agree

1. How did you learn about the Clubhouse? (Probe: Were you referred by CMH, or found out through others?

2. Do you come to the clubhouse voluntarily? (Probe, Are you forced to come with an AFC home or against your will?

3. Does coming to the clubhouse help you with your recovery? And if so, in what way has the clubhouse helped you with your recovery?

4. What might be different in your life if there was no clubhouse to belong to? How might your life be different, if at all?

CORRIGAN RECOVERY SCALE (REC) (Giffort, D., Schmook, A., Woody, C., Vollendorf, C., & Gervain, M. , 1995)

Introduction*: *I am going to read you a list of statements that describe how people sometimes feel about themselves and their lives. For each statement that I read, I want you to tell me which option on this card describes the extent to which you agree or disagree with each statement.

Item	*Question*	*Strongly Disagree*	*Disagree*	*Not Sure*	*Agree*	*Strongly Agree*
REC1.	I have a desire to succeed.	1	2	3	4	5
REC2.	I have my own plan for how to stay or become well.	1	2	3	4	5
REC3.	I have goals in life that I want to reach.	1	2	3	4	5
REC4.	I believe I can meet my current personal goals.	1	2	3	4	5
REC5.	I have a purpose in life.	1	2	3	4	5
REC6.	Even when I don’t care about myself, other people do.	1	2	3	4	5
REC7.	I understand how to control the symptoms of my mental illness.	1	2	3	4	5
REC8.	I can handle it if I get sick again.	1	2	3	4	5
REC9.	I can identify what triggers the symptoms of my mental illness.	1	2	3	4	5
REC10.	I can help myself become better.	1	2	3	4	5
REC11.	Fear doesn’t stop me from living the way I want to.	1	2	3	4	5
REC12.	I know that there are mental health services that do help me.	1	2	3	4	5
REC13.	There are things that I can do that help me deal with unwanted symptoms.	1	2	3	4	5
REC14.	I can handle what happens in my life.	1	2	3	4	5
REC15.	I like myself.	1	2	3	4	5
REC16.	If people really knew me, they would like me.	1	2	3	4	5

REC17	I am a better person than before my experience with mental illness.	1	2	3	4	5
REC18.	Although my symptoms may get worse, I know I can handle it.	1	2	3	4	5
REC19.	If I keep trying, I will continue to get better.	1	2	3	4	5
REC20.	I have an idea of who I want to become.	1	2	3	4	5
REC21.	Things happen for a reason.	1	2	3	4	5
REC22.	Something good will eventually happen.	1	2	3	4	5
REC23.	I am the person most responsible for my own improvement.	1	2	3	4	5
REC24.	I'm hopeful about my future.	1	2	3	4	5
REC25.	I continue to have new interests.	1	2	3	4	5
REC26.	It is important to have fun.	1	2	3	4	5
REC27.	Coping with my mental illness is no longer the main focus of my life.	1	2	3	4	5
REC28.	My symptoms interfere less and less with my life.	1	2	3	4	5
REC29.	My symptoms seem to be a problem for shorter periods of time each time they occur.	1	2	3	4	5
REC30.	I know when to ask for help.	1	2	3	4	5
REC31.	I am willing to ask for help.	1	2	3	4	5
REC32.	I ask for help, when I need it.	1	2	3	4	5

REC33.	Being able to work is important to me.	1	2	3	4	5
REC34.	I know what helps me get better.	1	2	3	4	5
REC35.	I can learn from my mistakes.	1	2	3	4	5
REC36.	I can handle stress.	1	2	3	4	5
REC37.	I have people I can count on.	1	2	3	4	5
REC38.	I can identify the early warning signs of becoming sick.	1	2	3	4	5
REC39.	Even when I don’t believe in myself, other people do.	1	2	3	4	5
REC40.	It is important to have a variety of friends.	1	2	3	4	5
REC41.	It is important to have healthy habits.	1	2	3	4	5

STIGMA SCALE King, Dinos, Shaw, et al, 2007 **Please circle the response that best fits how you feel**	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
1. I have been discriminated against in education because of my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
2. Sometimes I feel that I am being talked down to because of mu mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
3. Having had mental health problems has made me a more understanding person.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
4. I do not feel bad about having had mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
5. I worry about telling people I receive psychological treatment.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
6. Some People with mental health problems are dangerous.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
7. I have been understanding of my mental health problems	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
8. I have been discriminated against by police because of my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
9. I have been discriminated against by employers because of my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
10. My mental health problems have made me more accepting of other people.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
11. Very often I feel alone because of my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
12. I am scared of how other people will react if they find out about my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
13. I would have had better chances in life if I had not had mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

14. I do not mind people in my neighborhood knowing I have had mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
15. I would say I have had mental health problems if I was applying for a job.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
16. I worry about telling people that I take medicines/tablets for mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
17. People's reactions to my mental health problems make me keep myself to myself.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
18. I am angry with the way people have reacted to my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
19. I have not had any trouble from people because of my mental health problems	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
20. I have been discriminated against by health professions because of my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
21. People have avoided me because of my mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
22. People have insulted me because of my mental health problems	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
23. Having had mental health problems has made me a stronger person.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
24. I do not feel embarrassed because of my mental health problems	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
25. I avoid telling people about my mental health problems	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
26. Having had mental health problems makes me feel that life is unfair	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
27. I feel the need to hide my mental health problems from my friends.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
28. I find it hard telling people I have mental health problems.	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree

Stages of Change

(McConnaughy et al. 1983) **Please circle the response that describes how you feel**	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
1. As far as I'm concerned, I don't have any problems that need changing.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
2. I am doing something about the problems that had been bothering me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
3. It might be worthwhile to work on my problem	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
4. I am finally doing some work on my problem	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
5. I've been thinking that I might want to change something about myself.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
6. I have been successful in working on my problem but I'm not sure I can keep up the effort on my own.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
7. At times my problem is difficult, but I'm working on it.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
8. Being here is pretty much a waste of time for me because the problem doesn't have to do with me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
9. I guess I have faults, but there's nothing that I really need to change.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
10. I am really working hard to change	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
11. I have a problem and I really think I should work at it.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
12. I'm not following through with what I had already changed as well as I had hoped, and I'm here to prevent a relapse of the problem.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree

13. Even though I'm not always successful in changing, I am at least working on my problem.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
14. I thought once I had resolved my problem would be free of it, but sometimes I still find myself struggling with it.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
15. I wish I had more ideas on how to solve the problem.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
16. I have started working on my problems but I would like help.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
17. Maybe this place will be able to help me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
18. I may need a boost right now to help me maintain the changes I've already made.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
19. I hope that someone here will have some good advice for me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
20. Anyone can talk about changing; I'm actually doing something about it.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
21. All this talk about psychology is boring. Why can't people just forget about their problems?	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
22. I'm here to prevent myself from having a relapse of my problem.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
23. I feel like the problem I fixed is coming back.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
24. I have worries but so does the next guy. Why spend time thinking about them?	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
25. I am actively working on my problem.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
26. I would rather cope with my faults than try to change them.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
27. After all I had done to try to change my problem, every now and again it comes back to haunt me.	Strongly disagree	Disagree	Not sure	Agree	Strongly agree

ADEQUACY OF FINANCIAL RESOURCES

[Interviewer]: In the past two months, have you had enough money each month to pay for the following things?   Have you had enough money for...

YES	NO	CATEGORY
		1. Food
		2. Clothing
		3. Rent and Utilities
		4. Current Medical Needs- Medical Care and Medications
		5. Getting to places you have to go such as work, appointments, or grocery shopping? (that is, having money for bus fare or gas money)
		6. Traveling to visit family and friends (transportation)
		7. Social activities (things you do for fun such as eating in a restaurant or going to see a movie)
		8. Being able to pay other people for the money you owe them (financial obligations to other or personal debts)

LIVING INDEPENDENCE

[Interviewer]: Now I would like to tell me how well you are able to do each of the following activities.

	Able	Able with club help	Able with other's help	Need Help (not currently receiving)	Don't Know	Not Applicable
1. How well are you able to use public transportation?	4	3	2	1	9	8
2. How well are you able to handle money (e.g. making change)?	4	3	2	1	9	8
3. How well are you able to budget money?	4	3	2	1	9	8
4. How well are you able to cook for yourself?	4	3	2	1	9	8
5. How well are you able to do the weekly shopping?	4	3	2	1	9	8
6. How well are you able to look for a job (or wanted to look for a job)?	4	3	2	1	9	8
7. How well are you able to wash your clothes?	4	3	2	1	9	8
8. How well are you able to take care of personal hygiene?	4	3	2	1	9	8
9. How well are you able to purchase items from shops?	4	3	2	1	9	8
10. How well are you able to leave the house alone?	4	3	2	1	9	8
11. How well are you able to choose and buy clothes?	4	3	2	1	9	8
12. How well are you able to care for your personal appearance?	4	3	2	1	9	8

APPENDIX F

CLUBHOUSE DATA COLLECTION SHEET

Clubhouse ID#: ______________ Participant ID#___________________

1. DIAGNOSTIC INFORMATION OF MEMBER	
A. Primary Axis I:	________________________________ _______. ___ ___
B. Secondary Axis I:	________________________________ _______ ____ ___
C. Primary Axis II:	________________________________ _______ ___ ___
D. Initial GAF Score ______ (0-100) E. If available, what is the date of onset of the illness listed in row **A** above?	Current/ Most Recent GAF __________ (0-100) Month _______ / Year _______
2. CLUBHOUSE MEMBERSHIP AND ATTENDANCE	

a) Is the member and Active member (participates at least 1 time a week for three months)?

b) Enter the date of Clubhouse Membership Month _____ / Year ______

c) Enter the number of days per week the members attends: _______ # per week

  a. If less than 1 time a week, enter the number of days per month: _____ # per month

d) How long does the member stay at the clubhouse? Enter the approximate start and end time (or approximate number of hours: Start time: ____:_____ End Time: _____ :______

(or)

Enter Approximate # of hours: ______ hrs.

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ABSTRACT

INTER/INTRAPERSONAL VARIABLES AND READINESS FOR CHANGE ON ACHIEVING RECOVERY

by

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Individuals with serious mental illness experience numerous barriers that prevent achieving a meaningful life, as well as increase the risk of social isolation and ostracism. However, recovery from serious mental illness is an emerging reality for many who experience psychiatric illness. Psychiatric rehabilitation programs that promote recovery, community integration, and acceptance aim to combat the potentially detrimental consequences of mental illness. The purpose of this study was to examine how inter/intrapersonal variables, such as sense of mattering, sense of community, and perceived stigma influence recovery from mental illness among consumers who participate in psychiatric rehabilitation programs, known as clubhouses. In addition, readiness for change was examined to determine if stage of change was predictive of greater recovery. This study involved in-depth interviews with 143 mental health consumers from 10 clubhouses in Michigan. The Recovery Assessment Scale was used to measure the subjective experience of recovery. Functional indicators of recovery, such as decrease in symptoms and adequacy of finances, were predictive of, and therefore substantiated, the subjective experience of recovery. Multivariate regression analysis revealed consumers that spent more time at the clubhouse was predictive of stages of change. Hierarchical regression

analyses revealed that consumers experienced greater recovery when they perceived less stigmatizing attitudes about their illness and experienced a personal sense of mattering and sense of community. In addition, experiencing a sense of mattering was significant in reducing perceived stigma. Based on the theoretical framework of the belongingness hypothesis a conceptual model was developed identifying sense of belonging as the underpinnings for the development of recovery. Hypothesized relationships between specific constructs were examined using Structural Equation Modeling. The conceptualized model provided a good fit for the data and indicated that sense of belonging significantly predicts factors of recovery including, positive identity, hope and meaning, and illness responsibility and support. These results offer clinical implications and implore further research on sense of mattering and achieving recovery.

AUTOBIOGRAPHICAL STATEMENT

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Macomb Community College

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