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## Recovery from mental illness: developing a measure of underlying constructs

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RECOVERY FROM MENTAL ILLNESS: DEVELOPING A MEASURE  
OF UNDERLYING CONSTRUCTS

Thesis

Submitted to

The College of Arts and Sciences of the  
UNIVERSITY OF DAYTON

In Partial Fulfillment of the Requirements for

The Degree

Master of Arts in Psychology

By

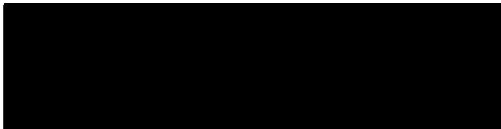
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UNIVERSITY OF DAYTON

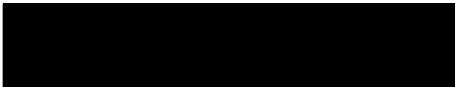
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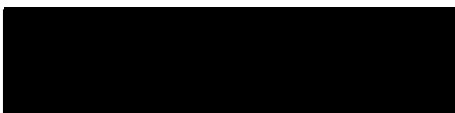
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## ABSTRACT

### RECOVERY FROM MENTAL ILLNESS: DEVELOPING A MEASURE OF UNDERLYING CONSTRUCTS

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This project serves as a pilot study that focuses on providing future researchers with samples of items that may be useful in the development of a psychometric instrument for use in future research on recovery from severe and chronic mental illness. That is, this project provides examples of items that could be used in the development of a new measure of recovery from severe and chronic mental illness. These items were selected from measures that were identified as being relevant to recovery. A new measure of recovery should be based upon a three-factor theoretical recovery model, which incorporates the interrelated constructs of hope, purpose in life, and perceived control. The original plan for this project was to collect data from a large number of individuals who are in recovery from severe and chronic mental illness. Further, the original plan was to conduct sophisticated data analysis procedures (e.g. factor analysis) in order to develop a measure of constructs relevant to recovery (i.e. hope, purpose in life, and perceived control). However, due to unexpected obstacles and problems in collecting data from individuals in recovery in applied settings, the small sample size precluded the utilization

of factor analysis and other sophisticated data analysis procedures. Therefore, empirical and rational approaches were used to examine past research on psychometric instruments in order to determine representative items for inclusion in a sample measure of recovery. In addition, a qualitative analysis of obstacles and problems encountered in collecting data for the present study was considered when developing recommendations for a measure to use in future research. Future researchers should use items similar to the ones identified in constructing a measure of recovery from severe and chronic mental illness. A psychometric instrument of this nature would represent a unique contribution to the literature, as a theory-driven and empirically based measure of recovery. A well-validated measure of recovery will help mental health professionals (and clients) to (a) understand the client's level of progress in recovery and (b) identify specific factors (i.e., hope, purpose in life, or perceived control) that need to be addressed in order to augment and promote one's recovery.

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Finally, I am deeply appreciative of the assistance and support that my husband, Joshua Hintze, provided me throughout this process.

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## TABLE OF CONTENTS

ABSTRACT.....	iii
ACKNOWLEDGEMENTS.....	v
LIST OF TABLES.....	ix
CHAPTER	
I. INTRODUCTION.....	1
Brief Overview of the Recovery Model	
Components of the Recovery Model	
The Present Study	
II. METHODS.....	17
Participants	
Measures	
Procedures	
III. RESULTS.....	25
Summary of Data Collected	
Qualitative Data Regarding Obstacles in Data Collection	
IV. DISCUSSION.....	27
Item Selection for a Sample Measure	
Development of a Sample Measure to Predict Recovery	
Recommendations for Future Research	
REFERENCES.....	40
APPENDICES.....	53
A. Adult Dispositional Hope Scale.....	53



B. Herth Hope Index.....	54
C. Life Attitude Profile-Revised (LAP-R).....	55
D. Empowerment Scale .....	59
E. Coping Self Efficacy Scale.....	64
F. Rosenberg Self-Esteem Scale .....	66
G. Internal-External Locus of Control Scale .....	67
H. Symptom Checklist-90-Revised (SCL-90-R).....	70
I. World Health Organization Quality of Life (WHOQOL)-BREF.....	71
J. Recovery Assessment Scale.....	78
K. Letter to Consumers.....	81
L. Informed Consent.....	83
M. Letter in Packet.....	86
N. Demographics Form.....	87
O. Debriefing Form .....	89
P. Participant Data.....	92
Q. Sample Measure of Recovery.....	94
R. Sample Outcome Measure: Quality of Life.....	98
S. Sample External Criterion Measure of Recovery.....	100
T. Groupings of Selected Recovery Items by Construct.....	102
U. Groupings of Selected Outcome Items by Construct .....	104
V. Groupings of Selected External Criterion Items by Construct.....	105

W. Selected Recovery Items as Presented in their Original Psychometric	
Instrument.....	106
X. Selected Outcome Items as Presented in their Original Psychometric	
Instrument.....	108
Y. Selected External Criterion Items as Presented in their Original Psychometric	
Instrument.....	109

## LIST OF TABLES

1. Raw Scores from Recovery Measures.....	92
2. Scores from Outcome Measures.....	93

## CHAPTER I

### INTRODUCTION

Approximately 29.5% of American adults have a diagnosable mental disorder (Baumeister & Harter, 2007), such as those suffering from major depressive disorder (9%), bipolar disorder (1%), schizophrenia (1%), obsessive-compulsive disorder (2.5%), posttraumatic stress disorder (8%), and borderline personality disorder (2%; American Psychiatric Association, 2000). The concept of *recovery* does not always imply “cured” but, instead, involves compensating for (or transcending) symptoms in order to pursue a meaningful life, and it involves hope, a sense of meaning or purpose, empowerment, coping, self-efficacy, and self-esteem (Corrigan & Ralph, 2005).

The recovery model has become increasingly influential, as evidenced by its inclusion in the Surgeon General’s report (Office of the Surgeon General, 2009) and the President’s New Freedom Commission on Mental Health (2007). The latter, which emphasizes a recovery-oriented public mental health system, states that “recovery is the ability to live a fulfilling and productive life despite a disability.” Incorporation of the recovery concept is often a funding priority as decisions are made regarding community-oriented mental health proposals (e.g., Ohio Department of Mental Health, 2009a). Despite the recovery model’s influence, there is a dearth of research examining the concept of recovery (Loveland, Randall, & Corrigan, 2005).

## **A Brief Overview of the Recovery Model**

In the 1980s and 1990s, recovery started to form as an important concept in the mental health field. The first Recovery Model, the Recovery Advisory Group Model, was developed in 1999 as the result of meetings between consumers and Ruth O. Ralph, Ph.D (Ralph, 2005). Although the Recovery Advisory Group was the first to formally propose a model, recovery had been on the minds of professionals and consumers for almost two decades. Individuals have recovered from severe mental illness for centuries, but it was not until more recent changes in the field (such as deinstitutionalization, psychosocial rehabilitation, and consumer advocacy movements) that recovery started developing as an important concept (Loveland et al., 2005).

Emil Kraepelin (1902) established a pessimistic view of recovery from schizophrenia that has prevailed in the mental health field, with individuals suffering from schizophrenia (or other severe mental disorders) viewed as “doomed to a symptom-ridden, disability-dominated future” (Calabrese & Corrigan, 2005; p.63). Our standard diagnostic manual (American Psychiatric Association, 2000) also has a somewhat pessimistic view, or at least it does not emphasize notions of recovery: “complete remission...[of symptoms]...is probably not common” (p.309). Two developments yielded an increased emphasis on recovery: personal testimonies and longitudinal research.

### **Personal Testimonies and Longitudinal Research**

Two important influences for the formation of the Recovery Model are personal testimonies and longitudinal research. In recent years, consumers who have recovered

from mental illness have written personal testimonies about recovery. Mental illness recovery testimonials emphasize that: (a) recovery is a *non-linear process*; (b) recovery does not imply “*curing*”; and (c) one can be actively engaged in the recovery process while symptoms continue (Corrigan & Ralph, 2005). Recovery is a non-linear process because its course cannot be plotted; instead, individuals in recovery from chronic mental illness may experience periods of symptom alleviation followed by periods of symptom exacerbation. According to consumer writings, recovery involves dealing with symptoms and includes such concepts as hope, a sense of meaning, ability to cope with social stigma, independent living, and contributing to society. In a review of testimonials, Davidson, Sells, Sangster, and O’Connell (2005) concluded: “recovery involves a redefinition of one’s illness as only one aspect of a multidimensional sense of self that is capable of identifying, choosing, and pursuing personally meaningful goals and aspirations even when continuing to experience the effects and side effects of mental illness” (p.150-151).

Although these testimonies are compelling, longitudinal research provides greater support for the recovery model. Results from at least 10 long-term follow-up studies on schizophrenia have provided evidence that some consumers experience recovery from this disorder (reviewed in Calabrese & Corrigan, 2005). For example, the Vermont Longitudinal Research Project (Harding, Zubin, & Strauss, 1987) demonstrated that many individuals with schizophrenia experience the absence of symptoms years after the original diagnosis. In this study, 269 people diagnosed with schizophrenia were followed for an average of 32 years. Harding et al. (1987) found that, at follow-up, more than 50%

of the participants had improved or recovered. At follow-up, 68% no longer had signs or symptoms of the disorder and 45% demonstrated no psychiatric symptoms.

These results show more recovery than was expected and provides contrary evidence to the lasting pessimistic view of schizophrenia that was established by Kraepelin in 1902. Calabrese and Corrigan's review of recovery research (2005) concludes that "each of these findings suggests that recovery is a real possibility for people with a severe mental illness" (p.79) and suggest that future research examine "what it means to recover and what conditions foster it" (p.79). These results also provide a more optimistic view of the course of schizophrenia than is expressed in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000), which states that "complete remission (i.e., a return to full premorbid functioning) is probably not common" (p. 309). Additional studies provide similarly optimistic views of the course of schizophrenia; however, a comprehensive review of research on recovery from mental illness is beyond the scope of this paper. Interested readers are encouraged to see Calabrese and Corrigan (2005) for a more in-depth analysis of past research.

### **Sociopolitical Impact**

The importance of the recovery model has not only been accepted by researchers and consumers; it has been embraced at the sociopolitical level as well, as evidenced by its inclusion in the President's New Freedom Commission on Mental Health (2007) and a recent report of the Surgeon General (Office of the Surgeon General, 2009). President George W. Bush's National New Freedom Commission on Mental Health (2007)

emphasized the importance of a recovery-oriented system of care in the mental health field. In the Executive Summary, recovery is defined as

...the process in which people are able to live, work, learn, and participate fully in their communities. For some individuals, recovery is the ability to live a fulfilling and productive life despite a disability. For others, recovery implies the reduction or complete remission of symptoms. Science has shown that having hope plays an integral role in an individual's recovery.

Also, it is stated "care must focus on...facilitating recovery, and on building resilience, not just on managing symptoms." Additionally, in a Report of the Surgeon General on Mental Health (2009), a section on the recovery concept is included, which describes recovery as a process.

Clearly, recovery is a popular and important concept that has been accepted and supported at the sociopolitical level. The influence of the recovery concept can be evidenced in a statement by the Ohio Department of Mental Health (2009b):

As Ohio continues to move to a recovery-oriented mental health system, the Ohio Department of Mental Health (ODMH) is striving to provide education and technical support for recovery programs and/or activities that reach beyond the critical issues of assuring personal safety and managing symptoms and focus on the rebuilding of full, productive lives despite a mental disorder.

Additionally, ODMH often incorporates the recovery concept as a funding priority in making decisions regarding community-oriented mental health proposals. In discussing their research agenda and priority topics, the Ohio Department of Mental Health (2009c)



states, "...the philosophy of recovery from mental illnesses is one which ODMH strongly advocates. Methodologically robust studies which assist in understanding the circumstances which foster or hinder individual recovery will be a valuable contribution to this perspective" (p. 4). However, while the influence of the concept of recovery has increasingly grown, research on the validity of the construct has not occurred at the same pace.

### **Components of the Recovery Model**

Based on recovery testimonials and preliminary recovery research, Reeb (2009a, 2009b) proposes a three-factor theoretical recovery model, incorporating the interrelated constructs of hope, purpose in life, and perceived control.

#### **Hope**

In past theory (e.g., Frank, 1961) and recent research (e.g., Snyder, Michael, & Cheavens, 1999), hope is linked to effective psychotherapy outcomes and has been postulated as a *common factor* underlying the effectiveness of diverse psychotherapy approaches (Frank & Frank, 1991). Snyder and colleagues (1991) define hope as "a cognitive set that is based on a reciprocally-derived sense of successful agency (goal-directed determination) and pathways (planning to meet goals)" (p. 571). Rodriguez-Hanley and Snyder (2000) postulated that hope develops in childhood through secure relationships with a caregiver. Hardships during childhood (or adulthood) can lead to a loss of hope and feelings of hopelessness.

Hope is positively correlated with mental health, increases during recovery from depression (Beck, Wiessman, Lester, & Texler, 1974) and schizophrenia (Littrell, Herth, & Hinte, 1996), and increases with improvement in psychotherapy (Snyder et al., 1999).

Hopelessness is a feature in certain mental disorders, including depression, schizophrenia, alcoholism, and sociopathy, and is also associated with suicide and physical illness. Hope has been linked to effective psychotherapy outcomes and may be a common factor underlying different therapeutic approaches (Frank & Frank, 1991).

While a comprehensive review of research on the construct of hope is beyond the scope of this thesis, the interested reader is referred to Snyder (2000). Preliminary research on recovery (e.g., Corrigan, Salzer, Ralph, Sangster, and Keck, 2004) suggests that hope may be the most important factor in recovery from mental illness, since it is highly correlated with several recovery factors (e.g., coping with symptoms, high quality of life despite ongoing symptoms).

### **Meaning of Life**

Another important concept to recovery deals with an individual's self-determined purpose in life. A consumer's 'meaning of life' answers the question "what makes my life worth living" (Debats, Drost, & Hansen, 1995). According to Frankl (1959/1985), a psychiatrist who survived Nazi concentration camps and went on to develop an existential psychotherapy approach (i.e. *logotherapy*), "this striving to find a meaning in one's life is the primary motivational force in man" (p. 104) and, "this meaning is unique and specific in that it must and can be fulfilled by him alone; only then does it achieve a significance which will satisfy his own will to meaning" (p. 105). Therefore, personal meaning is individualistic and can provide motivation. Loss of personal meaning in life may lead to social isolation and alienation (Maddi, 1967) and disengagement (Frankl, 1966). Empirical evidence has found meaning in life to be correlated with several outcomes, including mood and behavior. Meaning in life is related to emotional stability

and inversely related to anxiety, depression, and neuroticism (Melton & Schulenberg, 2008).

Debats' (1996) research demonstrates that meaning in life is related to improvement in psychotherapy. This research suggests a positive relationship between meaning and life and psychological well-being. In particular, these results show a relationship between psychiatric symptoms and meaning. During therapy, a decrease in psychiatric symptoms was related to an increase in clients' feelings that they have fulfilled or are in the process of fulfilling their life goals. It was noted that a decrease in symptoms does not automatically result in an increase in meaning, as many individuals did not experience an increase in meaning as symptoms decreased. Also, no relationship was found between merely establishing a framework of life goals and symptom alleviation. The results also suggest a predictive nature of meaning for therapeutic outcome. Clients with higher levels of meaning at the onset of therapy experienced better outcomes in terms of psychological distress, happiness, and self-esteem. Individuals with low pre-treatment levels of meaning did not benefit from therapy relative to those with pretreatment high levels of meaning (Debats, 1996).

Meaning is associated with mood; specifically, individuals with perceived meaning in life score higher on measurements of happiness, suggesting a link between these two concepts (Debats, 1990; Robak & Griffin, 2000). Mascaro and Rosen (2008) found that scores on meaning in life questionnaires were inversely correlated with scores on depression measures. They found that as meaning increases over time, symptoms of depression decreases. Additionally, they found that an individual's score on measurements of meaning predicted their scores on measurements of depressive

symptoms two months later. In particular, low meaning scores were correlated with an increase in depressive symptoms two months later, whereas high meaning scores related to a decrease in depressive symptoms. Depressive symptoms did not appear to predict meaning in life scores. They postulated that although meaning in life appears to be a predictor variable of depression, it is also probably an outcome variable because meaning's effect on depression is likely to be a function of other factors, such as environmental, psychological, and biological.

Additional research demonstrates that meaning in life is correlated with well-being and psychological distress (Melton & Schulenberg, 2008; Schulenberg, 2004). Zika and Chamberlain (1992) found a positive relationship between meaning and well-being. Researchers have demonstrated that scores on measurements of meaning in life can be used to discriminate between clinically distressed and non-distressed individuals and people with mental illness from those without it (Crumbaugh, 1968; Debats, van der Lubbe, & Wezeman, 1993).

There is limited evidence that purpose in life is a common factor for recovery. Further, it may even act as a moderating or mediating factor in certain circumstances. Thompson, Coker, Krause, and Henry (2003) found that meaning in life mediates the relationship between certain factors (personality and internal health) and adjustment in spinal cord injury patients. Purpose in life has been found to moderate recovery from bereavement (Ulmer, Range, and Smith, 1991). Additionally, Harlow, Newcomb, and Bentler (1986) provide evidence that meaning is a mediator between depression and suicidal ideation in men, and between depression and substance abuse in women. Wong (1998) hypothesizes that meaning is a moderator for effective coping with stress. Given

the strong evidence for the relationship between meaning in life and mental health, this concept should be included in a construct of recovery.

### **Notions of Control**

Reeb (2009a, 2009b) argues that many recovery-related concepts center around the notion of perceived control, including coping, empowerment, self-efficacy, and self-esteem. When there is a lack of perceived control, a person may have learned helplessness--a perceived inability to escape unpleasant situations after failed attempts (Seligman, 1975), which is a characteristic of many mental disorders (Flannery, Penk, Addo, 1996).

**Empowerment.** Another construct that is important to the concept of recovery is empowerment. Several attempts have been made to define the concept of empowerment (Rogers, Chamberlin, Ellison, and Crean, 1997). Empowerment involves feeling a sense of power or control over one's life and mental illness (Corrigan & Ralph, 2005) and involves "beliefs about one's competence, efforts to exert control" (Zimmerman, 2000; p. 46). Rappaport (1987) defined psychological empowerment as "the connection between a sense of personal competence, a desire for and a willingness to take action in the public domain." Empowerment can be conceptualized as consisting of three components – self-worth and optimism towards the future, actual power, and the ability to turn anger into action in order to affect the external world (Rogers et al., 1997).

Jacobson and Greenley (2001) separate empowerment into three components: autonomy, courage, and responsibility. Autonomy involves the capability of acting independently and calls for knowledge and self-confidence. Empowered people have the courage to speak up for themselves and to take risks. Empowerment also involves

consumer's responsibility to fulfill obligations and to live with the consequences of their choices. Empowerment involves internal factors, such as locus of control, and external factors, such as feeling connected to others (Ralph, 2000). Empowered individuals experience a sense of self-worth, self-efficacy, and power (Rogers et al., 1997).

**Coping and Self-Efficacy.** Individuals with severe mental illness routinely deal with stress; however, their ability to cope with stress can influence recovery. Stress is defined as any stimuli that cause an individual to adapt and can be either positive or negative life events (Lazarus & Folkman, 1984). According to stress and coping theory, stress occurs in relationships between individuals and the environment that are too difficult for the individual to manage. Coping refers to cognitive and behavioral components of the stress-response that either reduce or augment the stressor's effect on well-being. When experiencing stressful situations, individuals can either choose to engage in problem-focused coping or emotion-focused coping. Problem-focused coping involves efforts to directly influence or modify a stressor and is adaptive in situations where the stressor can be controlled. Emotion-focused coping occurs when individuals attempt to influence, modify, or change their feelings about the stressful event. This type of coping is most useful when the stressful event cannot be changed or controlled (Lazarus & Folkman, 1984). When individuals engage in problem-focused coping when the stressor cannot be changed or emotion-focused coping when the stressor can be changed, then maladaptive coping occurs (Strentz & Auerbach, 1988; Vitaliano, DeWolfe, Maiuro, Russo, & Katon, 1990). Maladaptive coping styles lead to greater psychological symptoms than adaptive coping styles (Park, Folkman, & Bostrom, 2001).

Therefore, the ability to cope effectively with stress and symptoms may influence one's recovery from mental illness.

Self-efficacy refers to an individual's perception of personal control and competence in completing specific tasks (Bandura, 1977). Self-efficacy is a "conviction that one can successfully execute the behavior required to produce [desired] outcomes" (Bandura, 1977; p. 193). It concerns an individual's cognitive beliefs about one's ability to perform behaviorally on specific tasks. An individual's beliefs about personal performance influence the *actual* performance. Research shows that individuals who doubt their ability to perform (low self-efficacy) perform less well than those with feelings of competence (high self-efficacy; Bandura, 2001). Greater self-efficacy leads to greater persistence in the face of obstacles (Bandura, 1977). Self-efficacy is not constant and can change between situations (DiClemente, 1986); for example, someone may feel competent about his dancing skills, but less confident about his mathematical abilities. Self-efficacy tends to improve during psychotherapy and is a predictor of outcomes (Bandura, 1997).

**Self-esteem.** Self-esteem is an important factor in the recovery process and should be considered a core element in recovery (Markowitz, 2001). Self-esteem is an individual's attitude about oneself and refers to the negative or positive evaluation of the self (Baron, Byrne, & Branscombe, 2006) and involves feelings of self-worth and self-regard (Aldridge, 1993). Individuals with high self-esteem regard themselves in a positive manner and feel that they have self-worth. On the other hand, those with low self-esteem feel negatively about themselves and tend to lack self-worth (Baron et al., 2006). A central feature in self-esteem is a sense of personal control, as reflected in items

of the most commonly-used self-esteem measure (Rosenberg Self-Esteem Scale; Rosenberg, 1965), such as: “I certainly feel useless at times” or “All in all, I am inclined to feel that I am a failure.”

Research on self-esteem and its relationship with recovery demonstrated its correlation with symptom severity. In this study, symptoms were found to decrease as self-esteem increased, whereas self-esteem decreased as symptoms increased (Markowitz, 2001). Another study (Kelly, 2006) showed the predictive power of self-esteem on depressive symptoms. In particular, high self-esteem predicted lower depressive symptoms. Individuals with low self-esteem are less motivated to improve negative mood (Wood, Heimpel, Manwell, & Whittington, 2009), perhaps creating a vicious cycle yielding perceptions of less control over negative mood and symptoms. Self-esteem is an important element of recovery from eating disorders. Vanderlinden, Buis, Pieters, and Probst (2007) found that both therapists and clients agreed that improving self-esteem was an important factor of recovery from eating disorders. It appears that an individual’s evaluation of self-worth may impact one’s recovery from mental illness.

**Locus of Control.** People vary in their beliefs about their abilities to influence outcomes of events. Locus of control (LOC) refers to the attribution of outcomes either to internal or external factors. People who believe that they can have a personal impact on events have an internal locus of control (Rotter, 1954). According to Rotter (1966), a person believes in internal control “If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics” (p. 1). LOC is similar to self-efficacy; however “self-efficacy focuses on the perception of ability to act



competently and effectively, locus of control focuses on the perception of control” (Strauser & Ketz, 2002; p. 22). Additionally, individuals with an external locus of control often feel disempowered (Breeding, 2008). Evidence demonstrates that an internal locus of control is associated with lower measures of psychological distress and with greater well-being (Hale & Cochran, 1987; Liu, Kurita, Uchiyama, Okawa, Liu, & Ma, 2000; Karayurt & Dicle, 2008). Additionally, locus of control was found to have a stress-moderating effect on behavioral problems in adolescents (Liu et al., 2000).

### **The Present Study**

The purpose of this project was to yield a psychometric instrument to assess recovery from mental illness. A psychometric instrument of this nature would represent a unique contribution to the literature, since the only currently available measure of recovery (Recovery Assessment Scale; Giffort, Schmook, Woody, Vollendorf, Gervain, 1995) merely includes items based on a “...narrative analysis...[of] four persons with severe mental illness [who] told their stories of recovery” (Corrigan et al., 2004, p. 1036). In contrast, the current project was both theory-driven and empirically-based. The original data collection plan involved five stages of scale construction. The first stage of scale construction involved developing a potential item pool that is (a) representative of recovery constructs according to existing theory and research and (b) derived from existing (well-validated) psychometric instruments that assess constructs relevant to recovery. The second stage (content validity) involved a review of potential items with the goal of modifying or deleting items. The third stage involved participants in recovery completing (a) the newly developed measure and (b) measures of psychosocial wellness criteria (see stage five). The fourth stage (construct validity) included the use of factor

analysis to identify underlying factors in the new recovery measure. The next stage (criterion-related validity) was to determine which factors (and items) of the new recovery scale best correlate with psychosocial criteria (i.e., symptom severity, quality of life, wellness). Finally, decisions would be made regarding the best items to include in the new recovery measure. However, due to unexpected obstacles and problems in collecting data from individuals in recovery in applied settings, the small sample size precluded the utilization of factor analysis and other sophisticated data analysis procedures.

Due to the limitations in data collection, the purpose and scope of this project was modified to be a pilot study that focuses on providing future researchers with samples of items that may be useful in the development of a psychometric instrument for use in future research on recovery from severe and chronic mental illness. This project provides examples of items that could be used in the development of a new measure of recovery from severe and chronic mental illness. Empirical and rational approaches were used to examine past research on psychometric instruments in order to determine representative items for inclusion in a sample measure of recovery. Future researchers should use items similar to the ones identified in constructing a measure of recovery from severe and chronic mental illness. In addition, a qualitative analysis of obstacles and problems encountered in collecting data for the present study was considered when developing recommendations for a measure to use in future research. A well-validated measure of recovery will help mental health professionals (and clients) to (a) understand the client's level of progress in recovery and (b) identify specific factors (i.e., hope, purpose in life,

or perceived control) that need to be addressed in order to augment and promote one's recovery.

## CHAPTER II

### METHODS

#### Participants

Participants included consumers with chronic and severe mental illnesses who were members of the National Alliance on Mental Illness (NAMI) – Montgomery County in Ohio. NAMI is an organization that serves to provide support, education, and advocacy to those with mental illness and their families. Dr. Reeb is currently a Board Member of the NAMI Board for Montgomery County, Ohio and Mrs. Hintze served as a Board Member prior to the completion of this study.

NAMI – Montgomery County members at various levels of recovery were recruited to participate in this study on a voluntary basis. Thirteen individuals received the measures, but only five participants returned the measures completed, while two individuals returned partially completed measures. Four of the participants who completed the surveys were women with college educations and one participant was a male with a high school education. The average age of these participants was 43. Current diagnoses included Dissociative Identity Disorder, Bipolar Disorder, Schizoaffective Disorder, Post Traumatic Stress Disorder, Major Depressive Disorder, Anxiety Disorders, Obsessive-Compulsive Disorder, Psychotic Disorder Not Otherwise Specified, and a Personality Disorder. All but one participant reported more than one current diagnosis.

## Measures

Permission was obtained to use all of the measures included in this project and measures were purchased for use, as necessary (i.e. the Symptom Checklist-90-Revised and the Life Attitude Profile-Revised). All measures used in this project are included in the Appendix section. All measure items and instructions remain exactly as they were in the original measure; however, the formatting of the measures may have been changed, for ease of readability.

### Hope

**Adult dispositional hope scale.** Participants completed a commonly used and well-validated measure of hope: the Adult Dispositional Hope Scale (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, et al., 1991; see Appendix A), which measures dispositional hope in adults. This scale is composed of 12 self-report items, such as “there are lots of ways around any problem,” that are answered on a 4-point Likert scale (from 1 = definitely false to 4 = definitely true). The score from four questions encompass the agency score; four items are summed to indicate pathways; and four additional items are distracter items. The agency and pathways scores are summed to produce an overall measure of hope, with higher scores indicating high levels of hope (Lopez, Snyder, & Pedrotti, 2003). According to Snyder et al. (1991), Cronbach alphas range from .74 to .84 for the overall score, and test-retest correlations are above .80. These researchers also found the Hope Scale to be correlated with optimism, self-esteem, and expectancy for attaining goals.

**Herth hope index.** An additional measure that participants completed in this study is the 12-item Herth Hope Index (Herth, 1992; see Appendix B), which provides a single overall score of hope. Respondents answered 'strongly disagree,' 'disagree,' 'agree,' or 'strongly agree' to questions such as "I believe that each day has potential." High scores indicate higher levels of hope. Test-retest reliability for this scale was .91, whereas the alpha coefficient was .97. This measure was found to correlate with existential well-being and other measures of hope (Herth, 1992).

### **Meaning in Life**

The Life Attitude Profile-Revised (LAP-R; Reker, 1992; see Appendix C) was used to measure attitudes towards life. The LAP-R is a 48-item measure that assesses both the degree of personal meaning and the motivation to find meaning in life. High scores indicate high endorsement of these factors (Reker & Peacock, 1981). The LAP-R includes most of the items from the Purpose in Life Test (PIL; Frazier, Oishi, & Steger, 2003). Respondents chose responses from a 7-point Likert-like scale (from 'strongly agree' to 'strongly disagree' with 'undecided' as a middle point). Results include six dimensional scores and two composite scores (Reker, 1994). One of the composite scores, the personal meaning index, is correlated both with scores on the PIL and the framework subscale of the Life Regard Index (LRI; Battista & Almond, 1977). Alpha coefficients and test-retest reliabilities both range from .77 to .87 (Melton & Schulenberg, 2008; Reker, 1992).

### **Notions of Control**

**Empowerment.** The Empowerment Scale developed by Rogers et al. (1997; see Appendix D) was used to measure empowerment. This measure consists of 28 items that

assess five factors related to empowerment: self-esteem–self-efficacy, optimism and control over the future, powerlessness, community activism and autonomy, and righteous anger (Rogers et al., 1997). Respondents answered on a 4-point Likert scale (strongly agree = 1; strongly disagree = 4) and scores were reverse coded where appropriate so that high scores indicate a high sense of empowerment (Corrigan et al., 2004). Initial studies show Cronbach's alpha to be .86; however, test-retest reliability was not examined at that time. This scale is positively correlated with quality of life, social support, and self-esteem (Rogers et al., 1997).

**Coping & self-efficacy.** To assess coping and self-efficacy, participants completed the Coping Self-Efficacy Scale (CSE; Chesney, Neilands, Chambers, Taylor, & Folkman, 2006; Appendix E), which is a 26-item measure of an individual's self-efficacy for coping with life challenges. Respondents answered on an 11-point scale (0 = cannot do at all; 5 = moderately certain can do; 10 = certain can do). High scores indicate high levels of confidence that one can cope with life's challenges. Test-retest coefficients range from .40 to .80 and Cronbach's alpha ranges from .79 to .92. This scale is positively correlated with well-being and inversely correlated with psychological distress, such as anxiety. Factor analyses of the Coping Self-Efficacy Scale identified three underlying factors, which represent different types of coping: problem-focused coping, emotion-focused coping, and social support (Chesney et al., 2006).

**Self-esteem.** A well-validated and standardized instrument for measuring self-esteem is the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; see Appendix F). This is a widely used 10-item measure that is on a four-point Likert scale from 0 ("strongly disagree") to 3 ("strongly agree"). Items include "I take a positive attitude

towards myself” and “I feel that I do not have much to be proud of.” Higher scores indicate higher levels of self-esteem. (Rosenberg, 1965). The Cronbach’s alpha of the RSES ranges from .76 (Classen, Velozo, & Mann, 2007) to .92 (Heatherton & Wyland, 2003). Test-retest reliabilities range from .72 to .93 (Classen et al., 2007). Additionally, the RSES is correlated with measures of mood (Rosenberg, 1979), and depression in particular (Martin, Thompson, & Chan, 2006).

**Locus of control.** Participants also completed the Rotter’s Internal-External Locus of Control Scale (Rotter, 1966; See Appendix G), which is an often used and well-cited scale of locus of control. This instrument measures a person’s general control expectancies (i.e. internal and external) and comprises 25 items. Reliability analyses showed an internal consistency of .70 and test-retest reliability of .72. Although this scale is decades old, there has been limited research on its validity (Fournier & Jeanrie, 2003). For the purpose of this study, four items relating to academic situations (e.g. “sometimes I can’t understand how teachers arrive at the grades they give” versus “there is a direct connection between how hard I study and the grades I get”) were eliminated from the measure because they were not relevant to the population in study.

### **Psychiatric Symptoms**

The Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1975; see Appendix H) was used to measure psychological symptoms. The SCL-90-R assesses symptomatology in nine areas (dimensions) of psychopathology: somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobia, paranoid ideation, and psychoticism. Three global indices are obtained: the Global Severity Index (GSI), the Positive Symptom Distress Index (PSDI), and the Positive Symptom Total



(PST; Derogatis & Savitz, 1999). The SCL-90-R consists of 90 items that are rated on a 5-point Likert scale. Respondents answer from 0 ("not at all") to 4 ("extremely"). High scores reflect high endorsement of symptoms (Derogatis, 1975). Derogatis, Rickels, and Rock (1976) found Cronbach's alpha to range from .77 to .90. An additional study reported similar results, with alpha values ranging from .84 to .90 (Horowitz, Rosenberg, Baer, Ureno, & Villaseñor, 1988). Test-retest coefficients range from .70 to .90 (Horowitz et al., 1988; Derogatis & Savitz, 1999). Many of the dimensions of the SCL-90-R correlate with specific scales on the Minnesota Multiphasic Personality Inventory (MMPI; Derogatis, Rickels, & Rock, 1976).

### **Quality of Life**

The World Health Organization Quality of Life (WHOQOL)-BREF (The WHOQOL Group, 1996; see Appendix I) was administered to assess participants' objective and subjective quality of life. The WHOQOL-BREF is a short version of the WHOQOL-100 assessment. The WHOQOL-BREF consists of 26 items that are reflective of four domains (i.e. physical, psychological, social, and environment), general health, and overall quality of life (The WHOQOL Group, 1996). Participants answered questions (e.g. "how satisfied are you with your health?") on a five-point Likert scale. A cross-sectional study of participants in 23 countries found that the WHOQOL-BREF has good to excellent reliability (Skevington, Lotfy, & O'Connell, 2004). The Cronbach's alpha values were greater than .70 for the overall sample, .82 for the physical health domain, .81 for the psychological domain, .80 for the environment domain, and .68 for the social relationships domain. The WHOQOL-BREF demonstrated fairly accurate discriminate validity between sick and healthy individuals. Most items correlated only with their own

domains, which suggests that the WHOQOL-BREF has decent construct validity (Skevington, Lotfy, & O'Connell, 2004).

### **Recovery**

Participants completed, as an external criterion measure, the Recovery Assessment Scale (RAS; Giffort, Schmook, Woody, Vollendorf, Gervain, 1995; see Appendix J), which measures the psychological construct of recovery. The RAS is a 41-item self-report measure that assesses recovery from mental illness. Participants answered according to a 5-point agreement scale (1 = strongly disagree; 5 = strongly agree). Higher scores reflect higher levels of recovery. Corrigan, Giffort, Rashid, Leary, and Okeke (1999) reported test-retest reliability of .88 and a Cronbach's alpha of .93. Additionally, they found the RAS to be positively correlated with self-esteem (Rosenberg Self-Esteem Scale; Rosenberg, 1965) and the self-orientation factor of the Empowerment Scale (Rogers et al., 1997). These researchers also found that the RAS is positively correlated with support network size and quality of life. Finally, the RAS is inversely correlated with psychiatric symptoms (Corrigan et al., 1999). Although the Recovery Assessment Scale is the only currently available measure of recovery, it has several limitations. The RAS is based upon narrative analysis of four persons with mental illness and is not empirically-based (Corrigan et al., 2004). In contrast, the current project aims to produce a theory-driven and empirically-based recovery scale.

### **Procedures**

Members of the National Alliance on Mental Illness – Montgomery County, Ohio, who experience severe and chronic mental illnesses, were recruited at NAMI – Montgomery County meetings (i.e. general education meetings; consumer support

groups; family support groups). Members were provided with a letter that explained the project and invited them to participate (see Appendix K). Interested individuals signed an informed consent (see Appendix L) prior to receiving a packet of surveys, which included measures of constructs related to recovery. These packets included an introduction letter/directions for completing the packet (see Appendix M); a demographics form (see Appendix N); self-report questionnaires measuring hope, purpose in life, self-esteem, self-efficacy and coping, empowerment, locus of control, and outcome measures of recovery, quality of life, and symptomatology. Participants completed the following psychometric instruments: the Adult Dispositional Hope Scale (Snyder et al., 1991); the Herth Hope Index (Herth, 1992); the Life Attitude Profile-Revised (LAP-R; Reker, 1992); the Empowerment Scale (Rogers et al., 1997); the Coping Self-Efficacy Scale (CSE; Chesney, Neilands, Chambers, Taylor, & Folkman, 2006); the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965); Rotter's Internal-External Locus of Control Scale (Rotter, 1966); the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1975); the World Health Organization Quality of Life (WHOQOL)-BREF (The WHOQOL Group, 1996); and the Recovery Assessment Scale (RAS; Giffort et al., 1995). Also included in the packet was a debriefing form (see Appendix O), which was folded in half, stapled, and located at the back of the packet. In the introduction letter at the front of the packet, participants were instructed to read the debriefing form after completing the surveys. After completing the surveys, participants sealed their surveys in a provided envelope and returned this envelope to the researchers.

## CHAPTER III

### RESULTS

#### **Summary of Data Collected**

As indicated previously, the original data collection plan was to develop a psychometric instrument to assess recovery from mental illness. The original plan involved five stages of scale construction, which included a factor analysis of items relevant to recovery. However, for reasons delineated in the section below, it was only possible to obtain data from a small sample of participants in recovery from severe and chronic mental illness (see Appendix P). Due to the low number of participants, the data could not be analyzed as planned.

#### **Qualitative Data Regarding Obstacles in Data Collection**

The original data collection attempt was primarily quantitative in nature and the researchers obtained quantitative data from a small sample of individuals in recovery from chronic and severe mental illness. Although there was not enough data to perform any meaningful statistical analyses, the data collection attempt and experience gave rise to important qualitative data regarding obstacles in data collection in this research area. This information is critical to a future attempt to develop a data collection strategy that is more successful.

The first obstacle involved was the limited subject pool that occurred by obtaining participants only through NAMI – Montgomery County. Although NAMI – Montgomery

County offers several groups and meetings for individuals with mental illness and their family members, there are a limited number of individuals with mental illness who attend these meetings. This project did not require participants to complete the surveys in the presence of project investigators and therefore relied on participants to return the surveys to project investigators on their own. This project assumed that participants would return the surveys at the NAMI – Montgomery County meetings following the meetings where participants first obtained the surveys. However, the participants may not always attend each meeting, which may have contributed to some participants not returning the surveys.

The second obstacle involved was the total length of the surveys. Participants were asked to complete ten questionnaires with a total of 315 items. Several individuals expressed to researchers their desire to complete these questionnaires; however, some individuals said that anxiety about the length prevented them from completing the surveys. The surveys are estimated to take an adult from the non-psychiatric population approximately 45 minutes to complete and individuals with concentration difficulties are expected to take longer. It is likely that the length deterred participants, particularly those with concentration difficulties or anxiety, from completing the surveys.

The third obstacle involved the use of the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1975). This questionnaire is copyrighted by Pearson Assessments, which requires participants to complete answer sheets provided by Pearson Assessments. This answer sheet looks different from the other questionnaires and has its own cover sheet, which may be confusing to participants. At least one participant completed all of the questionnaires except for the SCL-90-R, which suggests that the SCL-90-R format may have been confusing to participants.

## CHAPTER IV

### DISCUSSION

Given the qualitative data reviewed in the Results section with regard to experiences, obstacles, and limitations involved in the attempt to have the comprehensive battery of psychometric instruments completed by individuals in recovery from chronic mental illness, the purpose of this discussion is twofold: First, for each psychometric instrument that had been selected for inclusion in the comprehensive battery assessing constructs pertinent to recovery, recommendations based on available research are presented with regard to possible items to use in a measure to be employed in this program of research in the future, which will assess these constructs (i.e. hope, meaning in life, perceived control). For the sake of clarity, it is not recommended that researchers use the specific items listed here due to copyright laws, but rather, these items are selective of the kind of item that researchers could use to assess constructs of recovery, symptomatology, and quality of life. It is recommended that future researchers include items that assess each of these constructs.

In making decisions regarding which items from the available measures should be included in the new measure, in order to maximize the likelihood of *construct validity* (Cronbach & Meehl, 1955), both the *empirical approach* and the *rational approach* (see Wiggins, 1973; Anastasi & Urbina, 1997) were consulted. The *empirical approach* (i.e., empirical criteria) was used whenever possible; that is, some items were selected based

on such questions as: Which items have the highest factor loadings in available factor analysis research? Which items have the highest correlation with total scores on the measure in available research? Which items have been found to correlate best (or best predict) outcome measures of recovery in available research? To some extent, the *rational approach* also guided item selection: Which items seem most pertinent to recovery? Which items seem to best represent the construct assessed by the measure in question? Regarding the purpose of this section, a measure to be employed in future research will be constructed and presented, based on the strategy noted above, which relied on both *empirical* and *rational* approaches to items selection.

### **Item Selection for a Sample Measure**

#### **Hope**

**Adult dispositional hope scale.** Factor analysis of the Adult Dispositional Hope Scale yielded two factors: agency and pathways (Snyder et al., 1991). The item "I've been pretty successful in life" had the highest factor loadings (.76 – .83) for the agency factor; however, this item is not recommended for use in a new scale because it does not seem very representative of the construct of hope. Instead the item "my past experiences have prepared me well for my future" (.61 - .70) from the agency factor will be recommended because it is more relevant to the factor of hope. The item "I can think of many ways to get out of a jam" had the highest factor loadings (.78 – .85) for the pathways factor and will be representative of the pathways factor of hope.

**Herth hope index.** Factor analysis of the Herth Hope Index revealed three factors: inner sense of temporality and future; inner positive readiness and expectancy; and interconnectedness with self and others (Herth, 1992). The item "I feel scared about

the future” had the highest factor loading (-.81) on the inner sense of temporality and future factor, albeit negatively. The item “I can see possibilities in the midst of difficulties” loaded the greatest (.81) on the inner positive readiness and expectancy factor. The item “I feel all alone” had the greatest loading (-.70) on the factor interconnectedness with self and others, although it was correlated negatively with this factor (Herth, 1992). All three of the items previously listed are good representations of items that assess hope.

### **Meaning in Life**

Factor analysis of the LAP-R resulted in five factors: purpose and coherence; existential vacuum; choice/responsibleness; death acceptance; goal seeking (Reker, 1992). The item “I have a mission in life that gives me a sense of direction” had a factor loading of .78 on the purpose and coherence factor and is a good representation of an item that assess meaning in life. Additional purpose and coherence items that were selected as example items are “I have a clear understanding of the ultimate meaning in life” (.72) and “I have been aware of an all consuming and powerful purpose towards which my life has been directed” (.71). These two items were selected due to their general relevance to the construct of purpose in life. The item “I feel that some element which I can’t quite define is missing from my life” had a factor loading of .64 on the existential vacuum factor and is also selected as a sample item. The highest loading on the factor choice/responsibleness was .76 for the item “I determine what happens in my life.” This item will not be used as an example because it is similar to an item from the Empowerment Scale (Rogers et al., 1997), which will be used instead: “I can pretty much determine what will happen in my life.” For the factor death acceptance, the item



“some people are very frightened of death, but I am not” loaded at .85; however, this item was not selected because death acceptance does not appear to be relevant to recovery. Finally, the item “I am determined to achieve new goals in the future” loaded at .71 on the goal seeking factor and will be included as an example item.

### **Notions of Control**

**Coping self-efficacy scale.** Factor analyses of the Coping Self-Efficacy Scale identified three underlying factors, which represent different types of coping: problem-focused coping, emotion-focused coping, and social support (Chesney et al., 2006). The items with the highest standardized exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) loadings for each of the three factors will be used as example items. Of the items regarding problem-focused coping, the item “break an upsetting problem down into smaller parts” had the greatest EFA and CFA values, ranging from .83 to .87. The item “make unpleasant thoughts go away” of the emotion focused items had high CFA and EFA values that ranged from .88 to .97. Finally, the social support item with the highest EFA and CFA values was “get friends to help you with the things you need,” with values ranging from .92 to .95. These three questions were selected as example items for assessing the construct of coping and self-efficacy.

**Empowerment.** A factor analysis of the Empowerment Scale yielded five factors: self-esteem-self-efficacy; power-powerlessness; community activism and autonomy; optimism and control over the future; and righteous anger (Rogers et al., 1997). In general, the items that loaded the highest on each factor were chosen for inclusion as example items for assessing empowerment. The item which loaded on the self-esteem-self-efficacy factor (i.e. “I generally accomplish what I set out to do”) will

not be included because self-esteem and self-efficacy will be addressed with items from other questionnaires. Additionally, no items from the righteous anger factor (e.g. "getting angry about something is often the first step toward changing it") will be included because righteous anger has little relevance to the construct of recovery. Two items from each of the three remaining factors (i.e. power-powerlessness; community activism and autonomy; optimism and control over the future) will be including as example items. The following items will be included: "I feel powerless most of the time" (.69; power-powerlessness); "most of the misfortunes in my life were due to bad luck" (.62; power-powerlessness); "people have a right to make their own decisions, even if they are bad ones" (.68; community activism and autonomy); "people should try to live their lives the way they want to" (.64; community activism and autonomy); "people are limited only by what they think possible" (.78; optimism and control over the future); and "I can pretty much determine what will happen in my life" (.62; optimism and control over the future).

**Locus of control.** Original factor analyses of Rotter's Locus of Control scale by Rotter (1966, 1975) identified one general factor of person control; however, additional studies yielded more than one factor (Joe & Jahn, 1973; Cherlin & Bourque, 1974). Marsh & Richards' (1987) analysis of published factor analysis studies determined that a five-factor model best represents Rotter's Locus of Control scale. These five factors are general luck, political control, success via personal initiative, interpersonal relationships, and academic situations. All of these factors are either represented in other constructs or are irrelevant to recovery; as a result, no items from this scale will be included as examples. Additionally, the Rotter's Locus of Control scale has a distinct rating scale that would require adaptation if these items were to be included.

**Rosenberg self-esteem scale.** Gray-Little, Williams, and Hancock (1997) found that the results of a factor analysis of the Rosenberg Self-Esteem Scale yielded a unidimensional measure of self-esteem. The two items that loaded the highest were “All in all, I am inclined to feel like a failure” (.7781) and “I take a positive attitude towards myself” (.7727). Due to the closeness of their factor loadings, both items will be used as examples in the sample measure of recovery.

### **Quality of Life**

The World Health Organization Quality of Life – BREF (The WHOQOL Group, 1996) consists of one item regarding overall quality of life, one item assessing general health, and 24 remaining items that encompass the domains of physical health, psychological, social relationships, and environment. There are twenty-four facets that are incorporated within those domains (e.g. financial resources, social support, self-esteem, work capacity), with one item included for each facet (The WHOQOL Group, 1996). The item regarding overall quality of life (i.e. “how would you rate your quality of life”) and the item about general health (i.e. “how satisfied are you with your health”) will be included as example items for assessing quality of life due to their general nature regarding quality of life. Additionally, the item that correlates the greatest with each domain will be included in a sample measure of quality of life. For the physical domain, the item “how satisfied are you with your ability to perform your daily living activities” correlated the greatest (.74) and will be included. The item “how satisfied are you with your abilities” correlated the greatest (.75) with the psychological domain and will be included. The item “how satisfied are you with your personal relationships” (.75) correlated the greatest with the social relationships domain and will also be included. For

the environment domain, there were two items that correlated the greatest, both with a value of .64: “how available to you is the information that you need in your day-to-day life” and “how safe do you feel in your daily life” (Skevington, Lotfy, & O’Connell, 2004). The former item (i.e. “how available to you is the information that you need in your day-to-day life”) will not be included because of its lack of relevance to recovery; however, the latter item (“how safe do you feel in your daily life”) will be included.

### **Recovery**

Results of factor analyses of the Recovery Assessment Scale yielded five factors: personal confidence and hope; willingness to ask for help; goal and success orientation; reliance on others; and no domination by symptoms (Corrigan et al., 2004). One item from each factor will be included as example items for use in a sample external criterion measure. The item “I am hopeful about my future” had the highest standardized estimate generated from confirmatory factor analysis (.740) from the personal confidence and hope factor, and will be included as an example item. The item with the highest loading (.818) in the willingness to ask for help factor was “I ask for help when I need it” and will be included. The item “I believe that I can meet my current personal goals” with a loading of .793, from the goal and success orientation factor, will also be included. The item from the reliance on others factor that will be included is “I have people that I can count on” (.720). This item will be included instead of the item “even when I don’t believe in myself, other people do” (.764) because the former item is more straightforward and less confusing than the latter item, despite the former having a lower loading value. The item “My symptoms interfere less and less with my life” had the

highest standardized estimate (.873) for the no domination by symptoms factor and will also be included as an example item.

### **Psychiatric Symptomatology**

In this study, participants completed the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1994), which is currently under copyright. Recommendations will be made in regard to possible items to use in assessing symptomatology. For the sake of clarity, it is not recommended that the SCL-90-R items be used, but rather, these items are selective of the kind of item that other researchers could use to assess symptomatology. The SCL-90-R consists of nine primary symptom dimensions: somatization; obsessive-compulsive; interpersonal sensitivity; depression; anxiety; hostility; phobic anxiety; paranoid ideation; and psychoticism (Derogatis, 1994). It is recommended that future researchers include items that assess each of the nine symptom dimensions previously listed. Examples of items from the SCL-90-R from each of these dimensions (along with their factor loadings) are: "soreness of your muscles" (somatization; .64 and .67); "having to do things very slowly to ensure correctness" (obsessive-compulsive; .72 and .72); "feeling uneasy when people are watching or talking about you" (interpersonal sensitivity; .69 and .66); "feeling blue" (depression; .70 and .77); "nervousness or shakiness inside" (anxiety; .63 and .57); "shouting or throwing things" (hostility; .75 and .76); "feeling afraid to travel on buses, subways, or on trains" (phobic anxiety; .70 and .70); "feeling that people will take advantage of you if you let them" (paranoid ideation; .58 and .60); "having thoughts that are not your own" (psychoticism; .57 and .63). These items are selective of the kind of item that future researchers should use to assess symptomatology.

### **Development of a Sample Measure to Predict Recovery**

Based on the above analysis, 21 items were selected to represent the three constructs believed to be central to recovery (i.e., hope, purpose in life, perceived control) in a sample measure of recovery; 6 items were selected for the outcome measure of quality of life; and 5 items were selected for an external criterion measure of recovery. Appendix Q provides a sample measure of recovery, which includes the previously identified example items from measures related to the constructs of recovery (i.e. hope, meaning in life, perceived control). These sample items may be useful for future researchers in constructing a measure of recovery. Appendix R provides a sample measure of quality of life, which includes the previously identified example items from a quality of life measure, the World Health Organization Quality of Life-BREF (The WHOQOL Group, 1996). Appendix S provides a sample external criterion measure of recovery, which includes the previously identified example items from the external criterion measure, the Recovery Assessment Scale (Giffort et. al., 1995). In Appendix T, the items that were selected from measures that assess constructs related to recovery (i.e. hope, purpose in life, perceived control) are organized under the three major headings: Hope; Purpose in Life; and Perceived Control. Appendix U includes the selected items from the World Health Organization Quality of Life-BREF (The WHOQOL Group, 1996) that were recommended in the sample measure of quality of life. Appendix V includes selected items from the external criterion measure of recovery, the Recovery Assessment Scale (Giffort et. al., 1995) that were recommended in the sample external criterion measure of recovery. The purpose of Appendices T, U, and V are to show readers from which instruments the selected items were derived. Readers should note that

the items, which were selected from other instruments, in Appendices Q, R, S, T, U, and V were modified to accommodate the sample measures. Appendices W, X, and Y include the selected items as they were originally presented in the psychometric instrument from which each item was derived. For clarity sake, the items listed in Appendices Q – Y are items that were selected from existing instruments and are used as example items, which may be useful for future researchers in developing a measure of recovery.

### **Scale Construction**

It is recommended that a new measure of recovery utilize one Likert-like scale, so that the measure remains simple, in order to encourage completion of the measures. In order to do this, it was necessary to impose structure on the new measure by using one Likert-like scale. Several of the original scales (i.e. Herth Hope Index; Empowerment Scale; Rosenberg Self-Esteem Scale) used a four-point Likert scale, which included the following responses: strongly agree, agree, disagree, and strongly disagree. The Adult Dispositional Hope Scale used a four-point Likert scale which ranged from definitely false to definitely true. The Life Attitude Profile - Revised utilized a seven-point Likert scale, which ranged from strongly agree to strongly disagree. Respondents were instructed to select a number from 0 – 10 on the Coping Self-Efficacy Scale, which corresponded to “cannot do at all” for 0 to “certain can do” for 10.

It is recommended that a Likert-like scale ranging from 0 to 10 be used in a new measure of recovery because it allows participants to make finer discriminations when completing the measures. Additionally, this scale should be easy for participants to use because many individuals are familiar with 10-point rating scales (e.g. patients are often asked to rate their pain on a scale from 1 – 10). A new measure of recovery should use a

scale that ranges from Strongly Disagree to Strongly Agree. The recommended Likert-like scale is illustrated in the sample measures in Appendixes Q, R, and S.

### **Instructions**

It is recommended that the instructions for the new measure be as simple as possible, so as not to be confusing to participants. The instructions in the sample measure of recovery (see Appendix Q) were adapted from several of the original scales and are as follows for the sample measure of recovery and the sample external criterion measure of recovery (see Appendix S): "For each item, circle a number from 0 to 10 that best represents your feelings (strongly disagree = 0 and strongly agree = 10). Please circle only one response for each statement." The instructions for the sample outcome measure of quality of life (see Appendix R) are similar to the above instructions and are as follows: "For each item, circle a number from 0 to 10 that best represents your feelings. Please circle only one response for each statement."

Most items accommodated these instructions without requiring any changes; however, a few items needed to be altered in order to be compatible with the sample instructions. The items that came from the Coping Self-Efficacy Scale were adapted in order to accommodate the new instructions. The statement "when things aren't going well, I am confident that I can...", which had been a prompt in the original Coping Self-Efficacy Scale, was added to the beginning of each Coping Self-Efficacy item. These items were also adapted to reflect a first-person point of view. Similarly, the statement, "In the past two weeks (including today)..." was added to the beginning of the World Health Organization Quality of Life-BREF items that inquired about respondents' experiences or feelings in the past two weeks.



## **Scoring**

It is recommended that the responses in new measure of recovery be summed to reflect an overall score of recovery, with higher scores reflecting higher levels of recovery. Items should be reverse scored, as necessary. For example, in the sample measure with the example items relating to the constructs of recovery (Appendix Q), the following items would be reverse scored: 2, 6, 9, 10, 11, and 19. Responses on the sample quality of life measure should be summed to provide an overall score of quality of life, with higher scores reflecting higher levels of quality of life. Finally, the responses on the external criterion of recovery should also be summed to provide an overall recovery score, with high scores reflecting higher levels of recovery.

## **Recommendations for Future Research**

It is recommended that future studies in this program of research utilize a new measure of recovery, which assesses the constructs relevant to recovery (i.e. hope, meaning in life, perceived control). Future researchers may find that the items listed in Appendix Q may be useful in constructing a measure that assesses the constructs of recovery. In implementing this research, it is important to take into account the obstacles in data collection (as reviewed in the Results section), and it is believed that these obstacles can be transcended if the following recommendations are implemented in future research. First, future research should focus on obtaining samples from multiple sources, such as through local mental health agencies (e.g. South Community Behavioral Healthcare; Eastway Corporation), along with NAMI – Montgomery County members. The use of multiple sources can increase exposure to participants and should increase the sample size. Another method for increasing the sample size is by providing incentives for

participation. The current study attempted to empower consumers to participate by emphasizing their contribution to the knowledge and research on recovery; however, financial or material incentives are likely to be more effective.

It is recommended that future researchers require participants to complete the questionnaires in the presence of an individual associated with the project, if at all possible. Although allowing participants to complete the measures at home is convenient for the participants, it can lead to some participants not completing and returning the surveys. Completing and returning the questionnaires in the presence of researchers can reduce this problem.

Future researchers can avoid some of the obstacles listed earlier if they use the items listed in Appendices Q, R, and S as examples of items to be included in a new measure of recovery, outcome measures of symptomatology and quality of life, and external criterion measures of recovery. Adapted measures would take considerably less time to complete than the original measures, which should result in a higher rate of participation. Additionally, new measures will reduce confusion that is associated with the different scales in the original packet of questionnaires, particularly with the Symptom Checklist-90-Revised. It is believed that, if these recommendations for future research are implemented, the research program will yield a measure that is useful in (a) predicting recovery from severe and chronic mental illness and (b) providing theoretical insights with regard to the process of recovery.

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## APPENDIX A

### Adult Dispositional Hope Scale

Directions: Read each item carefully. Using the scale shown below, please select the number that best describes YOU and put that number in the blank provided.

1 = definitely false    2 = mostly false    3 = mostly true    4 = definitely true

- \_\_\_\_\_ 1. I can think of many ways to get out of a jam.
- \_\_\_\_\_ 2. I energetically pursue my goals.
- \_\_\_\_\_ 3. I feel tired most of the time.
- \_\_\_\_\_ 4. There are lots of ways around any problem.
- \_\_\_\_\_ 5. I am easily downed in an argument.
- \_\_\_\_\_ 6. I can think of many ways to get the things in life that are most important to me.
- \_\_\_\_\_ 7. I worry about my health.
- \_\_\_\_\_ 8. Even when others get discouraged, I know I can find a way to solve the problem.
- \_\_\_\_\_ 9. My past experiences have prepared me well for my future.
- \_\_\_\_\_ 10. I've been pretty successful in life.
- \_\_\_\_\_ 11. I usually find myself worrying about something.
- \_\_\_\_\_ 12. I meet the goals that I set for myself.



## APPENDIX B

### Herth Hope Index

Listed below are a number of statements. Read each statement and place an [X] in the box that describes how much you agree with that statement right now.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I have a positive outlook toward life.				
2. I have short and/or long range goals.				
3. I feel all alone.				
4. I can see possibilities in the midst of difficulties.				
5. I have a faith that gives me comfort.				
6. I feel scared about my future.				
7. I can recall happy/joyful times.				
8. I have deep inner strength.				
9. I am able to give and receive caring/love.				
10. I have a sense of direction.				
11. I believe that each day has potential.				
12. I feel my life has value and worth.				

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1999 items 2 & 4 reworded

## APPENDIX C

### Life Attitude Profile-Revised (LAP-R)

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This questionnaire contains a number of statements related to opinions and feelings about you and life in general. Read each statement carefully, then indicate the extent to which you agree or disagree by circling one of the alternative categories provided. For example, if you **STRONGLY AGREE**, circle **SA** following the statement. If you **MODERATELY DISAGREE**, circle **MD**. If you are **UNDECIDED**, circle **U**. Try to use the undecided category sparingly.

<b>SA</b>	<b>A</b>	<b>MA</b>	<b>U</b>	<b>MD</b>	<b>D</b>	<b>SD</b>
STRONGLY AGREE	AGREE	MODERATELY AGREE	UNDECIDED	MODERATELY DISAGREE	DISAGREE	STRONGLY DISAGREE

- |   |                   |
|---|-------------------|
| 1. My past achievements have given my life meaning and purpose.                 | SA A MA U MD D SD |
| 2. In my life I have very clear goals and aims.                                 | SA A MA U MD D SD |
| 3. I regard the opportunity to direct my life as very important.                | SA A MA U MD D SD |
| 4. I seem to change my <u>main</u> objectives in life.                          | SA A MA U MD D SD |
| 5. I have discovered a satisfying life purpose.                                 | SA A MA U MD D SD |
| 6. I feel that some element which I can't quite define is missing from my life. | SA A MA U MD D SD |
| 7. The meaning of life is evident in the world around us.                       | SA A MA U MD D SD |
| 8. I think I am generally much less concerned about death than those around me. | SA A MA U MD D SD |

<b>SA</b>	<b>A</b>	<b>MA</b>	<b>U</b>	<b>MD</b>	<b>D</b>	<b>SD</b>
STRONGLY AGREE	AGREE	MODERATELY AGREE	UNDECIDED	MODERATELY DISAGREE	DISAGREE	STRONGLY DISAGREE

---

- |   |    |   |    |   |    |   |    |
|---|----|---|----|---|----|---|----|
| 9. I feel the lack of and a need to find a real meaning and purpose in my life.   | SA | A | MA | U | MD | D | SD |
| 10. New and different things appeal to me.  | SA | A | MA | U | MD | D | SD |
| 11. My accomplishments in life are largely determined by my own efforts.  | SA | A | MA | U | MD | D | SD |
| 12. I have been aware of an all powerful and consuming purpose towards which my life has been directed.                                   | SA | A | MA | U | MD | D | SD |
| 13. I try new activities or areas of interest and then these soon lose their attractiveness.  | SA | A | MA | U | MD | D | SD |
| 14. I would enjoy breaking loose from the routine of life.  | SA | A | MA | U | MD | D | SD |
| 15. Death makes little difference to me one way or another.   | SA | A | MA | U | MD | D | SD |
| 16. I have a philosophy of life that gives my existence significance.   | SA | A | MA | U | MD | D | SD |
| 17. I determine what happens in my life.  | SA | A | MA | U | MD | D | SD |
| 18. Basically, I am living the kind of life I want to live.   | SA | A | MA | U | MD | D | SD |
| 19. Concerning my freedom to make my choice, I believe I am absolutely free to make all life choices.                                     | SA | A | MA | U | MD | D | SD |
| 20. I have experienced the feeling that while I am destined to accomplish something important, I cannot put my finger on just what it is. | SA | A | MA | U | MD | D | SD |
| 21. I am restless.  | SA | A | MA | U | MD | D | SD |
| 22. Even though death awaits me, I am not concerned about it.   | SA | A | MA | U | MD | D | SD |

<b>SA</b>	<b>A</b>	<b>MA</b>	<b>U</b>	<b>MD</b>	<b>D</b>	<b>SD</b>
STRONGLY AGREE	AGREE	MODERATELY AGREE	UNDECIDED	MODERATELY DISAGREE	DISAGREE	STRONGLY DISAGREE

---

- |   |    |   |    |   |    |   |    |
|---|----|---|----|---|----|---|----|
| 23. It is possible for me to live my life in terms of what I want to do.          | SA | A | MA | U | MD | D | SD |
| 24. I feel the need for adventure and "new worlds to conquer".                    | SA | A | MA | U | MD | D | SD |
| 25. I would neither fear death nor welcome it.                                    | SA | A | MA | U | MD | D | SD |
| 26. I know where my life is going in the future.                                  | SA | A | MA | U | MD | D | SD |
| 27. In thinking of my life, I see a reason for my being here.                     | SA | A | MA | U | MD | D | SD |
| 28. Since death is a natural aspect of life, there is no sense worrying about it. | SA | A | MA | U | MD | D | SD |
| 29. I have a framework that allows me to understand or make sense of my life.     | SA | A | MA | U | MD | D | SD |
| 30. My life is in my hands and I am in control of it.                             | SA | A | MA | U | MD | D | SD |
| 31. In achieving life's goals, I have felt completely fulfilled.                  | SA | A | MA | U | MD | D | SD |
| 32. Some people are very frightened of death, but I am not.                       | SA | A | MA | U | MD | D | SD |
| 33. I daydream of finding a new place for my life and a new identity.             | SA | A | MA | U | MD | D | SD |
| 34. A new challenge in my life would appeal to me now.                            | SA | A | MA | U | MD | D | SD |
| 35. I have the sense that parts of my life fit together into a unified pattern.   | SA | A | MA | U | MD | D | SD |
| 36. I hope for something exciting in the future.                                  | SA | A | MA | U | MD | D | SD |
| 37. I have a mission in life that gives me a sense of direction.                  | SA | A | MA | U | MD | D | SD |

<b>SA</b>	<b>A</b>	<b>MA</b>	<b>U</b>	<b>MD</b>	<b>D</b>	<b>SD</b>
STRONGLY AGREE	AGREE	MODERATELY AGREE	UNDECIDED	MODERATELY DISAGREE	DISAGREE	STRONGLY DISAGREE

---

- |  |    |   |    |   |    |   |    |
|--|----|---|----|---|----|---|----|
| 38. I have a clear understanding of the ultimate meaning of life.            | SA | A | MA | U | MD | D | SD |
| 39. When it comes to important life matters, I make my own decisions.        | SA | A | MA | U | MD | D | SD |
| 40. I find myself withdrawing from life with an "I don't care" attitude.     | SA | A | MA | U | MD | D | SD |
| 41. I am eager to get more out of life than I have so far.                   | SA | A | MA | U | MD | D | SD |
| 42. Life to me seems boring and uneventful.                                  | SA | A | MA | U | MD | D | SD |
| 43. I am determined to achieve new goals in the future.                      | SA | A | MA | U | MD | D | SD |
| 44. The thought of death seldom enters my mind.                              | SA | A | MA | U | MD | D | SD |
| 45. I accept personal responsibility for the choices I have made in my life. | SA | A | MA | U | MD | D | SD |
| 46. My personal existence is orderly and coherent.                           | SA | A | MA | U | MD | D | SD |
| 47. I accept death as another life experience.                               | SA | A | MA | U | MD | D | SD |
| 48. My life is running over with exciting good things.                       | SA | A | MA | U | MD | D | SD |

## APPENDIX D

### Empowerment Scale

#### MAKING DECISIONS Revised Shortened Version

**Instructions:** Below are several statements relating to one's perspective on life and with having to make decisions. Please circle the number above the response that is closest to how you feel about the statement. Indicate how you feel now. First impressions are usually best. Do not spend a lot of time on any one question. Please be honest with yourself so that your answers reflect your true feelings.

PLEASE ANSWER ALL QUESTIONS BY CIRCLING THE NUMBER THAT BEST DESCRIBES HOW YOU FEEL. PLEASE CHECK ONLY ONE.

1. **I can pretty much determine what will happen in my life.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

2. **People have more power if they join together as a group.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

3. **Getting angry about something never helps.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**4. I have a positive attitude toward myself.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**5. I am usually confident about the decisions I make.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**6. People have no right to get angry just because they don't like something.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**7. Most of the misfortunes in my life were due to bad luck.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**8. I see myself as a capable person.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**9. Making waves never gets you anywhere.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**10. People working together can have an effect on their community.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**11. I am often able to overcome barriers.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**12. I am generally optimistic about the future.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**13. When I make plans, I am almost certain to make them work.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**14. Usually I feel alone.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**15. Experts are in the best position to decide what people should do or learn.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree



**16. I am able to do things as well as most other people.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**17. I generally accomplish what I set out to do.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**18. People should try to live their lives the way they want to.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**19. I feel powerless most of the time.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**20. When I am unsure about something, I usually go along with the rest of the group.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

**21. I feel I am a person of worth, at least on an equal basis with others.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

- 22. People have the right to make their own decisions, even if they are bad ones.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

- 23. I feel I have a number of good qualities.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

- 24. Very often a problem can be solved by taking action.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

- 25. Working with others in my community can help to change things for the better.**

1	2	3	4
Strongly Agree	Agree	Disagree	Strongly Disagree

## APPENDIX E

### Coping Self Efficacy Scale

When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following:

Cannot do at all	Moderately certain can do								Certain can do
0	1	2	3	4	5	6	7	8	9 10

For each of the following items, write a number from 0 - 10, using the scale above.

When things aren't going well for you, how confident are you that you can:

1. Keep from getting down in the dumps. \_\_\_\_\_ 99
2. Talk positively to yourself. \_\_\_\_\_ 99
3. Sort out what can be changed, and what can not be changed. \_\_\_\_\_ 99
4. Get emotional support from friends and family. \_\_\_\_\_ 99
5. Find solutions to your most difficult problems. \_\_\_\_\_ 99
6. Break an upsetting problem down into smaller parts. \_\_\_\_\_ 99
7. Leave options open when things get stressful. \_\_\_\_\_ 99
8. Make a plan of action and follow it when confronted with a problem. \_\_\_\_\_ 99
9. Develop new hobbies or recreations. \_\_\_\_\_ 99
10. Take your mind off unpleasant thoughts. \_\_\_\_\_ 99
11. Look for something good in a negative situation. \_\_\_\_\_ 99
12. Keep from feeling sad. \_\_\_\_\_ 99

- |     |  |       |    |
|-----|--|-------|----|
| 13. | See things from the other person's point of view during a heated argument. | _____ | 99 |
| 14. | Try other solutions to your problems if your first solutions don't work.   | _____ | 99 |
| 15. | Stop yourself from being upset by unpleasant thoughts.                     | _____ | 99 |
| 16. | Make new friends.  | _____ | 99 |
| 17. | Get friends to help you with the things you need.                          | _____ | 99 |
| 18. | Do something positive for yourself when you are feeling discouraged.       | _____ | 99 |
| 19. | Make unpleasant thoughts go away.  | _____ | 99 |
| 20. | Think about one part of the problem at a time.                             | _____ | 99 |
| 21. | Visualize a pleasant activity or place.                                    | _____ | 99 |
| 22. | Keep yourself from feeling lonely.   | _____ | 99 |
| 23. | Pray or meditate.  | _____ | 99 |
| 24. | Get emotional support from community organizations or resources.           | _____ | 99 |
| 25. | Stand your ground and fight for what you want.                             | _____ | 99 |
| 26. | Resist the impulse to act hastily when under pressure.                     | _____ | 99 |

Chesney MA, Neilands TB, Chambers DB, Taylor JM, Folkman S. A validity and reliability study of the coping self-efficacy scale. Br J Health Psychol 2006 Sep; 11(3): 421-37. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1602207>.

We appreciate copies of manuscripts or conference presentations generated from the use of this scale to help us stay current with its use and to assess its validity and reliability in other populations.

Please address correspondence to Margaret A. Chesney, PhD, Deputy Director, National Center for Complementary and Alternative Medicine, National Institutes of Health, 31 Center Drive, Room 2B11, MSC2182, Bethesda, MD 20892-2182, USA (e-mail: [chesneym@mail.nih.gov](mailto:chesneym@mail.nih.gov)).

## APPENDIX F

### Rosenberg Self-Esteem Scale

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle **SA**. If you agree with the statement, circle **A**. If you disagree, circle **D**. If you strongly disagree, circle **SD**.

- |     |  |    |   |   |    |
|-----|--|----|---|---|----|
| 1.  | On the whole, I am satisfied with myself.                                  | SA | A | D | SD |
| 2.  | At times, I think I am no good at all.                                     | SA | A | D | SD |
| 3.  | I feel that I have a number of good qualities.                             | SA | A | D | SD |
| 4.  | I am able to do things as well as most other people.                       | SA | A | D | SD |
| 5.  | I feel I do not have much to be proud of.                                  | SA | A | D | SD |
| 6.  | I certainly feel useless at times.   | SA | A | D | SD |
| 7.  | I feel that I'm a person of worth, at least on an equal plane with others. | SA | A | D | SD |
| 8.  | I wish I could have more respect for myself.                               | SA | A | D | SD |
| 9.  | All in all, I am inclined to feel that I am a failure.                     | SA | A | D | SD |
| 10. | I take a positive attitude toward myself.                                  | SA | A | D | SD |

## APPENDIX G

### Internal-External Locus of Control Scale

Indicate which of each statement you believe to be true, despite what you may wish to be true. Circle either **a** or **b** for each number.

1.     a. Children get into trouble because their parents punish them too much.  
       b. The trouble with most children nowadays is that their parents are too easy with them.
2.     a. Many of the unhappy things in people's lives are partly due to bad luck.  
       b. People's misfortunes result from the mistakes they make.
3.     a. One of the major reasons why we have wars is because people don't take enough interest in politics.  
       b. There will always be wars, no matter how hard people try to prevent them.
4.     a. In the long run people get the respect they deserve in this world  
       b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries
5.     a. Without the right breaks one cannot be an effective leader.  
       b. Capable people who fail to become leaders have not taken advantage of their opportunities.
6.     a. No matter how hard you try, some people just don't like you.  
       b. People who can't get others to like them don't understand how to get along with others.
7.     a. Heredity plays the major role in determining one's personality  
       b. It is one's experiences in life which determine what they're like.
8.     a. I have often found that what is going to happen will happen.  
       b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
9.     a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.  
       b. Getting a good job depends mainly on being in the right place at the right time.

10.
  - a. The average citizen can have an influence in government decisions.
  - b. This world is run by the few people in power and there is not much the little guy can do about it.
11.
  - a. When I make plans, I am almost certain that I can make them work.
  - b. It is not always wise to plan too far ahead because many things turn out to- be a matter of good or bad fortune anyhow.
12.
  - a. There are certain people who are just no good.
  - b. There is some good in everybody.
13.
  - a. In my case getting what I want has little or nothing to do with luck.
  - b. Many times we might just as well decide what to do by flipping a coin.
14.
  - a. Who gets to be the boss often depends on who was lucky enough to be in the right place first.
  - b. Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.
15.
  - a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand, nor control.
  - b. By taking an active part in political and social affairs, the people can control world events.
16.
  - a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
  - b. There really is no such thing as "luck."
17.
  - a. One should always be willing to admit mistakes.
  - b. It is usually best to cover up one's mistakes.
18.
  - a. It is hard to know whether or not a person really likes you.
  - b. How many friends you have depends upon how nice a person you are.
19.
  - a. In the long run the bad things that happen to us are balanced by the good ones.
  - b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
20.
  - a. With enough effort we can wipe out political corruption.
  - b. It is difficult for people to have much control over the things politicians do in office.
21.
  - a. A good leader expects people to decide for themselves what they should do.
  - b. A good leader makes it clear to everybody what their jobs are.

- 22.   a. Many times I feel that I have little influence over the things that happen to me.  
      b. It is impossible for me to believe that chance or luck plays an important role in my life.
- 23.   a. People are lonely because they don't try to be friendly.  
      b. There's not much use in trying too hard to please people, if they like you, they like you.
- 24.   a. What happens to me is my own doing.  
      b. Sometimes I feel that I don't have enough control over the direction my life is taking.
- 25.   a. Most of the time I can't understand why politicians behave the way they do.  
      b. In the long run the people are responsible for bad government on a national as well as on a local level.



## APPENDIX H

### Symptom Checklist-90-Revised (SCL-90-R)



Hand-Scored Answer Sheet

---

Leonard R. Derogatis, PhD

ADMINISTRATOR:

BE SURE THE DEMOGRAPHIC INFORMATION ON PAGE 9 IS COMPLETED.

AFTER THE QUESTIONNAIRE IS COMPLETED, DETACH PAGE 9 BY CAREFULLY TEARING ALONG THE PERFORATED LINE. THEN DISCARD PAGES 1 THROUGH 8 AS YOU WOULD OTHER CONFIDENTIAL DOCUMENTS.

## INSTRUCTIONS

The SCL-90-R test consists of a list of problems people sometimes have. Read each one carefully and circle the number of the response that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Circle only one number for each problem (0 1 2 3 4). Do not skip any items. If you change your mind, draw an X through your original answer and then circle your new answer (0 1 ~~2~~ 3 4). Read the example before you begin. If you have any questions, please ask them now.

### EXAMPLE

0 = Not at all

1 = A little bit

2 = Moderately

3 = Quite a bit

4 = Extremely

### HOW MUCH WERE YOU DISTRESSED BY:

Body aches..... 0 1 2 3 4

**PEARSON**

P.O. Box 1416 Minneapolis, MN 55440 800.627.7271 [www.PearsonAssessments.com](http://www.PearsonAssessments.com)

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A 0 9 8 7 6 5 4

0 = Not at all    1 = A little bit    2 = Moderately    3 = Quite a bit    4 = Extremely

**HOW MUCH WERE YOU DISTRESSED BY:**

1. Headaches .....
2. Nervousness or shakiness inside .....
3. Repeated unpleasant thoughts that won't leave your mind .....
4. Faintness or dizziness .....
5. Loss of sexual interest or pleasure .....
6. Feeling critical of others .....
7. The idea that someone else can control your thoughts .....
8. Feeling others are to blame for most of your troubles .....
9. Trouble remembering things .....
10. Worried about sloppiness or carelessness .....
11. Feeling easily annoyed or irritated .....
12. Pains in heart or chest .....
13. Feeling afraid in open spaces or on the streets .....
14. Feeling low in energy or slowed down .....
15. Thoughts of ending your life .....
16. Hearing voices that other people do not hear .....
17. Trembling .....
18. Feeling that most people cannot be trusted .....
19. Poor appetite .....
20. Crying easily .....
21. Feeling shy or uneasy with the opposite sex .....
22. Feelings of being trapped or caught .....
23. Suddenly scared for no reason .....
24. Temper outbursts that you could not control .....
25. Feeling afraid to go out of your house alone .....
26. Blaming yourself for things .....
27. Pains in lower back .....
28. Feeling blocked in getting things done .....
29. Feeling lonely .....
30. Feeling blue .....

Go on to the next page

HOW MUCH WERE YOU DISTRESSED BY:

- 31. Worrying too much about things .....
- 32. Feeling no interest in things .....
- 33. Feeling fearful .....
- 34. Your feelings being easily hurt .....
- 35. Other people being aware of your private thoughts .....
- 36. Feeling others do not understand you or are unsympathetic .....
- 37. Feeling that people are unfriendly or dislike you .....
- 38. Having to do things very slowly to insure correctness .....
- 39. Heart pounding or racing .....
- 40. Nausea or upset stomach .....
- 41. Feeling inferior to others .....
- 42. Soreness of your muscles .....
- 43. Feeling that you are watched or talked about by others .....
- 44. Trouble falling asleep .....
- 45. Having to check and double-check what you do .....
- 46. Difficulty making decisions .....
- 47. Feeling afraid to travel on buses, subways, or trains .....
- 48. Trouble getting your breath .....
- 49. Hot or cold spells .....
- 50. Having to avoid certain things, places, or activities because they frighten you .....
- 51. Your mind going blank .....
- 52. Numbness or tingling in parts of your body .....
- 53. A lump in your throat .....
- 54. Feeling hopeless about the future .....
- 55. Trouble concentrating .....
- 56. Feeling weak in parts of your body .....
- 57. Feeling tense or keyed up .....
- 58. Heavy feelings in your arms or legs .....
- 59. Thoughts of death or dying .....
- 60. Overeating .....

= Not at all 1 = A little bit 2 = Moderately 3 = Quite a bit 4 = Extremely

**HOW MUCH WERE YOU DISTRESSED BY:**

1. Feeling uneasy when people are watching or talking about you .....
2. Having thoughts that are not your own .....
3. Having urges to beat, injure, or harm someone .....
4. Awakening in the early morning .....
5. Having to repeat the same actions such as touching, counting, or washing .....
6. Sleep that is restless or disturbed .....
7. Having urges to break or smash things .....
8. Having ideas or beliefs that others do not share .....
9. Feeling very self-conscious with others .....
10. Feeling uneasy in crowds, such as shopping or at a movie .....
1. Feeling everything is an effort .....
2. Spells of terror or panic .....
3. Feeling uncomfortable about eating or drinking in public .....
4. Getting into frequent arguments .....
5. Feeling nervous when you are left alone .....
6. Others not giving you proper credit for your achievements .....
7. Feeling lonely even when you are with people .....
8. Feeling so restless you couldn't sit still .....
9. Feelings of worthlessness .....
10. The feeling that something bad is going to happen to you .....
1. Shouting or throwing things .....
2. Feeling afraid you will faint in public .....
3. Feeling that people will take advantage of you if you let them .....
4. Having thoughts about sex that bother you a lot .....
5. The idea that you should be punished for your sins .....
6. Thoughts and images of a frightening nature .....
7. The idea that something serious is wrong with your body .....
8. Never feeling close to another person .....
9. Feelings of guilt .....
10. The idea that something is wrong with your mind .....

**Turn the page and follow the directions for completing the additional information.**

**ADMINISTRATOR:**  
AFTER THE QUESTIONNAIRE IS COMPLETED, DETACH PAGE 9 BY CAREFULLY TEARING ALONG THE PERFORATED LINE. THEN DISCARD PAGES 1 THROUGH 8 AS YOU WOULD OTHER CONFIDENTIAL DOCUMENTS.

**DIRECTIONS**

Print your name, identification number, age, gender, and test date below.

\_\_\_\_\_  
Name

\_\_\_\_\_  
ID Number

\_\_\_\_\_  
Age

\_\_\_\_\_  
Gender

\_\_\_\_\_  
Test Date

61. 0 1 2 3 4	31. 0 1 2 3 4	1. 0 1 2 3 4
62. 0 1 2 3 4	32. 0 1 2 3 4	2. 0 1 2 3 4
63. 0 1 2 3 4	33. 0 1 2 3 4	3. 0 1 2 3 4
64. 0 1 2 3 4	34. 0 1 2 3 4	4. 0 1 2 3 4
65. 0 1 2 3 4	35. 0 1 2 3 4	5. 0 1 2 3 4
66. 0 1 2 3 4	36. 0 1 2 3 4	6. 0 1 2 3 4
67. 0 1 2 3 4	37. 0 1 2 3 4	7. 0 1 2 3 4
68. 0 1 2 3 4	38. 0 1 2 3 4	8. 0 1 2 3 4
69. 0 1 2 3 4	39. 0 1 2 3 4	9. 0 1 2 3 4
70. 0 1 2 3 4	40. 0 1 2 3 4	10. 0 1 2 3 4
71. 0 1 2 3 4	41. 0 1 2 3 4	11. 0 1 2 3 4
72. 0 1 2 3 4	42. 0 1 2 3 4	12. 0 1 2 3 4
73. 0 1 2 3 4	43. 0 1 2 3 4	13. 0 1 2 3 4
74. 0 1 2 3 4	44. 0 1 2 3 4	14. 0 1 2 3 4
75. 0 1 2 3 4	45. 0 1 2 3 4	15. 0 1 2 3 4
76. 0 1 2 3 4	46. 0 1 2 3 4	16. 0 1 2 3 4
77. 0 1 2 3 4	47. 0 1 2 3 4	17. 0 1 2 3 4
78. 0 1 2 3 4	48. 0 1 2 3 4	18. 0 1 2 3 4
79. 0 1 2 3 4	49. 0 1 2 3 4	19. 0 1 2 3 4
80. 0 1 2 3 4	50. 0 1 2 3 4	20. 0 1 2 3 4
81. 0 1 2 3 4	51. 0 1 2 3 4	21. 0 1 2 3 4
82. 0 1 2 3 4	52. 0 1 2 3 4	22. 0 1 2 3 4
83. 0 1 2 3 4	53. 0 1 2 3 4	23. 0 1 2 3 4
84. 0 1 2 3 4	54. 0 1 2 3 4	24. 0 1 2 3 4
85. 0 1 2 3 4	55. 0 1 2 3 4	25. 0 1 2 3 4
86. 0 1 2 3 4	56. 0 1 2 3 4	26. 0 1 2 3 4
87. 0 1 2 3 4	57. 0 1 2 3 4	27. 0 1 2 3 4
88. 0 1 2 3 4	58. 0 1 2 3 4	28. 0 1 2 3 4
89. 0 1 2 3 4	59. 0 1 2 3 4	29. 0 1 2 3 4
90. 0 1 2 3 4	60. 0 1 2 3 4	30. 0 1 2 3 4

## APPENDIX I

### World Health Organization Quality of Life (WHOQOL)-BREF

#### Instructions

This questionnaire asks how you feel about your quality of life, health, or other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last two weeks. For example, thinking about the last two weeks, a question might ask:

*For  
office  
use*

<i>(Please circle the number)</i>				
Not at all	A little	Moderately	Mostly	Completely

Do you get the kind of support from others that you need?

1                      2                      3                      4                      5

You should circle the number that best fits how much support you got from others over the last two weeks. So you would circle the number 4 if you got a great deal of support from others.

*For  
office  
use*

<i>(Please circle the number)</i>				
Not at all	A little	Moderately	Mostly	Completely

Do you get the kind of support from others that you need?

1                      2                      3                      4                      5



You would circle number 1 if you did not get any of the support that you needed from others in the last two weeks.

*For  
office  
use*

Do you get the kind of  
support from others that  
you need?

<i>(Please circle the number)</i>				
Not at all	A little	Moderately	Mostly	Completely

1

2

3

4

5

Please read each question, assess your feelings, and circle the number on the scale that gives the best answer for you for each question.

		<i>(Please circle the number)</i>				
<i>For office use</i>		Very poor	Poor	Neither poor nor good	Good	Very Good
G1 / G1.1	1. How would you rate your quality of life?	1	2	3	4	5

		<i>(Please circle the number)</i>				
<i>For office use</i>		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
G4 / G2.3	2. How satisfied are you with your health?	1	2	3	4	5

The following questions ask about **how much** you have experienced certain things in the last two weeks.

		<i>(Please circle the number)</i>				
<i>For office use</i>		Not at all	A little	A moderate amount	Very much	An extreme amount
F1.4 / F1.2.5	3. To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
F11.3 / F13.1.4	4. How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
F4.1 / F6.1.2	5. How much do you enjoy life?	1	2	3	4	5

		<i>(Please circle the number)</i>				
<i>For office use</i>		Not at all	A little	A moderate amount	Very much	An extreme amount
		1	2	3	4	5
F24.2 / 6. F29.1.3	To what extent do you feel your life to be meaningful?					

		<i>(Please circle the number)</i>				
<i>For office use</i>		Not at all	Slightly	A Moderate amount	Very much	Extremely
		1	2	3	4	5
F5.2 / 7. F7.1.6	How well are you able to concentrate?					
F16.1 / 8. F20.1.2	How safe do you feel in your daily life?					
F22.1 / 9. F27.1.2	How healthy is your physical environment?					

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

		<i>(Please circle the number)</i>				
<i>For office use</i>		Not at all	A little	Moderately	Mostly	Completely
		1	2	3	4	5
F2.1 / 10. F2.1.1	Do you have enough energy for everyday life?					
F7.1 / 11. F9.1.2	Are you able to accept your bodily appearance?					
F18.1 / 12. F23.1.1	Have you enough money to meet your needs?					

*For  
office  
use*

<i>(Please circle the number)</i>				
Not at all	A little	Moderately	Mostly	Completely

F20.1 / 13. How available to  
F25.1.1 you is the  
information that  
you need in your  
day-to-day life?

1 2 3 4 5

F21.1 / 14. To what extent do  
F26.1.2 you have the  
opportunity for  
leisure activities?

1 2 3 4 5

*For  
office  
use*

<i>(Please circle the number)</i>				
Very poor	Poor	Neither poor nor well	Well	Very well

F9.1 / 15. How well are you  
F11.1.1 able to get around?

1 2 3 4 5

The following questions ask you to say how **good** or **satisfied** you have felt about various aspects of your life over the last two weeks.

*For  
office  
use*

<i>(Please circle the number)</i>				
Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

F3.3 / 16. How satisfied  
F4.2.2 are you with  
your sleep?

1 2 3 4 5

F10.3 / 17. How satisfied  
F12.2.3 are you with  
your ability to  
perform your  
daily living  
activities?

1 2 3 4 5

		(Please circle the number)				
		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
<i>For office use</i>						
F12.4 / 18. F16.2.1	How satisfied are you with your capacity for work?	1	2	3	4	5
F6.4 / 19. F8.2.2	How satisfied are you with your abilities?	1	2	3	4	5
F13.3 / 20. F17.2.3	How satisfied are you with your personal relationships?	1	2	3	4	5
F15.3 / 21. F3.2.1	How satisfied are you with your sex life?	1	2	3	4	5
F14.4 / 22. F18.2.5	How satisfied are you with the support you get from your friends?	1	2	3	4	5
F17.3 / 23. F21.2.2	How satisfied are you with the conditions of your living place?	1	2	3	4	5
F19.3 / 24. F24.2.1	How satisfied are you with your access to health services?	1	2	3	4	5
F.23.3 / 25. F28.2.2	How satisfied are you with your mode of transportation?	1	2	3	4	5

The following question refers to **how often** you have felt or experienced certain things in the last two weeks.

*For  
office  
use*

F8.1 / 26. How often do you  
F10.1.2 have negative  
feelings, such as  
blue mood, despair,  
anxiety, depression?

<i>(Please circle the number)</i>				
<b>Never</b>	<b>Seldom</b>	<b>Quite often</b>	<b>Very often</b>	<b>Always</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

How long did it take to fill out this  
form?

---

## APPENDIX J

### Recovery Assessment Scale

Instructions: Below is a list of statements that describe how people sometimes feel about themselves and their lives. Please read each one carefully and circle the number to the right that best describes the extent to which you agree or disagree with the statement. Circle only one number for each statement and do not skip any items.

	<u>Strongly Disagree</u>	<u>Dis- agree</u>	<u>Not Sure</u>	<u>Agree</u>	<u>Strongly Agree</u>
1. I have a desire to succeed	1	2	3	4	5
2. I have my own plan for how to stay or become well	1	2	3	4	5
3. I have goals in life that I want to reach	1	2	3	4	5
4. I believe I can meet my current personal goals	1	2	3	4	5
5. I have a purpose in life	1	2	3	4	5
6. Even when I don't care about myself, other people do	1	2	3	4	5
7. I understand how to control the symptoms of my mental illness	1	2	3	4	5
8. I can handle it if I get sick again	1	2	3	4	5
9. I can identify what triggers the symptoms of my mental illness	1	2	3	4	5
10. I can help myself become better	1	2	3	4	5

	<u>Strongly Disagree</u>	<u>Dis- agree</u>	<u>Not Sure</u>	<u>Agree</u>	<u>Strongly Agree</u>
11. Fear doesn't stop me from living the way I want to	1	2	3	4	5
12. I know that there are mental health services that do help me	1	2	3	4	5
13. There are things that I can do that help me deal with unwanted symptoms	1	2	3	4	5
14. I can handle what happens in my life	1	2	3	4	5
15. I like myself	1	2	3	4	5
16. If people really knew me, they would like me	1	2	3	4	5
17. I am a better person than before my experience with mental illness	1	2	3	4	5
18. Although my symptoms may get worse, I know I can handle it	1	2	3	4	5
19. If I keep trying, I will continue to get better	1	2	3	4	5
20. I have an idea of who I want to become	1	2	3	4	5
21. Things happen for a reason	1	2	3	4	5
22. Something good will eventually happen	1	2	3	4	5
23. I am the person most responsible for my own improvement	1	2	3	4	5
24. I'm hopeful about the future	1	2	3	4	5
25. I continue to have new interests	1	2	3	4	5
26. It is important to have fun	1	2	3	4	5



	<u>Strongly Disagree</u>	<u>Dis- agree</u>	<u>Not Sure</u>	<u>Agree</u>	<u>Strongly Agree</u>
27. Coping with my mental illness is no longer the main focus of my life	1	2	3	4	5
28. My symptoms interfere less and less with my life	1	2	3	4	5
29. My symptoms seem to be a problem for shorter periods of time each time they occur	1	2	3	4	5
30. I know when to ask for help	1	2	3	4	5
31. I am willing to ask for help	1	2	3	4	5
32. I ask for help, when I need it	1	2	3	4	5
33. Being able to work is important to me	1	2	3	4	5
34. I know what helps me get better	1	2	3	4	5
35. I can learn from my mistakes	1	2	3	4	5
36. I can handle stress	1	2	3	4	5
37. I have people I can count on	1	2	3	4	5
38. I can identify the early warning signs of becoming sick	1	2	3	4	5
39. Even when I don't believe in myself, other people do	1	2	3	4	5
40. It is important to have a variety of friends	1	2	3	4	5
41. It is important to have healthy habits	1	2	3	4	5

## APPENDIX K

### Letter to Consumers

Dear NAMI members,

To those who have had or currently have a severe mental illness, I would like to invite you to help contribute to research on recovery from mental illness by participating in a current study.

Historically recovery has been thought of as an outcome – when symptoms are no longer present. New definitions of recovery involve living a productive and fulfilling life despite having a disability. Recovery is a way to learn how to live a fulfilling life with symptoms. In order to help individuals experience recovery, more information about recovery is needed.

The purpose of this study is to develop a questionnaire to measure an individual's recovery from mental illness. This new questionnaire will help people with mental illness and mental health professionals to understand the level of progress in recovery and to determine what factor or factors of recovery individuals need to focus on to help in the recovery process. Your contribution will assist in the development of this measure, which will help individuals with mental illness in the future through their process of recovery.

Individuals who choose to be a part of this project will fill out ten surveys relating to one's own recovery from mental illness. Completion of the surveys should take only one hour.

Interested individuals can request a survey packet at NAMI-Montgomery County meetings or by contacting Jennifer Guthrie at [jenntng2000@yahoo.com](mailto:jenntng2000@yahoo.com), Theresa Hintze at [mayothem@notes.udayton.edu](mailto:mayothem@notes.udayton.edu), or Dr. Roger N. Reeb by phone (937) 229-2395 or by e-mail [roger.reeb@notes.udayton.edu](mailto:roger.reeb@notes.udayton.edu).

**Note:** we are studying degrees of recovery from mental illness and are not evaluating you personally in any way. Your name will not be on any document in this study and we will not ask you to provide your name. This study is **COMPLETELY ANONYMOUS** and you will not be identified in any way. Your responses will be kept completely confidential and will be identified only by a participant number.

If you have any questions please do not hesitate to contact Theresa Hintze at (630) 947-3265 or [mayothem@notes.udayton.edu](mailto:mayothem@notes.udayton.edu). Mrs. Hintze is a graduate student at the University of Dayton who is conducting this study as part of her master's thesis. Participants may also contact Dr. Roger N. Reeb, who is supervising this research. Dr. Reeb may be contacted by phone (937) 229-2395 or by e-mail at [roger.reeb@notes.udayton.edu](mailto:roger.reeb@notes.udayton.edu).

Sincerely,

Theresa Hintze  
Clinical Psychology Graduate Student  
University of Dayton

## APPENDIX L

### Informed Consent

#### Informed Consent to Participate in a Research Project

- Project Title:** A Study of Recovery from Mental Illness
- Investigator(s):** Theresa Hintze and Roger N. Reeb, PhD (faculty sponsor)
- Description of Study:** Participants will fill out ten surveys relating to one's own degree of recovery from mental illness. These surveys relate to hope, purpose in life, quality of life, control, self-esteem, and psychiatric symptoms. Also, participants will be asked to provide demographic information (such as age and gender). Participants can take these surveys home to complete them and should return the surveys to Jennifer Guthrie or Sue Hanna or at the next NAMI meeting.
- Adverse Effects and Risks:** No adverse effects have occurred in similar research. The only foreseeable risk of participating in this study is the possibility of experiencing some emotional distress when answering some questions.
- If such feelings arise, you may skip the question or stop taking the survey. Some questions ask about anxiety, depression, suicidal thoughts, physical pains, obsessions, compulsions, hostility, fear, paranoia, strange thoughts, and hearing or seeing things that are not there. Participants may contact the following agencies for help with distressing feelings that may arise during the study:

South Community Behavioral Healthcare  
3095 Kettering Blvd  
Dayton, OH 45439  
(937) 293-8300

Eastway Corporation  
600 Wayne Ave  
Dayton, OH 45410  
(800) 496-3776  
(937) 496-2000

Kettering Behavioral Medicine Center

5350 Lamme Rd  
Dayton, OH 45439  
(937) 534-4600

Samaritan Behavioral Health Locations:

Elizabeth Place  
601 Edwin C. Moses Blvd.  
Dayton, OH 45408  
(937) 224-4646

PO Box 267  
2172A Rt. 127 North  
Eaton, OH 45320  
(937) 456-1915  
(800) 453-3386

4710 Old Troy Pike  
Huber Heights, OH 45424  
(937) 276-8333

For individuals who are experiencing suicidal thinking, it is strongly recommended that they contact the following:

Suicide Prevention Center

1-800-320-HELP (4357)  
(937) 229-7777

USA National Suicide Hotlines

1-800-SUICIDE      1-800-273-TALK  
(1-800-784-2433)    (1-800-273-8255)

Also, participants may experience boredom and/or eye fatigue from answering so many questions.

Duration of  
Study:

The study will take approximately one hour to complete.

Anonymity  
of Data:

You will be asked to provide your name on this form in order to let us know that you give consent to participate in this project. You will not be asked to provide your name anywhere else during this study. This form (with your name on it) will be turned in and stored separately from your answers to the questions in the packet. The investigators will have no way of knowing that your answers came from you. Your name will not be revealed in any document resulting from this study.

Contact Person: If participants have questions or problems during or after the study, they may contact Theresa Hintze at mayothem@notes.udayton.edu or (630) 947-3265. Mrs. Hintze is a graduate student at the University of Dayton who is conducting this study as part of her master's thesis. Participants may also contact Roger N. Reeb, PhD, who is supervising this master's thesis research. Dr. Reeb may be contacted by phone (937) 229-2395 or by e-mail roger.reeb@notes.udayton.edu.

If you have questions about your rights as a research participant you may also contact the interim chair of the Research Review and Ethics Committee at the University of Dayton, Susan Davis, PhD, by phone (937) 229-1345 or by e-mail susan.davis@notes.udayton.edu.

Consent to Participate: I have voluntarily decided to participate in this study. I understand that I can contact the investigator named above if I have any questions about this study, the procedures involved, and my participation. I also understand that I may voluntarily terminate my participation in this study at any time. In addition, I certify that I am 18 (eighteen) years of age or older.

---

Signature of Participant Date

---

Signature of Witness Date

## APPENDIX M

### Letter in Packet

Thank you for agreeing to participate in a study about recovery from mental illness! Your contribution will help other individuals with mental illness through their own process of recovery!

#### **Instructions:**

Please complete the surveys in the order that they are found in the packet.

Please do not put your name on any of the pages in this packet.

At the back of the packet there is a paper labeled "Debriefing form" which explains more about this project. Please do not read this until after you have completed the questionnaires. Also, you may keep this "debriefing form."

Once you are finished with the questionnaires, please put them back in the envelope, seal the envelope, and return the envelope, with the questionnaires inside, to either Jennifer Guthrie or Sue Hanna at NAMI-Montgomery County.

Thanks for your participation!

Theresa Hintze

## Demographics Form

1. What is your gender                      Male                      Female

3. What is the highest education you received?

None at all  
Elementary School  
High School  
College

5. According to the best of your knowledge, please indicate the diagnosis (or diagnoses) you currently have or have had previously:

Circle all that apply

- 87



- Schizoaffective disorder
- Schizophrenia
- Other (please specify): \_\_\_\_\_

Previous diagnosis/diagnoses (experienced earlier than 1 year ago):

Circle all that apply

- None
- Anxiety disorder
- Personality disorder
- Bipolar disorder
- Major depressive disorder
- Schizoaffective disorder
- Schizophrenia
- Other (please specify): \_\_\_\_\_

6. According to the best of your knowledge, please indicate current or previous medication(s) taken for the diagnoses indicated above.

Current medication (circle all that apply):

- None
- Antidepressants (for example: Zoloft, Prozac, Cymbalta)
- Antipsychotic (for example: Seroquil & Abilify)
- Antianxiety (for example: Xanax & Benzodiazepines)
- Mood stabilizers (for example: Depakote & Lithium)
- Other (please specify): \_\_\_\_\_
- I take medication, but I don't know what it is called

Previous medication (circle all that apply):

- None
- Antidepressants (for example: Zoloft, Prozac, Cymbalta)
- Antipsychotic (for example: Seroquil & Abilify)
- Antianxiety (for example: Xanax & Benzodiazepines)
- Mood stabilizers (for example: Depakote & Lithium)
- Other (please specify): \_\_\_\_\_
- I take medication, but I don't know what it is called

## APPENDIX O

### Debriefing Form

#### A Study of Recovery from Mental Illness

##### **Information about the Study:**

The purpose of this study is to develop a questionnaire to measure an individual's degree of recovery from mental illness. This study looks at what factors are important to recovery from mental illness. The surveys you completed measured hope, purpose in life, well-being, self-esteem, sense of control and empowerment, coping, symptoms of mental illness, and degree of recovery. The researchers expect to find that hope, purpose in life, and a sense of control are important to recovery from mental illness. Based upon the results of this study, the researchers will put together a new questionnaire to measure degrees of recovery. This new questionnaire will be useful for consumers and mental health professionals to determine what factor or factors of recovery individuals need to focus on to help the recovery process. Not much research has been done on recovery questionnaires and your contribution will assist in the development of a new measure, which will help future consumers in their process of recovery. Preliminary research on recovery highlights the importance of hope in the recovery process. Hope is the belief that events in one's life will turn out positively. Research suggests that having a positive outlook about one's illness helps people in their process of recovery.

Some of the items that you completed asked about such things as anxiety ("spells of terror or panic"), depression ("crying easily"), suicidality ("thoughts of ending your life"), somatization ("pains in heart or chest"), obsessions and compulsions ("having to repeat the same actions, such as touching, counting, or washing"), hostility ("having urges to beat, injure, or harm someone"), phobia ("feeling afraid to go out of your house alone"), paranoid ideation ("having ideas or beliefs that others do not share"), and psychoticism ("hearing voices that other people do not hear"). People who endorse these items often need or benefit from receiving mental health services. If you endorsed one or more of these items and are already in treatment, then it would be important to discuss these matters with your mental health practitioner. Individuals who endorsed these items (or similar items) but are not currently in treatment may benefit from obtaining treatment, and they may do so by contacting a local agency such as one of the following:

South Community Behavioral Healthcare  
3095 Kettering Blvd  
Dayton, OH 45439  
(937) 293-8300

Eastway Corporation

600 Wayne Ave  
Dayton, OH 45410  
(800) 496-3776  
(937) 496-2000

Kettering Behavioral Medicine Center

5350 Lamme Rd  
Dayton, OH 45439  
(937) 534-4600

Samaritan Behavioral Health Locations:

Elizabeth Place  
601 Edwin C. Moses Blvd.  
Dayton, OH 45408  
(937) 224-4646

PO Box 267  
2172A Rt. 127 North  
Eaton, OH 45320  
(937) 456-1915  
(800) 453-3386

4710 Old Troy Pike  
Huber Heights, OH 45424  
(937) 276-8333

For individuals who are experiencing suicidal thinking, it is strongly recommended that they contact the one of the following:

Suicide Prevention Center

1-800-320-HELP (4357)  
(937) 229-7777

USA National Suicide Hotlines

1-800-SUICIDE	1-800-273-TALK
(1-800-784-2433)	(1-800-273-8255)

**Assurance of Privacy:**

We are studying degrees of recovery from mental illness and are not evaluating you personally in any way. This study is **COMPLETELY ANONYMOUS** and you cannot be identified in any way. Your responses will be kept completely confidential and will be identified only by a participant number.

**Contact Information:**

If participants have questions or problems after the study, they may contact University of Dayton graduate student, Theresa Hintze, at [mayothem@notes.udayton.edu](mailto:mayothem@notes.udayton.edu) or (630) 947-3265. Participants may also contact Roger N. Reeb, Ph.D., who is supervising this research, by phone (937) 229-2395 or by e-mail [roger.reeb@notes.udayton.edu](mailto:roger.reeb@notes.udayton.edu).

If you have questions about your rights as a research participant you may also contact the interim chair of the Research Review and Ethics Committee at the University of Dayton, Susan Davis, Ph.D. by phone (937) 229-1345 or by e-mail [susan.davis@notes.udayton.edu](mailto:susan.davis@notes.udayton.edu).

Thank you for your participation.

**References:**

For further information about this area of recovery research, you may consult the following references:

Corrigan, P. W., Giffort, D., Rashid, F., Leary, M., & Okeke, I. (1999). Recovery as a psychological construct. *Community Mental Health Journal*, 35(3), 231-239.

Corrigan, P. W., & Ralph, R. O. (Eds.) (2005). *Recovery from mental illness*. Washington, D.C.: American Psychological Association.

Corrigan, P. W., Salzer, M., Ralph, R. O., Sangster, Y., & Keck, L. (2004). Examining the factor structure of the recovery assessment scale. *Schizophrenia Bulletin*, 30(4), 1035-1041.

Jacobson, N., & Greenley, D. (2001). What is recovery? A conceptual model and explication. *Psychiatric Services*, 52(4), 482-485.

## APPENDIX P

### Participant Data

Table 1

*Raw Scores from Recovery Measures*

Subject	LAP-R			RSES	Empowerment	LOC	Herth	Adult
	PMI	ET	CSES				Hope	Disp
1	84	94	180	20	2.92	7	38	27
2	52	45	118	18	2.64	13	33	22
3	85	104	133	19	3.00	6	44	26
4	95	124	43	17	2.64	10	44	29
5	84	123	226	15	3.20	1	39	26

*Note.* LAP-R = Life Attitude Profile-Revised; PMI = personal meaning index; ET = existential transcendence; CSES = coping self-efficacy scale; LOC = Rotter's internal-external locus of control scale

Table 2

*Scores from Outcome Measures*

Subject	SCL-90-R*			WHOQOL-BREF**				RAS**
	GSI	PSDI	PST	Physical	Psychological	Social	Environment	
1	42	42	45	26	26	13	36	175
2	46	52	44	29	17	9	34	140
3	42	41	45	22	21	9	31	169
4	77	71	75	18	17	10	29	136
5	37	38	41	27	22	11	36	190

*Note.* SCL-90-R = symptom checklist 90 revised; GSI = Global Severity Index; PST = Positive Symptom Total; PSDI = Positive Symptom Distress Index; WHOQOL-BREF = World Health Organization Quality of Life – Brief version; RAS = Recovery Assessment Scale

\*Reported scores are T scores

\*\*Reported scores are raw scores

## APPENDIX Q

### Sample Measure of Recovery

Note: Items similar to the ones below may be useful in constructing a measure that assesses the constructs of recovery: hope, meaning in life, and perceived control. The items listed below are selected to provide readers with example items that could be used for inclusion in a new measure of recovery. Before future researchers use any items, it would be necessary to obtain appropriate permission, due to possible copyright regulations.

Instructions: For each item, circle a number from 0 to 10 that best represents your feelings (strongly disagree = 0 and strongly agree = 10). Please circle only one response for each statement.

1. When things aren't going well, I am confident that I can break an upsetting problem down into smaller parts.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

2. I feel powerless most of the time.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

3. People should try to live their lives the way they want to.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

4. I have a mission in life that gives me a sense of direction.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

5. My past experiences have prepared me well for my future.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

6. All in all, I am inclined to feel like a failure.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

7. People have a right to make their own decisions, even if they are bad ones.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

8. I have a clear understanding of the ultimate meaning in life

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

9. Most of the misfortunes in my life were due to bad luck.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree



10. I feel that some element which I can't quite define is missing from my life.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

11. I feel scared about the future.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

12. When things aren't going well, I am confident that I can make unpleasant thoughts go away.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

13. I can pretty much determine what will happen in my life

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

14. I can see possibilities in the midst of difficulties.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

15. People are limited only by what they think possible.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

16. I take a positive attitude towards myself.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

17. I have been aware of an all consuming and powerful purpose towards which my life has been directed.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

18. When things aren't going well, I am confident that I can get friends to help me with the things I need.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

19. I feel all alone

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

20. I am determined to achieve new goals in the future.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

21. I can think of many ways to get out of a jam.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

## APPENDIX R

### Sample Outcome Measure: Quality of Life

Note: Items similar to the ones below may be useful in constructing a measure that assesses the outcome measure of quality of life. The items listed below are selected to provide readers with example items that could be used for inclusion in a measure of quality of life. Before future researchers use any items, it would be necessary to obtain appropriate permission, due to possible copyright regulations.

Instructions: For each item, circle a number from 0 to 10 that best represents your feelings. Please circle only one response for each statement.

1. How would you rate your quality of life?

0	1	2	3	4	5	6	7	8	9	10
<b>Very Poor</b>										<b>Very Good</b>

2. How satisfied are you with your health?

0	1	2	3	4	5	6	7	8	9	10
<b>Very Poor</b>										<b>Very Good</b>

3. In the past two weeks (including today), how satisfied are you with your ability to perform your daily living activities?

0	1	2	3	4	5	6	7	8	9	10
<b>Very Dissatisfied</b>										<b>Very Satisfied</b>

4. In the past two weeks (including today), how satisfied are you with your abilities?

0	1	2	3	4	5	6	7	8	9	10
Very Dissatisfied										Very Satisfied

5. In the past two weeks (including today), how satisfied are you with your personal relationships?

0	1	2	3	4	5	6	7	8	9	10
Very Dissatisfied										Very Satisfied

6. In the past two weeks (including today), how safe do you feel in your daily life?

0	1	2	3	4	5	6	7	8	9	10
Very Unsafe										Very Safe

## APPENDIX S

### Sample External Criterion Measure of Recovery

Note: Items similar to the ones below may be useful in constructing a measure that assesses the external criterion measure of recovery. The items listed below are selected to provide readers with example items that could be used for inclusion in a measure of recovery. Before future researchers use any items, it would be necessary to obtain appropriate permission, due to possible copyright regulations.

Instructions: For each item, circle a number from 0 to 10 that best represents your feelings (strongly disagree = 0 and strongly agree = 10). Please circle only one response for each statement.

1. I am hopeful about my future.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

2. I ask for help when I need it.

0	1	2	3	4	5	6	7	8	9	10
Strongly Disagree										Strongly Agree

3. I believe that I can meet my current personal goals.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

4. I have people that I can count on.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

5. My symptoms interfere less and less with my life.

0	1	2	3	4	5	6	7	8	9	10
Strongly										Strongly
Disagree										Agree

## APPENDIX T

### Groupings of Selected Recovery Items by Construct

#### **Hope**

##### **Adult Dispositional Hope Scale**

My past experiences have prepared me well for my future.

I can think of many ways to get out of a jam.

##### **Herth Hope Index**

I feel scared about the future.

I can see possibilities in the midst of difficulties.

I feel all alone.

#### **Meaning in Life**

##### **Life Attitude Profile-Revised**

I have a mission in life that gives me a sense of direction.

I have a clear understanding of the ultimate meaning in life.

I have been aware of an all consuming and powerful purpose towards which my life has been directed.

I feel that some element which I can't quite define is missing from my life.

I am determined to achieve new goals in the future.

## **Perceived Control**

### **Coping and Self-Efficacy**

#### **Coping Self-Efficacy Scale**

When things aren't going well, I am confident that I can break an upsetting problem down into smaller parts.

When things aren't going well, I am confident that I can make unpleasant thoughts go away.

When things aren't going well, I am confident that I can get friends to help me with the things I need.

### **Empowerment**

#### **Empowerment Scale**

I feel powerless most of the time.

Most of the misfortunes in my life were due to bad luck.

People have a right to make their own decisions, even if they are bad ones.

People should try to live their lives the way they want to.

People are limited only by what they think possible.

I can pretty much determine what will happen in my life.

### **Self-Esteem**

#### **Rosenberg Self-Esteem Scale**

All in all, I am inclined to feel like a failure.

I take a positive attitude towards myself.



## Appendix U

### Groupings of Selected Outcome Items by Construct

#### **Quality of Life**

##### **World Health Organization Quality of Life - BREF**

How would you rate your quality of life?

How satisfied are you with your health?

In the past two weeks (including today), how satisfied are you with your ability to perform your daily living activities?

In the past two weeks (including today), how satisfied are you with your abilities?

In the past two weeks (including today), how satisfied are you with your personal relationships?

In the past two weeks (including today), how safe do you feel in your daily life?

## Appendix V

### Groupings of Selected External Criterion Items by Construct

#### **Recovery**

##### **Recovery Assessment Scale**

I am hopeful about my future.

I ask for help when I need it.

I believe that I can meet my current personal goals.

I have people that I can count on.

My symptoms interfere less and less with my life.

## APPENDIX W

### Selected Recovery Items as Presented in their Original Psychometric Instrument

#### **Hope**

##### **Adult Dispositional Hope Scale**

My past experiences have prepared me well for my future.

I can think of many ways to get out of a jam.

##### **Herth Hope Index**

I feel scared about the future.

I can see possibilities in the midst of difficulties.

I feel all alone.

#### **Meaning in Life**

##### **Life Attitude Profile-Revised**

I have a mission in life that gives me a sense of direction.

I have a clear understanding of the ultimate meaning in life.

I have been aware of an all consuming and powerful purpose towards which my life has been directed.

I feel that some element which I can't quite define is missing from my life.

I am determined to achieve new goals in the future.

## **Perceived Control**

### **Coping and Self-Efficacy**

#### **Coping Self-Efficacy Scale**

Break an upsetting problem down into smaller parts.

Make unpleasant thoughts go away.

Get friends to help you with the things you need.

### **Empowerment**

#### **Empowerment Scale**

I feel powerless most of the time.

Most of the misfortunes in my life were due to bad luck.

People have a right to make their own decisions, even if they are bad ones.

People should try to live their lives the way they want to.

People are limited only by what they think possible.

I can pretty much determine what will happen in my life.

### **Self-Esteem**

#### **Rosenberg Self-Esteem Scale**

All in all, I am inclined to feel like a failure.

I take a positive attitude towards myself.

## Appendix X

### Selected Outcome Items as Presented in their Original Psychometric Instrument

#### **Quality of Life**

##### **World Health Organization Quality of Life - BREF**

How would you rate your quality of life?

How satisfied are you with your health?

How satisfied are you with your ability to perform your daily living activities?

How satisfied are you with your abilities?

How satisfied are you with your personal relationships?

How safe do you feel in your daily life?

## Appendix Y

### Selected External Criterion Items as Presented in their Original Psychometric Instrument

#### **Recovery**

##### **Recovery Assessment Scale**

I am hopeful about my future

I ask for help when I need it

I believe that I can meet my current personal goals

I have people that I can count on.

My symptoms interfere less and less with my life

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