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The Influence of Participation in the Healthy Choices Program for Community Dwelling Individuals with Serious Mental Illness

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THE INFLUENCE OF PARTICIPATION IN THE HEALTHY CHOICES
PROGRAM FOR COMMUNITY DWELLING INDIVIDUALS WITH
SERIOUS MENTAL ILLNESS

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements for the
degree of Doctor of Philosophy in Nursing
in the Graduate School of
Binghamton University
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2018

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ABSTRACT

Due to the prevalence of serious mental illness, both nationally and statewide, creation of sufficient community-based services that focus on mental and physical health would help to meet a need for a comprehensive approach to mental health care treatment and quality of life (QoL). With the creation of the *Healthy Choices* program in the Binghamton community, the principal investigator (PI) examined how participation in a community-based healthy living program affects perception of QoL in individuals with serious mental illness. The *Healthy Choices* program is a community-based program that assists participants with serious mental illness to make healthy lifestyle choices. Although perception of QoL has been previously measured in populations with serious mental illness, it is essential to evaluate this perception as an outcome that stems from participation in a community-based healthy living program.

The purpose of this study is to evaluate the impact of participation in the *Healthy Choices* program on perception of QoL on the participants of the program. A mixed methods approach to data collection was implemented for this study. The Wisconsin Quality of Life Index (WQLI) client questionnaire and the World Health Organization Disability Assessment Schedule (WHODAS) was administered to subjects who participated in the *Healthy Choices* program along with Mental Wellness groups (HCMW) and subjects who only participated in Mental Wellness workshops (MW-only) offered by the Mental Health Association of the Southern Tier. Qualitative data was collected via administration of a structured interview questionnaire and was administered to both groups.

Quantitative findings were not significant in supporting that participation in the *Healthy Choices* program improved perception of QoL and level of disability. However, qualitative findings were significant in supporting that participants in the *Healthy Choices* program developed a perception of satisfaction in terms of physical and mental health and ability to make healthier lifestyles choices. The *Healthy Choices* participants also perceived that making lifestyle choices, that promoted physical and mental health, assisted them in feeling less physically and psychologically disabled.

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"All that I am today is by your grace." - Krishna Das

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CHAPTER 1

Introduction

Since the deinstitutionalization of the mentally ill, community-based programs have become an integral component in the management of mental health among this population. In the United States, approximately 18.1% of adults 18 and older are afflicted with a serious mental illness (Hedden, Kennet, Lipari, Medley & Tice, 2015). In New York State, approximately 3.9% of adults 18 and older are diagnosed with a serious mental illness (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015). Approximately 44% of Medicaid associated mental health expenditures in New York State were generated in the inpatient mental health setting, with 35% generated in the outpatient setting (New York State Office of Mental Health [NYSOMH], 2015). In terms of Medicaid service utilization, 58.3% of Medicaid utilization was generated in the form of non-behavioral health services (NYSOMH, 2015). Non-behavioral health services include care that addresses emergency and inpatient medical-surgical care. Due to the prevalence of serious mental illness, both nationally and statewide, creation of sufficient community-based services that focus on mental and physical health would help to meet a need for a comprehensive approach to mental health care treatment and quality of life (QoL). Implementation of community-based healthy living programs would assist in improving perception of QoL among those with serious mental illness and prevent hospitalizations. In order to determine the efficacy of these community-based healthy living programs on perception of QoL, outcomes must be evaluated in order to establish

the relationship between participation in these community programs and perception of QoL.

Perception of QoL is an essential component of health assessment in the determination of well-being in an individual. Researchers who have studied QoL described this concept as having multidimensional components that are based on the subjective and objective experience of an individual (Pitkänen, 2010). Examination of subjective and objective components that comprise perception of QoL are essential in the interpretation of perception of well-being. Subjective components can be defined as factors that appraise life experiences. Factors that contribute to the subjectivity of QoL perception include an individual's sense of happiness, satisfaction and general well-being (Pitkänen, 2010). Objective components can be considered as factors that address the phenomena and have an effect on the subjective experience of the individual and include social functioning, living conditions, educational and financial resources, employment, housing and participation in leisure activities (Pitkänen, 2010). However, it is known that perception of QoL can vary from person to person.

Overall, the perception of QoL is commonly interpreted as a positive psychological outlook and satisfaction with general well-being. The analysis of perception of QoL can assist researchers in meeting the needs of vulnerable populations, whether they be mental, physical or spiritual in nature. Understanding individual perceptions of QoL among vulnerable populations could assist in providing services that improve perception of QoL in this group.

Quality of Life in the Mental Health Population

Evaluating perception of QoL among populations with serious mental illness is

essential in understanding factors that negatively or positively influence perceptions of QoL. Factors that have been shown to affect perception of QoL among individuals with serious mental illness include empowerment, self-stigma and social support (Lundberg, Hansson, Wentz & Björkman, 2008). Empowerment in the mental health community has been defined as the level of perceived control over social factors. Individuals with mental health conditions who were provided with a sense of personal control over social factors developed a sense of empowerment and adequate social support in their community (Nelson, Sylvestre, Aubry, George & Trainor, 2007). This contributed to the ability of people with serious mental illness to better adapt to community-based living and an improvement in self-reported satisfaction and perception of QoL (Nelson et al., 2007).

Researchers who have studied the perceptions of QoL among individuals with serious mental illness have recognized the relationship between self-stigma and negative QoL outcomes. The term self-stigma is defined as the incorporation of negative attitudes towards mental illness into an individual's self-concept that results in low self-esteem (Rüsch, Corrigan, Todd & Bodenhausen, 2010). The presence of self-stigma among people with serious mental illness has been associated with negative outcomes, such as lower perceived QoL and self-esteem. Researchers have also associated the benefits of social support among people with serious mental illness with improved perception of QoL. Presence of social support among this population has been associated with improved mental and physical health, adjustment and personal development (Ribas & Lam, 2010). The presence of social support among those with serious mental illness has demonstrated improved perception of QoL in terms of satisfaction with the provision of mental health services in the community setting. The relationship between social support

and perception of QoL has also been beneficial in investigating cultural factors that can positively or negatively affect perceptions of QoL among populations with serious mental illness.

Problem Statement

Although perception of QoL has been previously measured in populations with serious mental illness, it is essential to evaluate this perception as an outcome that stems from participation in a community-based healthy living program. Since the deinstitutionalization of the mentally ill, community-based programs that assist in the treatment of this population have been essential in the management of this group to community living (Lehman, 1988). Environmental and social factors that have presented as challenges to this population play an integral role in having a positive or negative effect on perception of QoL. Community-based healthy living programs serve to mediate the environmental, social and treatment factors that may alter perception of QoL for this population. Community-based healthy living programs that have a positive impact on perception of QoL may also assist in cost-containment in terms of mental health care expenditures as a result of mental health treatment in the hospital setting. Factors that contribute to an improvement in perception of QoL, such as availability of community support services, have been associated with a reduction in length of hospital stay among people with serious mental illness (Chamberlain, Rapp, Ridgway, Lee & Boezio, 1999). Community-based programs that focus on promoting healthy lifestyle choices and improvement in perception of QoL may also provide a comprehensive approach to mental and physical health treatment in the community. This in turn could further enhance adaptation to community living and prevent hospitalizations for individuals with

serious mental illness. In order to determine if participation in a community-based healthy living program has a positive effect on perception of QoL for people with serious mental illness, subjective and objective data must be examined in order to establish the relationship between participation in a community-based healthy living program and perception of QoL.

The primary investigator (PI) will examine how participation in a peer-based community healthy living program, entitled the *Healthy Choices* program, affects perception of QoL in individuals with serious mental illness. The *Healthy Choices* program is a community-based program that assists participants with serious mental illness to make healthy lifestyle choices (See Appendix K). The main focus of the *Healthy Choices* program is to promote physical health through workshops that promote physical activity and assist clients with making healthy food choices. Another focus of the *Healthy Choices* program is to assist clients at the Mental Health Association of the Southern Tier (MHAST) with setting health goals and through peer-support assist these individuals in achieving these goals. Peer-support that is established as part of the *Healthy Choices* program also assists clients in maintaining health goals and healthy lifestyle choices. The *Healthy Choices* program was conceived in collaboration with MHAST as a project that originated from the PI's work for the Master's degree. The *Healthy Choices* program was adopted as a permanent program after the PI completed the Master's degree in order to complement the mental wellness programs facilitated by the staff at MHAST.

In order to examine perception of QoL through participation in the *Healthy Choices* program, subjective and objective measures were addressed with the implementation of

the Wisconsin Quality of Life Index (WQLI) client questionnaire and the World Health Organization Disability Assessment Schedule ([WHODAS]; World Health Organization, 2010). The administration of these instruments allowed the PI to determine whether a positive relationship exists between participation in the *Healthy Choices* program and improvement in perception of QoL.

For this study the WQLI client questionnaire was administered to clients who participated in the *Healthy Choices* program in order to measure perception of QoL. The WQLI caregiver questionnaire was not administered since there were no caregivers who participated in the study. The study was conducted in a facility that does not include mental health providers (i.e. Psychiatrist, Psychiatric Nurse Practitioners), therefore the WQLI provider questionnaire was not administered. An additional quantitative measure, the WHODAS, was administered in order to complement the WQLI client questionnaire and to determine if participation in the *Healthy Choices* program had an effect on level of disability. To support subjective measures, qualitative data were collected via administration of a structured interview questionnaire.

Rationale

In order to determine factors that positively or negatively affect perception of QoL, subjective and objective elements that comprise perception of QoL must be thoroughly examined. Evaluation of community programs that cater to individuals in the mental health community identify programs that are based on the improvement of outcomes such as perception of QoL. The subjective and objective data gathered, via the administration of the WQLI client questionnaire, from participants of the *Healthy Choices* program was assessed in order to measure perception of QoL. The WQLI client questionnaire

addresses data collected from the domains that are relevant to QoL in people with serious mental illness. These domains include general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment. To support subjective measures data were collected via the administration of a structured interview questionnaire. The subjective data gathered provided the PI with insight into the perspective or “lived experience” of clients who participate in the *Healthy Choices* program and their perception of QoL.

Purpose

The purpose of this study is to evaluate the impact of the *Healthy Choices* program on the QoL of the participants of the program. The participants of the *Healthy Choices* program include mentally ill clients who utilize community-based services provided by a local mental health agency in an Upstate New York County. The WQLI client questionnaire will be used to determine if participation in *Healthy Choices* would improve perception of QoL and satisfaction in specific domains of interest. These domains of interest include physical health, social support, activities and occupations, and symptoms/outlook. The implementation of the WHODAS would identify if participation in *Healthy Choices* has an effect on level of disability.

Hypotheses developed for this study include the following:

1. Clients who participated in *Healthy Choices* will have higher perception of QoL than those who participated only in Mental Wellness programs.

2. Clients who participated in *Healthy Choices* will have lower level of disability than those who participated in only in Mental Wellness programs.

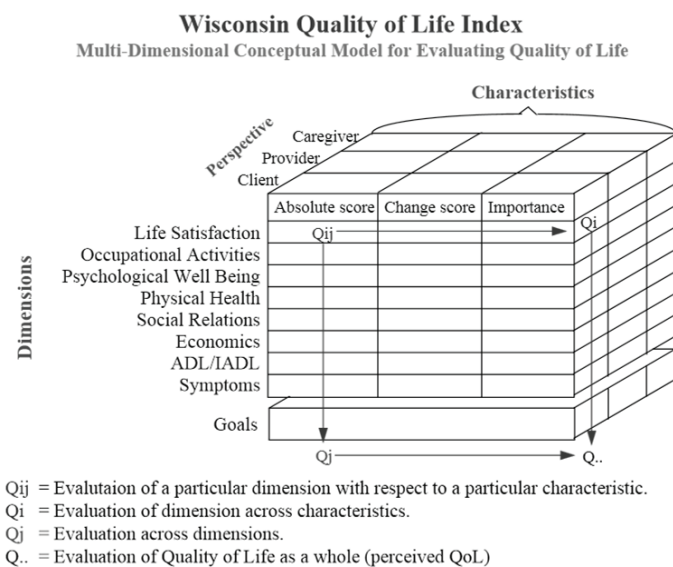
In order to expand upon the proposed hypotheses, specific research questions were identified in order to investigate additional aspects of perception of QoL that could be affected by participation in the *Healthy Choices* program. Research questions will address:

1. What is the relationship between participation in either type of mental health program and a participant's perceptions of physical health?
2. What is the relationship between peer-support in either type of mental health program and a participant's perceptions of relationships with others?
3. What is the relationship between participation in either type of mental health program and a participant's perceptions of engagement in activities and occupations?
4. What is the relationship between participation in either type of mental health program and a participant's perceptions of psychiatric symptom management?

Conceptual Framework

Marion Becker's theory on QoL will serve as the conceptual framework that will address perception of QoL in people with serious mental illness who participate in the *Healthy Choices* program. Becker adopted her theory on QoL based on the work of Carol Estwing Ferrans. Ferrans (1996), proposed QoL as pertaining to a sense of well-being that relates to an individual's satisfaction or dissatisfaction in the areas of health and functioning, psychological/spiritual wellness, social/economic conditions and family relationships. Becker, Diamond, and Sainfort (1993) defined QoL as a sense of well-

being that can stem from the satisfaction or dissatisfaction with life domains that are relevant to the client with serious mental illness. To provide a comprehensive and accurate approach to measuring perception of QoL, Becker emphasized the importance of including perspectives from the client's healthcare provider and caregiver. The presence of psychiatric symptoms could hinder the accuracy of client responses and perception of well-being (Becker et al., 1993). Therefore, with the inclusion of both provider and caregiver perspectives it would assist in supplementing client information to produce an accurate assessment of well-being (Becker et al., 1993). However, for this study the PI did not assess caregiver and provider perspectives.



Used with permission from Dr. Marion Becker

(Becker et al., 1993)

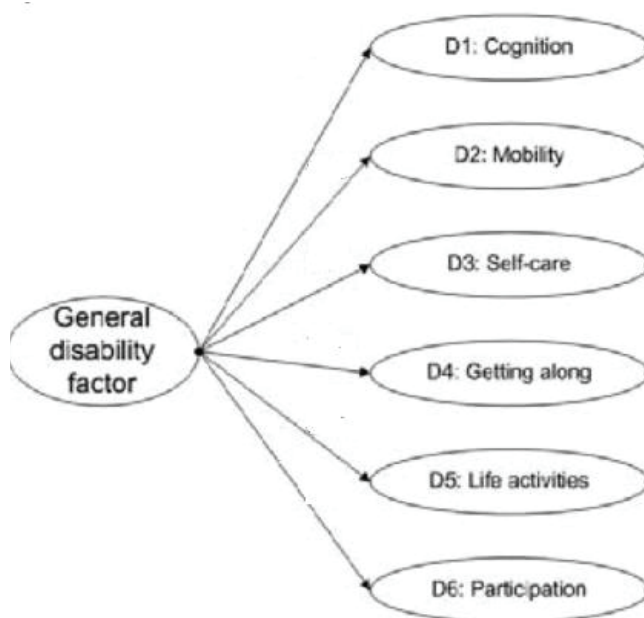
Becker et al. (1993), proposed in her QoL theory nine domains that contribute to a client's sense of well-being: general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment. Each domain is evaluated

individually in order to determine areas of significance that have an effect on the perception of QoL of the client (Becker et al., 1993). Becker, Shaw and Reib (1996) defined general life satisfaction as a measure that evaluates the client's level of satisfaction with general life conditions. This domain could include measuring satisfaction with living environment, housing, food, clothing, and mental health services. The domain of occupation and activities focuses on the client's daily activities related to work, school or mental health day programming (Becker et al., 1996). This domain could also include a focus on the capacity of the client to participate in daily work activities. Psychological well-being determines the client's current general emotional well-being and mental health at a given time. The domain of physical health examines the client's perspective on general physical health. The domain of social relations/support focuses on a client's satisfaction with social relationships. This domain also provides insight on a client's satisfaction on the amount of social support received by peers. The area of economics examines a client's satisfaction with monetary resources and control over finances. Activities of daily living evaluates the client's functional status and the ability to engage in independent living tasks (Becker et al., 1996). The domain of symptoms/outlook provides a subjective assessment of how psychiatric symptoms affect a client's QoL and functional ability. Goal attainment focuses on the client's achievement of mental health treatment goals and provides insight as to whether or not the client has achieved their goal. An advantage of Becker's theory is that measurements obtained may elucidate the effect of interactions among the domains on well-being, allowing for the prioritization of pertinent domains based on client need. This conceptual framework also

permits the measurement of QoL either over a period of time or from a single point in time.

To complement Becker's framework and to address level of disability, the theoretical underpinnings of the WHODAS will be discussed. Üstün, Kostanjsek, Chatterji and Rehm (2010) indicated that incorporating an instrument that identifies level of health and disability is pertinent in guiding researchers and clinicians on treatment interventions and strategies that would lead to successful outcomes for vulnerable populations.

Framework for World Health Organization Disability Assessment Schedule (WHODAS)



Üstün et al. (2010)

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Üstün et al. (2010) identified six domains that are pertinent to measuring disability including: cognition, mobility, self-care, getting along, life activities and participation in social or community activities. The domain of cognition assesses a client's communication and thinking activities. Specific areas assessed include concentrating,

remembering, problem solving, learning and communicating. Mobility assesses activities such as standing and moving around both inside and outside the home. The domain of self-care assesses hygiene, dressing, eating and staying alone. Getting along assesses interactions with others and difficulties that might be encountered due to the presence of a health condition. The domain of life activities assesses difficulty with daily activities. Activities can relate to functions that are associated with home or work. The domain of participation assesses social dimensions that involve community activities and barriers in the client's environment. With the integration of these elements into addressing disability status, researchers and clinicians are provided with a depiction of the various levels of disability that can be encountered with each client.

Concepts

1. **QoL.** QoL is a concept that is comprised of subjective and objective factors that contribute to an individual's perception of QoL. QoL can be perceived as having a positive psychological outlook and satisfaction with general well-being. Becker et al. (1993) define QoL as a sense of well-being that can stem from the satisfaction or dissatisfaction in life domains that are relevant to the client with a serious mental illness. These domains include: general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment. For this research, QoL was defined by calculating a score for the WQLI client questionnaire.
2. **Disability.** Üstün et al. (2010) defined disability as the decline of functioning within the domains of cognition, mobility, self-care, getting along, life activities

(household and work) and participation in social or community activities. For this research, level of psychiatric disability was defined by calculating a score via a 12-item WHODAS questionnaire.

3. **Lived Experience.** The concept of the “Lived Experience” will take a phenomenological approach in the collection of qualitative data. A phenomenological approach involves the exploration of an individual’s reality of life and examines the “life world” or “lived experiences” that describes a phenomenon as it appears to the person experiencing the phenomenon (Tuohy, Cooney, Dowling, Murphy, & Sixsmith, 2013). For this research, qualitative data were collected via a client structured interview and themes that relate to perception of QoL will be examined.

Design

This study utilized a non-experimental ex post facto design to examine the relationship between participation in the *Healthy Choices* program (HCMW) and perception of QoL. A control group that consists of clients who participated only in mental wellness programs (MW-only) was included for comparison. A convenience sample was used and a total of 16 subjects was recruited for the study. The subjects were recruited from the workshops that are available at MHAST and by telephone. A mixed methods approach to data collection was implemented to collect both quantitative and qualitative measures.

Study Population

For this study, the population of focus is individuals diagnosed with serious mental illness. A person with serious mental illness is classified as an individual who presents with a mental, behavioral, or emotional disorder that results in functional impairment that interferes with life activities and meets diagnostic criteria established in the *Diagnostic Statistical Manual of Mental Disorders* (SAMHSA, 2013). The study population also lives in the community and attends local outpatient mental health services. More specifically, serious mental illness diagnoses among this population may include Bipolar Disorder, Schizophrenia, Depression and Dissociative Identity Disorder. The population also includes persons classified as having dual-diagnoses, which is co-occurring mental illness with substance abuse.

Significance of the Study

Findings from this study contribute to a body of evidence that supports community-based programs based on improving perception of QoL in people with serious mental illness who are being managed in the community. Becker (1998) identified that cost constraints, poor perception of QoL and dissatisfaction with mental health services provided to individuals with serious mental illness contribute to poor adaptation to community living. Services that address these factors could improve perception of QoL in those managing serious mental illness in the community setting. Becker (1998) acknowledged that mental health professionals perceive QoL as a major goal of treatment in the care of mentally ill clients in the community and information related to QoL outcomes should be implemented to improve standards of care. Findings from this study may identify if participation in *Healthy Choices* would assist clients in improving social

support, management of psychiatric symptoms, physical health and engagement in occupational activities.

Assumptions

1. Becker's QoL theory will be useful in understanding factors that contribute to perception of QoL among individuals with serious mental illness.
2. Participants with serious mental illness will be able to articulate their perceptions of QoL.
3. The WQLI client questionnaire will measure perceptions of satisfaction that pertain to life domains proposed in Becker's Theory on QoL and contribute to perception of QoL.
4. The WHODAS will measure level of disability that pertains to the domains of cognition, mobility, self-care, getting along, life activities (household and work) and participation in social or community activities.
5. A structured interview provided to client subjects will collect qualitative information that addresses the "lived experience" of participants and their perception of QoL.

Limitations

1. Lack of interest on the part of subject or viewing the PI as an "outsider" may deter the individual from completing or responding to questions that measure perception of QoL.
2. The degree of cognitive impairment resulting from an individual's altered mental state can be considered a barrier in the assessment of QoL.

3. Use of convenience sampling may result in bias and cannot make results of the study generalizable to populations with serious mental illness in terms of establishing a correlation between participation in the *Healthy Choices* program and perception in QoL.
4. Interviews will be limited to specific days/times and may result in lack of availability of the participants or caregivers to engage in the data collection process.
5. Since the PI is the creator of the *Healthy Choices* program bias could result when evaluating the effectiveness of the program. The potential for bias may also occur as a result of subjects identifying the PI as the creator of the *Healthy Choices* program which could potentially lead to providing responses that may be favorable to the PI.

Summary

Providing comprehensive community-based care for persons with mental health issues continues to be a difficult endeavor. Assessing perception of QoL is an important factor when monitoring outcomes of such programs. It is imperative to provide a comprehensive approach to QoL assessment that takes into account the objective and subjective experiences that affect an individual's perception of QoL. The purpose of this study is to determine if participation in a community-based healthy living program has a positive impact on the perception of QoL among individuals with serious mental illness.

Chapter 2 includes a review of the literature that further examines the effects of community-based programs on perception of QoL in the mental health

population. The review of the literature will be organized by the variables of Becker's theory on QoL.

CHAPTER 2

Introduction

Literature reviewed in Chapter 2 includes an analysis of constructs that measure perception of QoL in people with serious mental illness. Databases that were searched included the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Healthsource (Nursing Edition), MEDLINE, Psych and Behavioral Health Sciences Collection and PsychINFO. Searches were set to include articles published between the years of 1993 and 2018. Terms used to assist in the selection of articles included ‘Quality of Life’, ‘Wisconsin Quality of Life Index’ and ‘Mental Illness’. Other methods of article selection included analysis of references cited in relevant articles. Titles analyzed among reference citations were reviewed for terms that included ‘Quality of Life’ and ‘Wisconsin Quality of Life Index’. Psychiatric diagnoses that were pertinent to the selection of articles include Schizophrenia, Bipolar Disorder and other diagnoses relevant to the group of interest.

Defining Quality of Life

The concept of QoL has been considered an ambiguous term due to its various definitions and is often associated with the well-being of an individual. Meeburg (1993) identified the concept of QoL as being associated with the comparison of value or excellence of ‘life quality’ among individuals. Sociologists that have studied the concept of QoL refer to this term as relating to the perception of life conditions or experiences

among individuals and populations (Meeburg, 1993). This could also include the appraisal of life conditions that contribute to the satisfaction or dissatisfaction of individual experiences (Meeburg, 1993).

Theofilou (2013) identified that QoL can be a difficult concept to define due to the lack of a concise definition and went on to define QoL as a multidimensional concept that explores the self-perceptions of an individual's current state of mind. The concept of QoL can also encompass how an individual measures the "goodness" of multiple aspects of their life (Theofilou, 2013). In order to accurately measure and define QoL, the domains that comprise this concept must be identified. Theofilou (2013) identified that the concept of QoL includes social, environment, psychological and physical components.

Fayers and Machin (2016) also identified the concept of QoL as having various meanings and as a term that could be perceived differently depending upon its area of application. In some instances the concept of QoL has been associated with an individual's perception of happiness and satisfaction with life. Fayers and Machin (2016) identified that measuring the concept of QoL should include a focus on general health, physical functioning, physical symptoms, emotional functioning, cognitive functioning, role functioning, social well-being and sexual functioning. Therefore, when attempting to describe QoL, a comprehensive exploration of its components must be included.

Although QoL could refer to the perception and appraisal of life experiences, it can also refer to the improvement of health outcomes in certain populations. In order to apply the concept of QoL in terms of health-related outcomes, a concise and comprehensive definition of QoL was needed. Becker (1998) wrote that QoL, when utilized as a health-related outcome, should take a multidimensional approach that includes subjective and

objective components as well assessments that address life domains and global QoL. Subjective components can involve patient-rated perceptions that relate to physical and psychological well-being, sense of achievement and satisfaction with personal goals (Becker, 1998). Objective components can involve observations that pertain to external circumstances such as income, housing, personal safety, social relationships and functional status (Becker, 1998). To provide an absolute definition of QoL, Becker theoretically defined this concept as a client's perception of well-being that stems from the satisfaction or dissatisfaction with life domains that include general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment (Becker et al., 2006).

Within the context of health-based outcomes the effectiveness of community-based programs, which cater to those with serious mental illness, should be established in order to assist in meeting the needs of vulnerable populations and their perception of QoL.

Measuring Quality of Life in the Mental Health Population

Measuring perception of QoL among populations with serious mental illness is essential in understanding factors that can negatively or positively affect perception of QoL. In previous studies, factors such as empowerment, self-stigma and social support have been known to affect perception of QoL among the mental health population (Lundberg et al., 2008). Individuals with mental health conditions who felt empowered developed a sense of control over social factors and adequate social support in their community (Nelson et al., 2007). This contributed to the ability of people with serious mental illness to better adapt to community-based living and an improvement in self-

reported satisfaction in well-being (Nelson et al., 2007). Researchers who have studied perceptions of QoL among people with serious mental illness have recognized the relationship between self-stigma and negative QoL outcomes. Self-stigma that occurs among people with serious mental illness has been associated with outcomes such as lower perceived QoL and self-esteem (Rüsch et al., 2010).

Researchers have also associated the benefits of social support among people with serious mental illness with improved perception of QoL. Perception of adequate social support among clients with serious mental illness has been associated with improved mental and physical health, adjustment and personal development (Ribas & Lam, 2010). Adequate provision of social support among those with serious mental illness has also demonstrated improved QoL outcomes in terms of satisfaction with the provision of mental health services in the community setting.

Yasien, Alvi and Moghal (2013) examined the relationship between the presence of adequate social support systems and its impact on perception of QoL among the mentally ill. Yasien et al. (2013) identified that people who feel supported by their social network experience less anxiety and depression and higher self-esteem. Presence of an adequate support system for clients with serious mental illness could not only assist in improving perception of QoL, but also perception of psychiatric symptoms (Yasien et al., 2013).

Sánchez, Rosenthal, Tansey, Frain and Bezyak (2016) examined factors such as presence of social support system as a predictor of QoL in clients with serious mental illness.

Sánchez et al. (2016) identified that clients with serious mental illness who had an adequate social support system had an improved perception of QoL. Programs that focus on treatment of individuals with serious mental illness should include a component that

assists a client with improving their social support system. Mental health programs that assist in improving a client's social support system could in turn improve perception of their QoL.

Measuring perception of QoL in individuals with serious mental illness has focused on concepts such as empowerment, social support and self-stigma (Nelson et al., 2007; Lunberg et al., 2008; Rüsçh et al., 2010; Ribas & Lam, 2010; Yasien et al., 2013; Sánchez et al., 2016) The benefits of including lifestyle modification strategies and perception of QoL in the mentally ill have also been investigated. Green, Jannoff, Yarborough and Yarborough (2014) examined the benefits of including a program that focuses on lifestyle modification strategies in individuals who are taking psychotropic medications. Green et al. (2014) identified that individuals who are prescribed psychotropic medications are at an increased risk for premature mortality due to serious side effects. Disease processes, such as cardiovascular disease and obesity, can develop as result of these medications and thus negatively impact perception of QoL (Green et. al, 2014). The authors identified that including a program that focuses on lifestyle modification strategies in the mentally ill could also improve physical health, self-esteem and body image. Green et al. (2015) followed up with an additional study that supports the use of lifestyle modification strategies in the mentally ill population. This later study further emphasized that including lifestyle modification strategies that lead to an improvement in physical health, self-esteem and body image could result in enhanced mental health management and perceived QoL.

Tessier et al. (2017) examined the effect of implementing therapeutic lifestyle changes (TLC) on perception of QoL in those with serious mental illness. Tessier et al. (2017)

acknowledged that TLC's encouraged individuals with serious mental illness to make healthy lifestyle modifications in the areas of exercise, nutrition, stress management, relaxation and relationships. Tessier et al. (2017) also identified that engagement in TLC behaviors was associated with improvement in perceived physical health, psychological health and QoL (Tessier et al., 2017). Deenik et al. (2017) examined the relationship between engagement in physical activity and perception of QoL among individuals with serious mental illness. The authors also identified that individuals with serious mental illness who engaged in increased physical activity had better outcomes in terms of perception of physical health, psychiatric symptoms and QoL (Deenik et al., 2017).

Becker's Theory of Quality of Life

Becker developed a theory on QoL based on the work of Carol Estwing Ferrans (1996) who based her theory on the on the QoL Model (QLM) proposed by Campbell, Converse and Rodgers in 1976. The QLM (Campbell et al., 1976) acknowledged that the concept of QoL is comprised of an individual's objective and subjective perception of happiness in life domains. Although the QLM addressed relevant components of QoL, Ferrans initiated an approach to conceptually clarifying the concept of QoL proposed by Campbell et al. (1976). She indicated that QoL for each individual can be subjective and must take into account life domains that are significant to each person. Ferrans (1996) proposed that the concept of QoL pertains to a sense of well-being that relates to an individual's satisfaction or dissatisfaction in the areas of health and functioning, psychological/spiritual wellness, social/economic conditions and family relationships. Examples of components that contribute to an individual's perceived level of satisfaction in the aforementioned domains include physical independence, financial independence,

emotional support from others, satisfaction with life/self and family health. Ferrans' theory on QoL led to the development of the Ferrans and Powers QoL Index (Ferrans & Powers, 1984), an evaluative method that assisted in the measurement of perceived QoL in patients with health related illnesses, i.e. cancer patients, patients with End Stage Renal Disease (ESRD).

Unlike Ferrans, Becker focused primarily on examining perception of QoL among patients with serious mental illness. Becker et al. (1993) further identified the concept of QoL as a multi-dimensional construct that includes both subjective and objective components. In order to determine the efficacy of a community-based program on perception of QoL, the PI must take into account domains that comprise Becker's theory along with subjective and objective components that measure perception of QoL.

Domains of Well-being

Consistent with Becker's QoL theory, Becker et al. (1993) proposed life domains that contribute to a client's sense of well-being including; general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment. Each domain is evaluated individually in order to determine areas of significance that have an effect on the perception of QoL of the client (Becker et al., 1993). Becker et al. (1996) defined general life satisfaction as a measure that evaluates the client's level of satisfaction with general life conditions with such items as living environment, housing, food, clothing, and mental health services. The domain of occupation and activities focuses on the client's daily activities related to work, school or mental health day programming (Becker et al., 1996). This domain could also include a focus on the

capacity of the client to participate in daily work activities. Psychological well-being determines the client's current general emotional well-being and mental health at a given time, while the domain of physical health examines the client's perspective on general physical health. Social relations/support domain focuses on a client's satisfaction with social relationships and provides insight on a client's satisfaction on the amount of social support received by peers. The area of economics examines a client's satisfaction with monetary resources and control over finances. Activities of daily living are included to evaluate the client's functional status and the ability to engage in independent living tasks (Becker et al., 1996). The domain of symptoms/outlook provides a subjective assessment of how psychiatric symptoms affect a client's QoL and functional ability. Goal attainment focuses on the client's achievement of mental health treatment goals and provides insight as to whether or not the client has achieved their goal.

Perception of Satisfaction and QoL in Individuals with Serious Mental Illness

In order to orient factors that contribute to the perception of satisfaction and QoL among clients with serious mental illness, a schematic was developed by this author to situate these factors (See Figure 2). The schematic identifies factors such as severity of psychiatric symptoms, degree of psychopathology, positive client-clinician relationships, satisfaction with mental health services, presence of peer-supported mental health services and treatment, self-stigma and adverse life events as factors that could contribute to client perceived satisfaction in life domains postulated by Becker. Out of the life domains proposed by Becker, satisfaction within the domains of symptoms/outlook, general life satisfaction and social support/ relationships could significantly be affected. This in turn can have a positive or negative effect on individual perception of QoL.

Previously mentioned factors could also have a direct, positive or negative effect on perception of QoL (See Figure 1).

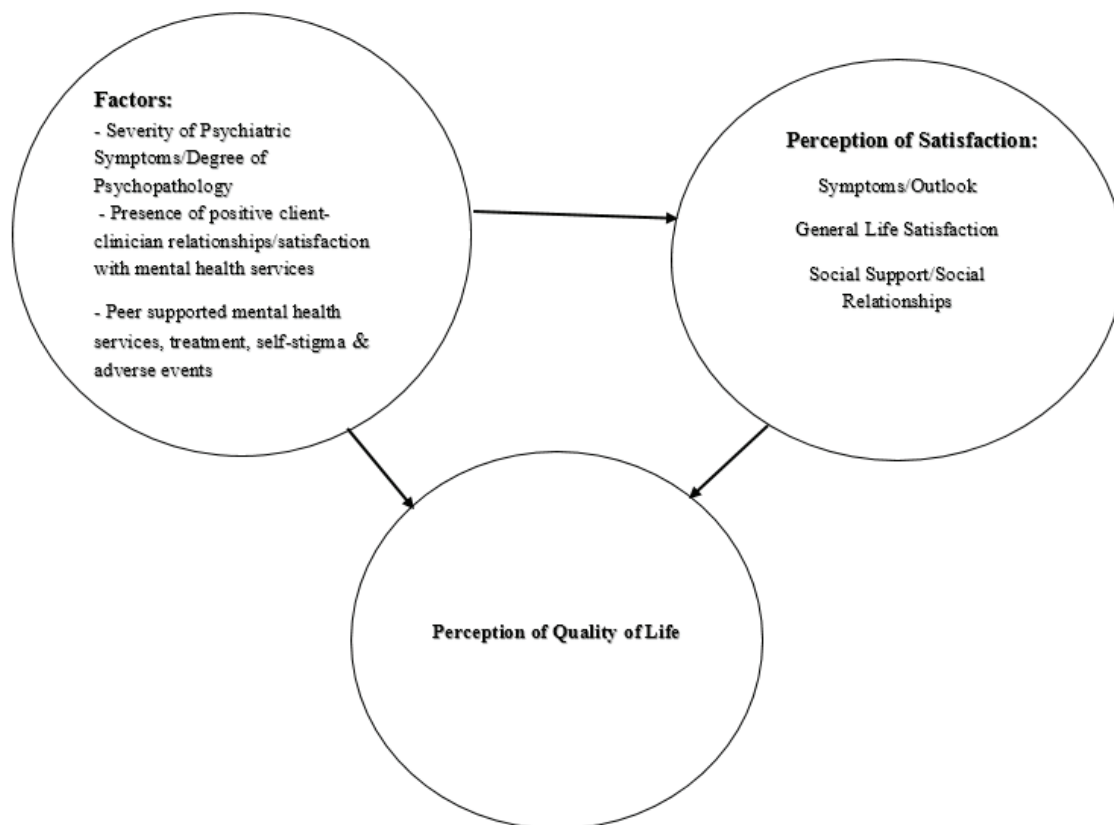


Figure 1: Factors that influence client perception of QoL and satisfaction

Psychiatric Symptoms and Symptoms / Outlook

Since the inclusion of mental health care in the community setting, severity of symptoms and symptom management has been integral in the management of this population. Interventions that include psychopharmacologic and psychosocial approaches to mental health treatment have assisted this population in improving perception of QoL

and symptom management. Becker et al. (1996) identified severity of psychiatric symptoms as a factor that could hinder individual perception of QoL. With symptoms playing an integral role in perception of QoL among people with serious mental illness, Becker emphasized the importance of including client perceptions on psychiatric symptoms when evaluating perception of QoL. Including the client's perception of psychiatric symptoms is essential in determining the effects of symptom severity on QoL and functional status.

Caron, Mercier, Diaz, and Martin (2005) specified that QoL outcomes have become a relevant indicator in determining the effectiveness of community-based mental health services and programs. With the presence of services that assist in improving perception of QoL in this population, presence of personal and social variables could compromise the maintenance of QoL. Caron et al. (2005) explored the relationship between the impact of socio-demographic and clinical variables on the QoL of patients with serious mental illness. To identify the effect of clinical variables (i.e. symptom severity) on perception of QoL, Caron et al. (2005) included the Canadian version of the WQLI client questionnaire to identify life domains that were impacted. Clients that were assessed in this study were identified to have a diagnosis of paranoid schizophrenia, other diagnoses of schizophrenia (i.e. disorganized, undifferentiated, residual, etc.) and schizoaffective disorder. Caron et al. (2005) indicated that the type of schizophrenia was correlated with level of satisfaction in terms of psychiatric symptoms and symptom outlook. Findings from the study identified that clients with paranoid schizophrenia reported lower QoL and lower scores in the life domain of symptoms/outlook. Other scores that were affected by the type of schizophrenia included the life domains of occupation and activities and

psychological well-being. To further support these findings, Caron et al. (2005) noted that the degree of symptom severity experienced by clients diagnosed with paranoid schizophrenia appeared to promote avoidance of activities that involved social contact and isolation. Findings identified that the severity of mental illness and associated symptoms can interfere with QoL to produce a lower perception of satisfaction with well-being and symptoms. Severity of symptoms associated with an affiliated psychiatric diagnosis can lead to social isolation, which in turn can further facilitate dissatisfaction with well-being.

Renwick et al. (2015) examined how psychiatric symptoms in clients diagnosed with psychosis affected perception of QoL. Renwick et al. (2015) further acknowledged that the type of treatment for depressive and negative symptoms and duration of untreated psychosis could impact perception of QoL. For this study perception of QoL was measured using the WQLI client questionnaire in order to understand the impact of psychiatric symptoms on QoL. Clients that were included in the study were clients with serious mental illness who were receiving mental health treatment in either the community or inpatient setting. Diagnostic criteria for first episode psychosis was based on the *Diagnostic and Statistical Manual of Mental Disorders – TR*. Renwick et al. (2015) identified that clients who received involuntary inpatient mental health treatment experienced less depressive symptoms, had an improved perception of psychiatric symptoms and QoL. Therefore, programs that provide mental health treatment should focus on improving perception of QoL through the management of psychiatric symptoms. Symptoms that are perceived by the client to be well managed could in turn lead to an improved perception of their QoL.

In terms of symptom outlook, phase-specific community treatment of psychiatric conditions has been known to improve perception of QoL and satisfaction with symptoms. Malla, Norman, McClean and McIntosh (2001) investigated the effectiveness of phase-specific psychosocial interventions and psychopharmacological treatment with clients diagnosed with first episode psychosis related to diagnoses of schizophrenia, schizophreniform and schizoaffective disorder. Clients were also identified as receiving phase-specific treatment within 30 days of a first-episode psychotic event. Malla et al. (2001) measured global QoL using the WQLI client questionnaire and focused on the effects of phase-specific psychosocial and psychopharmacological interventions in the improvement of satisfaction in the life domain of symptoms/outlook. The findings of this research indicated that clients who demonstrated a 30% or greater improvement in positive symptoms exhibited higher scores in the life domain of symptoms/outlook. Therefore, due to early implementation of phase-specific treatment and improvement of psychiatric symptoms among this group, clients experiencing first episode psychosis demonstrated an improved level of satisfaction with symptoms. This in turn also revealed that satisfaction with symptoms, because of early psychosocial and psychopharmacological intervention, improved satisfaction with psychological well-being. Improvement of psychiatric symptoms that lead to satisfaction with psychological well-being and symptom management could improve perception of QoL.

Similarly, Malla et al. (2004) investigated the effects of delayed treatment in patients who experienced first episode psychosis. Clients included in this research were primarily diagnosed with Schizophrenia. The WQLI client questionnaire was utilized to determine which domains that contribute to perception of QoL are affected by delays in treatment

that target first episode psychosis. Severity of symptoms was also taken into account when considering treatment delays. Symptoms taken into consideration included reality distortion, psychomotor poverty, disorganization, depression and anxiety (Malla et al., 2004). Findings identified a negative relationship between depression and the domain of symptom/outlook, indicating that a higher severity of depression resulted in poorer outlook on symptoms. It can be inferred that delays in treatment that assist in the management of psychiatric symptoms can affect the client's perception or satisfaction with symptom severity. Delays in mental health treatment that address psychosis and associated psychiatric symptoms can not only negatively affect perception of symptoms, but can also lead to a poorer perception of QoL.

Psychosocial modalities that include coping strategy development have been an essential component to improving perception of QoL and symptoms in people with serious mental illness. Rudnick and Martins (2009) examined the effects of various coping techniques on symptom severity in clients with serious mental illness and identified six coping techniques that influenced symptom severity and life domains addressed by the WQLI client questionnaire. These six coping techniques included supportive and passive coping, activity coping, hope-related coping, wishful-thinking coping, guilt and indirect coping, and non-compulsive coping. Techniques of support and passive coping, hope-related coping and guilt and indirect coping were inversely correlated with question items that addressed symptoms/outlook. Thus, the use of these coping techniques assisted in improving perceptions of symptom severity, which in turn improved the client's perception of QoL. It was also discovered that activity coping and hope-related coping strategies improved client perception of psychological well-being. It

can be acknowledged that the incorporation of psychosocial techniques that address coping strategies can assist with perception of symptoms and psychological well-being. With this in mind, the improvement of psychiatric symptoms and well-being through the use of coping strategies can assist in improving the client's perception of QoL.

General Life Satisfaction

Becker et al. (1996) identified the domain of general life satisfaction as a measure that evaluates the client's level of satisfaction with general life conditions. This measure could include measuring satisfaction with living environment, housing, food, clothing, and mental health services. Selected articles that emphasize the significance of general life satisfaction in the measurement of QoL identified several variables that affected the measurement of this domain. Variables such as presence of positive relationships between clients and mental health providers, satisfaction with mental health services, self-stigma and adverse childhood and adult experiences in mental health recovery have played a significant role in general life satisfaction. Presence of these variables can either positively or negatively affect perceptions in this life domain. Self-stigma, a common experience in people with serious mental illness, can negatively impact the client's perception of satisfaction with general life circumstances. Presence of these variables, whether it has a positive or negative impact on a client's perception of general life satisfaction, can eventually affect perception of QoL.

Green et al. (2008) explored the relationship between positive client-clinician relationships and continuity of care on QoL. Participants of this study included clients with a diagnosis of Schizophrenia, Schizoaffective disorder, Bipolar Disorder or affective psychosis. Data examined included results reported from the Study of Transitions and

Recovery Strategies (STARS), an exploratory, longitudinal, mixed-methods study of recovery from serious mental illness (Green et al., 2008). To explore the life domain of general life satisfaction, the General Satisfaction Scale was incorporated from the WQLI client questionnaire as a quantitative measure that examined the relationship between satisfaction with mental health services, perception of QoL and recovery outcomes. Findings indicated that the presence of positive relationships between clients and clinicians in recovery-oriented and patient-directed mental health care has led to an improvement in the perception of mental health recovery and QoL. Continuity of care within the context of recovery-oriented and patient-directed treatment has led to the development of trusting relationships between clients and clinicians and overall satisfaction with mental health care services. Providing mental health treatment that promotes therapeutic relationships and continuity of care among clients and clinicians can have a significant impact on client perceptions of satisfaction with mental health services. An additional study conducted by Green et al. (2013b), further examined the relationship among the participants of the STARS study and recovery trajectory from serious mental illness. The WQLI client questionnaire was incorporated to examine the relationship between level of mental health recovery, perception of mental health services and QoL. Participants of this study included clients with a diagnosis of Schizophrenia, Schizoaffective disorder, Bipolar Disorder or affective psychosis. Findings indicated that as a result clients who experienced a higher level of mental health recovery had greater satisfaction with their mental health clinician and the services they provided. Green et al. (2013b) also identified that those with a higher level of mental health recovery experienced increased satisfaction in terms of psychiatric symptoms and physical health.

Psychiatric interventions that take a therapeutic and recovery-oriented approach to recovery from serious mental illness can have a positive effect on general life satisfaction, in terms of satisfaction with mental health care and QoL.

An additional study by Green, Janoff, Yarborough and Paulson (2013a) incorporated a peer-based recovery intervention that assisted clients with recovery from serious mental illness. The authors identified goals of peer-based recovery as providing a safe and supported environment that is conducive to promoting client self-worth, dignity and facilitation of experiential learning experiences. To examine the relationship between peer-based mental health recovery groups and QoL, participants were randomly assigned to three study groups: a 6-week pilot study group (cohort 1), 10-week peer-supported recovery intervention group (cohort 2) and a delayed-intervention control group (cohort 3). Clients assigned to the cohorts had diagnoses of Schizophrenia, Bipolar Disorder and Schizoaffective Disorder. To address QoL in relation to peer-based mental illness recovery, the general life satisfaction subscale was adopted from the WQLI client questionnaire. Findings identified that the pilot study group demonstrated no significant change in general life satisfaction as result of participation in the peer-based recovery group. Although no changes in life satisfaction were found, it was noted that other domains that address QoL showed a statistically significant improvement in areas such as symptom scores and hope for improvement in QoL. The intervention group demonstrated a marginally significant improvement in general life satisfaction while the delayed intervention group, in which there was delayed participation in the peer-based recovery group, also demonstrated no significant change in general life satisfaction. In terms of peer-based mental health recovery, the length of participation in peer-based groups is

essential in showing marked improvement in perception of QoL and in particular perceptions that pertain to general life satisfaction. The authors suggested that consistent long-term participation in peer-based recovery groups should be encouraged in order to allow for continued improvement in recovery from serious mental illness and maintenance of well-being.

To further examine the significance of mental health recovery and perception of QoL, Stumbo, Yarborough, Paulson and Green (2015) examined the effects of adverse childhood and adult experiences in recovery from serious mental illness. The researchers identified that clients diagnosed with serious mental illness have reported one or more adverse childhood experiences. As a result of these childhood experiences, adults with serious mental illness have presented with poorer emotional and physical functioning, including increased exposure to adverse events in adulthood. These factors including the presence of psychiatric symptoms can lead to poorer perception of QoL. To address these factors and their impact on QoL, the WQLI client questionnaire was integrated to examine the relationship between the aforementioned variables, QoL and client perception of general life satisfaction. Participants were recruited by the previously mentioned STARS study and psychiatric diagnoses of Schizophrenia, Schizoaffective, Bipolar Disorder and Affective Disorders were included. Findings indicated that presence of adverse experiences in childhood were not associated with poorer perceptions of general life satisfaction and QoL. However, adverse experiences in adulthood were associated with poorer perceptions relating to general life satisfaction and QoL. Due to the presence of adverse experiences in adults with serious mental illness, life domains that address social support/relationships and physical health were also negatively

impacted. From this investigation, it can be assumed that the presence of adverse experiences in adulthood is a determining factor in perceived QoL in adults with serious mental illness. The authors suggested that providers assisting clients with recovery from serious mental illness take into account and identify the presence of adverse experiences in adulthood. Stumbo et al. (2015) concluded that adverse adult experiences are significant indicators that could affect mental and physical health, QoL, social functioning, and mental health recovery. Early identification of these experiences was found to aid promotion of appropriate recovery-oriented treatment and improved perceptions of general life satisfaction and QoL.

People with serious mental illness are often afflicted with the negative effects of self-stigma. Self-stigma can be characterized by the presence of negative feelings and maladaptive behavior that occur as a result of an individual's experience or perception of negative social reactions based on their mental illness. Livingston, Rossiter and Verdun-Jones (2011) identified that the presence of self-stigma in an individual with serious mental illness has been associated with low self-esteem, poor QoL, reduced self-efficacy and increased severity of psychiatric symptoms. In order to understand the effects of self-stigma and perception of QoL, Livingston et al. (2011) included clients with a diagnosis of Schizophrenia, Bipolar Disorder and other psychotic disorders who were receiving compulsory community mental health treatment in either civil or forensic mental health systems. To measure perception of QoL, the WQLI client questionnaire was implemented to determine the effects of self-stigma on not only perceived QoL, but also general life satisfaction. Findings demonstrated that higher levels of self-stigma in both groups were not significantly associated with life satisfaction. It was also identified that levels of self-

stigma were not significantly associated with psychological well-being. Although these results were not significant in the life domains of general life satisfaction and psychological well-being, higher levels of self-stigma were associated with severity of psychiatric symptoms. It can be inferred that degree of self-stigma could result in increased severity of psychiatric symptoms, which may or may not have an immediate effect on perceptions of life satisfaction, psychological well-being and QoL. Therefore, the authors wrote that it is imperative that clients be evaluated for the presence and severity of self-stigma so that long-term negative effects of this phenomenon can be deterred.

Similarly, Livingston (2012) followed up on the aforementioned study by examining the effects of self-stigma over time. Livingston (2012) proposed that self-stigma in clients with serious mental illness has been associated with hopelessness, poor self-esteem, decreased empowerment, reduced treatment adherence and increased symptom severity. To further examine the relationship between perception of self-stigma, life satisfaction and QoL, the WQLI client questionnaire was implemented to measure these variables. The study sample included participants with diagnoses of Schizophrenia, Bipolar Disorder and other psychotic disorders who were receiving compulsory community mental health treatment within the civil or forensic mental health systems. Findings indicated that presence of self-stigma was associated with poorer perception of life satisfaction and QoL at both baseline and at 12-month follow up. Findings also indicated that presence of self-stigma had a negative effect on perception of psychological well-being and social relationships at baseline. At 12-month follow-up perceptions of psychological well-being, social relationships, psychiatric symptoms and participation in

activities of daily living were affected. It can be reinforced to researchers that factors, such as self-stigma, must be measured over time in order to understand how its long-term effects influence perception of QoL in individuals with serious mental illness and relevant domains that contribute to well-being. Early identification of self-stigma and psychiatric symptoms associated with this phenomenon is crucial in preventing the deterioration of QoL among people with serious mental illness.

Social Support and Social Relationships

Presence of social support and adequacy of social relationships is essential in various aspects relating to clients with serious mental illness. Becker et al. (1996) defined the domain of social relations/support to focus on a client's satisfaction with social relationships and amount of support received by these relationships. Perceived satisfaction in the domain of social support and relationships is crucial in determining the QoL status of the client. Support systems provide clients with serious mental illness with an outlet that supports recovery and formation of healthy social relationships.

Psychopathological processes associated with serious mental illness can influence perception of satisfaction with social support and social relations. The degree of psychopathology can also impair social relationships. Caron et al. (2005) identified that clients diagnosed with Paranoid Schizophrenia experience difficulties with social relationships and avoid activities that include social interaction. This indicated that the effects of psychopathological processes associated with serious mental illness could interfere with the formation of adequate support systems and relationships, which in turn can lead to isolation. Isolation, as well as impairment in social skill development, can

lead to decreased satisfaction within the domain of social support/relationships and perceived QoL.

Hendryx, Green and Perrin (2008) examined the role of social support in the recovery of clients with serious mental illness. The authors proposed that adequate social support is essential in the psychological health and recovery in clients with serious mental illness. With social support being crucial in mental illness recovery, adequate social support can in turn, improve quality of social relationships and perception of QoL. To measure these outcomes, two items from the social support/relationships domain from the WQLI client questionnaire were selected to measure the domain of social support/relationships. These questions addressed actual support received and number of individuals in the client's support network. Findings from the study identified that adequate social networks and social support were associated with improved recovery outcomes. Adequate social support was thought to have the added benefit of providing emotional and psychological care that encourages the client to become motivated in attaining recovery goals and improving QoL (Hendryx et al., 2008). Recovery-oriented interventions that supported peer-based modalities were also thought to assist in sustaining adequate social support. Peer-based recovery groups could provide clients recovering from a serious mental illness with social support that originally was lacking prior to participation in group treatment. The presence of peer-based social support can improve client QoL outcomes in terms of satisfaction with social networks, social relationships and recovery from mental illness.

Atkinson, Zibin and Chuang (1997) explored the relationship between type of psychopathology and social support in clients with serious mental illness and found that

psychopathology could have an effect on mental, emotional and social perceptions when measuring QoL outcomes. Clients with diagnoses of Schizophrenia, Bipolar Disorder and Depression were included in the study. The WQLI client questionnaire was used to examine the relationship between type of psychiatric diagnosis and perceptions of social support/relationships. Findings demonstrated that among the three psychiatric diagnoses, clients diagnosed with Bipolar Disorder and Depression reported more social involvement and satisfaction than clients diagnosed with Schizophrenia.

When measuring perceptions of social support and adequacy of social relationships, Atkinson et al. (1997) wrote that it is essential to take into account the psychopathology of the client in question. The degree of psychopathology can interfere with perceptions relating to adequacy of social support. For instance, a client in a depressed state may indicate that they lack a social support system, when in fact support from family members is observed. This also takes into account the importance of seeking information from outside sources, i.e. caregivers, in order to supplement information provided by the client.

To further assess the impacts of psychopathology on the domain of social support and relationships, Hasson-Ohayon et al. (2015) examined the effects of metacognitive and social cognition on social aspects of QoL in clients with Schizophrenia. Metacognition was described by the authors as a psychological spectrum of activities that allow the individual to capture what others think and feel and how to respond to psychological and social challenges. Social cognition was described as referring to a range of different cognitive, affective, automatic and voluntary processes that assist in the accuracy or flexibility of judgments. Hasson-Ohayon et al. (2015) indicated that impairment of

metacognition is evident in both beginning and late stages of Schizophrenia and are associated with both objective and subjective indicators of QoL. To investigate the relationship between these cognitive processes on perception of QoL and social indicators of QoL, the domain that measures social support/relationships in the WQLI client questionnaire was utilized. Participants of the study included clients with a primary diagnosis of Schizophrenia. Findings indicated that understanding the minds of others (metacognition) and low self-reflectivity improved social QoL. Depending on the degree of impairment of these cognitive processes, outcomes that relate to satisfaction with social support, interactions and relationships were found to be impacted. For instance, a client with a diagnosis of Schizophrenia who presents with severe metacognitive impairment could report difficulty in relating to others, lack of social support and avoidance of social interactions. Therefore, it is pertinent to take into account the severity of cognitive impairment and how this impairment could interfere with client perceptions of social support, relationships and QoL.

Analysis of Research Studies Related to the Research Proposed

Findings from the review of literature identified that the themes of psychiatric symptoms and symptoms/outlook, general life satisfaction and social support /social relationships were significant in QoL research in clients with serious mental illness. The first relevant theme pertains to the presence of psychiatric symptoms and measurement of the domain symptoms/outlook. Severity of psychiatric symptoms in this population can affect a client's perception of satisfaction and QoL that are affected by symptoms. In relation to symptom severity, programs that assist in the management of psychiatric symptoms are crucial in improving perception of QoL in individuals afflicted with a

serious mental illness. When measuring outcomes that address perception of QoL and psychiatric symptoms it is essential to take into account severity of symptoms and type of treatment the client is receiving for mental health management. It is also essential to examine how factors related to psychiatric symptoms could affect an individual with serious mental illness from achieving an optimal perception of physical health.

General life satisfaction in individuals with serious mental illness is also another significant contributor to perception of QoL. Articles selected examined factors that could contribute to satisfaction or dissatisfaction with life circumstances. Provision of satisfactory mental health services and positive client-provider relationships are essential in mental health recovery and improvement in QoL. Presence of peer-based support could also function to assist clients with becoming empowered and motivated to improve life circumstances that in turn improve perception of QoL. Although there are positive factors that could contribute to satisfaction with life circumstances, negative factors can be apparent. Societal perceptions of mental illness can contribute to self-stigma among people with serious mental illness. Other factors that can negatively affect perception of QoL and general life satisfaction are the presence of adverse personal experiences. Community-based programs that take a therapeutic and peer-based approach to mental health services should be evaluated on how these strategies could improve perception of satisfaction in terms of mental health services and QoL.

Presence of social support and adequate social relationships are important factors that contribute to improving QoL in clients with serious mental illness. Examining the adequacy of an individual's social support system can determine the likelihood that an individual would reach recovery goals. Peer-based support must also take into

consideration the development of adequate social networks and relationships that were previously lacking. Presence of peers as a support network can encourage the client to become motivated and empowered to attain recovery goals, which in turn can improve perception of QoL. Other factors that could affect satisfaction within the context of the social support/relationships domain are type of psychopathology. When measuring perceptions of social support and adequacy of social relationships, it is essential to take into account the psychopathology of the individual in question. Degree of psychopathology can interfere with perceptions on adequacy of social support. Another aspect of psychopathology and its effect on measuring perceived QoL is how impaired cognitive processes affect this measure. Individuals that present with impairment in cognitive processing could report difficulty in relating to others, lack of social support and avoidance of social interactions. This could lead to social isolation, which in turn could negatively affect the client's QoL. Evaluation of community-based programs, especially programs that focus on both physical and mental health, must take into consideration how presence of adequate support systems and ability to develop relationships with others could promote or hinder the achievement of health goals.

Implications for Proposed Research

This study will examine whether participants of the *Healthy Choices* program have higher levels of perception of QoL. The study assesses the constructs related to perception of QoL as described by Becker using the WQLI client questionnaire. The following will review study implications that pertain to the importance of including qualitative data, measuring disability and measuring perception of QoL using Becker's theory within the context of a community-based program.

Need for Qualitative Data

In order to supplement quantitative measures that assess perception of QoL, qualitative data will be collected to augment the understanding of the “lived experience” of the clients who participate in the *Healthy Choices* program. The “lived experience” would consist of the perceptions provided clients who participated in the *Healthy Choices* program and their experiences in how the program improved perception of their QoL (i.e. perception of physical health, psychiatric symptoms, etc.) Therefore, the methodology of phenomenology will be implemented for this study. As previously mentioned a phenomenological approach involves the exploration of an individual’s reality of life and examines the “lived experiences” of a person experiencing the phenomenon (Tuohy et al., 2013).

Research analyzed from the literature review identified studies that included qualitative data to support the “lived experience” of the client in order to determine the efficacy of mental health programs on QoL outcomes. Green et al. (2008) included qualitative data in the form of client interviews to support how continuity of care and presence of supportive client-clinician relationships affected client recovery from serious mental illness. Qualitative analysis from this study served to support the importance of providing positive and trusting client-clinician relationships in order to promote adherence to treatment regimen and continued satisfaction with mental health care services that focus on client recovery. In a later study, Green et al. (2013a) integrated qualitative analysis to emphasize the significance of peer-based recovery programs for clients recovering from serious mental illness. The purpose of including qualitative client perceptions was to establish that recovery groups that provide peer-based support assist in

improving perception of general life satisfaction and social support in people with serious mental illness. Livingston et al. (2011) incorporated qualitative data to identify how self-stigma influenced clients in becoming involved in the forensic mental health system. Qualitative perceptions provided via client interviews provided insight on how social perceptions of mental illness can lead to self-stigma and altered self-perceptions in the client. Qualitative analysis pertaining to self-stigma also served the purpose of understanding the “mind set” of a client experiencing varying degrees of self-stigma.

In relation to the participants of the *Healthy Choices* program, qualitative data should be collected in order to support how the program improved perception of QoL. With this in mind, a phenomenological approach should be used in order to understand the “lived experience” of the client and their perception of QoL.

Measuring Disability

From the literature review, the severity of psychiatric symptoms could have a negative impact on the perception of QoL in an individual with a serious mental illness (Caron et al., 2005). Strategies that address the improvement of psychiatric symptoms must not only measure improvement in perception of QoL but also level of psychiatric disability. Üstün et al. (2010) indicated that information on functioning and disability is taken into account by professionals in order to determine the effectiveness of an intervention. Therefore, measuring level of disability is an essential component in determining the effectiveness of an intervention that targets individuals with serious mental illness and improvement in psychiatric disability. When applying this within the context of community-based programs, the focus on physical and mental health improvement within the level of physical and psychiatric disability must be examined.

Measuring QoL within the Context of a Community-Based Healthy Living Program

The studies presented in the literature review did not apply the WQLI client questionnaire within the context of a community-based healthy living program as a measure to address perception of QoL and the domains that contribute to this perception. However, previously mentioned studies examined efficacy of programs that implemented lifestyle modification strategies that assisted with improving perception of QoL. Although the WQLI client questionnaire wasn't previously implemented in the community setting, it is an appropriate measure that would examine perception of QoL in individuals with serious mental illness.

Summary

The review of literature shows that it is important to consider factors that can positively or negatively affect perception of QoL. One important factor is the significance of the severity of symptoms and cognitive impairment in clients of this population. This factor can interfere with accuracy of client responses when it comes to measuring QoL and relevant outcomes. Symptom severity can also interfere with perception of satisfaction that pertains to approval of symptoms and symptom outlook. When considering treatment modalities, it is essential to take into account strategies that not only improve psychiatric symptoms and perception of QoL, but also consider satisfaction with life circumstances. Programs that provide peer-based support are also essential in the provision of supporting adequate social networks and positive social relationships. When addressing QoL outcomes in clients with serious mental illness, factors previously mentioned must be taken into consideration in order to provide a holistic approach QoL assessment in this population.

Findings previously mentioned touch upon aspects of QoL in people with serious mental illness. The information provided was a review of literature that pertains to the measurement, themes and study implications of measuring QOL in this population. The following chapter will provide the methodology for this study.

CHAPTER 3

Introduction

This chapter will discuss methodology used to test if participation in the *Healthy Choices* program is related to higher perceived levels of QoL in individuals with serious mental illness. To reiterate, the purpose of this study is to evaluate the impact of the *Healthy Choices* program on the QoL of the participants of the program. The study will also address research questions that pertain to life domains of importance that could affect perception of QoL among this population.

Instruments that have evaluated QoL in this population have collected subjective and objective data but have been limited in their assessments (Becker et al., 1993). For instance, the Lehman QoL Interview (Lehman, 1988) takes into account both subjective and objective data that evaluates QoL in people with serious mental illness. Although this method has been widely used to measure QoL among this population, the tool only takes into account responses from the client. Instruments that address QoL in people with serious mental illness must provide a global assessment of subjective and objective measures and provide a multi-perspective approach to measuring QoL (Becker, 1998). With this shortcoming, the WQLI client questionnaire (Becker et al., 1996) was created to provide a comprehensive approach to evaluating QoL in populations with serious mental illness for research and clinical methodologies.

The administration of the WQLI client questionnaire will be the primary method of QoL evaluation in this study. In order to identify factors that could hinder or support QoL improvement other instruments and methods will be integrated, including the WHODAS and a structured interview questionnaire to collect qualitative data. Approval from the Binghamton University Human Subjects Research Committee (See Appendix A) and Mental Health Association of the Southern Tier (MHAST) was attained prior to initiating this study (See Appendix B). Informed consent was provided to subjects prior to participation in the study (See Appendix F)

Study Design

This non-experimental ex post facto design applied a mixed methods approach to data collection. Research that takes a mixed methods approach utilizes both qualitative and quantitative data to address complex phenomena in both the social and health sciences (Creswell, 2013). For this study the investigator implemented a mixed-methods design that triangulates both quantitative and qualitative data to address perceptions of QoL. Triangulation in a mixed methods approach assists in bringing together the strengths and weaknesses of quantitative data with the supplementation of qualitative data (Creswell & Plano-Clark, 2018). With this approach quantitative and qualitative data are collected concurrently and are implemented in a method identified as a concurrent triangulation design. Creswell and Plano-Clark (2018) indicated that in a concurrent triangulation design the researcher concurrently, but separately, collects quantitative and qualitative data to understand a given research problem or inquiry. After the collection of both qualitative and quantitative data the researcher weighs the importance of both sets of data and then merges the information to provide an analysis of findings. The rationale for

using a concurrent triangulation design is to provide a comprehensive approach to understanding a specific phenomenon through the use of quantitative and qualitative means. The use of this method allows the researcher to validate findings via the supplementation of qualitative data, which compensates for the weaknesses found in quantitative data. A weakness in quantitative data could include data collected from a small sample size which would produce results that do not accurately represent the target population. For this study the researcher intends to concurrently collect quantitative and qualitative data via a survey and structured interview.

The *Healthy Choices* Mental Wellness (HCMW) group consisted of subjects who participate in the *Healthy Choices* program in addition to mental wellness programs offered by MHAAS. Participation in the *Healthy Choices* program would be identified as the independent variable. The Mental Wellness (MW-only) group will include subjects who participate primarily in mental wellness programs provided by MHAAS. Quantitative data was procured from scores obtained on the WQLI client questionnaire and WHODAS. Collection of data via the WQLI client questionnaire and WHODAS instruments measured perceptions of QoL and level of disability respectively. Perception of QoL and level of disability were identified as the dependent variables.

In terms of qualitative analysis, a phenomenological approach was used in order to understand the “lived experience” of the client and perception of their QoL. The “lived experience” included perceptions of the clients who are in HCMW and MW-only groups. Qualitative data will be obtained through a self-administered structured interview that includes questions that address research questions. Structured interviewing will be

administered to clients in both the HCMW and MW-only groups in order to identify themes and provide a descriptive analysis that examines perception of QoL.

Subjects

The population of focus in this study was people diagnosed with serious mental illness who are living in the community and attending outpatient mental health services. More specifically, mental illness diagnoses among this population may include Bipolar Disorder, Schizophrenia, Depression and Dissociative Identity Disorder. The population also included persons classified as having dual-diagnoses, which is co-occurring mental illness with substance abuse. This population utilizes community mental health services that implement a pharmacological approach to psychiatric treatment and symptom management. Non-medical services are also accessed by this group and include community-based programs that implement psychosocial strategies to treat serious mental illness and promote mental health. One local community agency incorporates psychosocial strategies to include peer-based workshops that focus on strategies that improve mental health and mental health management. Individuals in this population participated in a program called *Healthy Choices*, a peer-based program that focuses on the improvement of physical health. The aim of the *Healthy Choices* program is to assist individuals with serious mental illness in making healthy lifestyle choices and promoting physical health. Another aim of the *Healthy Choices* program is to assist this population in setting and achieving health goals through peer-support. Some of the individuals of this population participated in Mental Wellness workshops facilitated by MHA staff. Mental Wellness groups focused on assisting individuals with serious mental illness with mental health management through the use of strategies that promote mental wellness.

Workshops offered that focused on mental health management include Mindful Meditation workshops, mental health peer support groups that cater to the needs of men and women, and expressive arts. During the recruitment process subjects were asked if they participated in both *Healthy Choices* and Mental Wellness groups or only in Mental Wellness groups (See Appendix E). This served the purpose of differentiating subjects that participated in *Healthy Choices* and Mental Wellness groups or only Mental Wellness groups. The purpose of this research is to ascertain if participation in *Healthy Choices* serves to produce a higher perception of QoL in this population when compared to a comparable group not attending *Healthy Choices*.

Methods of Data Collection

Data collection was obtained via the administration of the WQLI client questionnaire, WHODAS and a self-administered structured interview that would be used to collect qualitative information from the clients. Information gathered from each client participant from the HCMW and MW-only groups took a mixed methods approach and addressed both quantitative and qualitative measures. Collection of quantitative and qualitative measures occurred after participation in the *Healthy Choices* program. Data collection also included the procurement of demographic information.

Wisconsin Quality of Life Index

Prior to the creation of the WQLI client questionnaire, Becker proposed a theory of QoL and developed this evaluative tool for use in populations with serious mental illness. Becker et al. (1993) defined QoL as a perception of well-being that can stem from the satisfaction or dissatisfaction with life domains that are relevant to the client with serious

mental illness, including general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment. Each domain is evaluated individually in order to determine areas of significance that have an effect on the perception of QoL of the client (Becker et al., 1993).

In response to providing an appropriate instrument for evaluating perception of QoL in people with serious mental illness, Becker applied her theory of QoL to create the WQLI client questionnaire. In its beginning stages, this instrument was based on the Ferrans and Powers QoL Index (FPQLI). Although the FPQLI was known to be a reliable instrument in measuring QoL, it was not applicable to populations afflicted with serious mental illness. Therefore, Becker created an instrument that would be applicable to clients with serious mental illness, which became initially known as the QoL Index Mental Health (QLI-MH) (Becker et al., 1993). With community-based treatment programs becoming an alternative modality in managing serious mental illness, outcomes pertaining to QoL were becoming essential in determining effectiveness of such programs. Becker (1998) identified that mental health professionals have focused on QoL as a primary goal of mental health treatment and have expressed the need for an instrument that provides information on how to improve care that caters to QoL outcomes in clients with serious mental illness. One such instance involved the demand to provide an inexpensive, accurate and appropriate QoL instrument that would demonstrate the effectiveness of clozaril treatment in outpatient mental health clinics to the clients enrolled in Wisconsin Medicaid Program. To answer this need, Becker implemented the QLI-MH in order to accurately measure QoL and the effectiveness of clozaril treatment

in the community mental health setting (Becker et al., 1996). Following the implementation of the instrument and its demonstrated feasibility in both the clinical and research setting, it was renamed the WQLI client questionnaire.

The WQLI client questionnaire will be implemented to measure the domains that contribute to Becker's theory on QoL. The WQLI client questionnaire will also be used to determine if participation in *Healthy Choices* would improve perception of satisfaction in specific domains of interest. These domains of interest include physical health, social support, activities and occupations, and symptoms/outlook. Questions of significance that relate to the domains of interest include:

- What is the relationship between participation in either type of mental health program and a participant's perceptions of physical health?
- What is the relationship between peer-support in either type of mental health program and a participant's perceptions of relationships with others?
- What is the relationship between participation in either type of mental health program and a participant's perceptions of engagement in activities and occupations?
- What is the relationship between participation in either type of mental health program and a participant's perceptions of psychiatric symptom management?

In previous studies, testing was performed on the WQLI client questionnaire in order to determine the validity and reliability of the instrument. Becker et al. (1993) utilized the QoL Mental Health Index (QLI-MH) as a foundation in the development of a more comprehensive instrument that measures perception of QoL in individuals with serious

mental illness. In comparison to the QLI-MH, the newly established WQLI client questionnaire was designated a Pearson's correlation of 0.908 for the client questionnaire (Becker et al., 1993). Becker et al. (1996) later highlighted the significance of the WQLI client questionnaire in terms of measuring life domains in mentally ill populations by means of validating internal consistency for each domain on the client questionnaire. Cronbach's alphas for each domain are as follows: General Life Satisfaction (.8250), Physical Health (.7446), Symptoms/Symptoms outlook (.7707), Psychological Well Being (.7938), Occupation/Activities (.9343), Activities of Daily Living (.6697), Money/Economics (.6854) and Social Relations/Support (.7585). Caron et al. (2003) developed the Canadian version of the WQLI client questionnaire and established the reliability of the American version of the WQLI Client Questionnaire. To ensure that the WQLI client questionnaire was a suitable instrument to serve as a foundation for the Canadian version, test-retest reliability ranges were provided. Test-retest reliability percentage of agreement on the American version of the WQLI Client Questionnaire ranged from 0.82 to 0.87 (Caron et al., 2003).

For this study each client participant will be given the WQLI client questionnaire. The questionnaire was self-administered and required the client to respond to questions that address each life domain. Completion of the client questionnaires took approximately 20 minutes. The PI and MHAAT peer staff were available to answer questions and address concerns with clients and their caregivers. Approval to use of the WQLI client questionnaire was acquired from Dr. Marion Becker for use in this study (See Appendix C).

World Health Organization Disability Assessment Schedule

The integration of the WHODAS assisted in capturing the personal experience of a specific group that is afflicted with serious mental illness. Factors such as severity of cognitive impairment and psychiatric symptoms can interfere with treatment and perception of QoL. Üstün et al. (2010) indicated that incorporating an instrument that identifies level of health and disability is pertinent in guiding researchers and clinicians on treatment interventions and strategies that would lead to successful outcomes for vulnerable populations. Understanding the severity of psychiatric disability can assist in taking into account factors that contribute to perception of QoL in clients who participate in the *Healthy Choices* program.

To further identify the significance of this instrument in the supplementation of measures from the WQLI client questionnaire, components of the WHODAS will be presented. Üstün et al. (2010) identified that the six domains that are pertinent to measuring level of disability include: cognition, mobility, self-care, getting along, life activities and participation in social or community activities. The domain of cognition assesses a client's communication and thinking activities. Specific areas assessed include concentrating, remembering, problem solving, learning and communicating. Mobility assesses activities such as standing, moving around both inside and outside the home. The domain of self-care assesses hygiene, dressing, eating and staying alone. Getting along assesses interactions with others and difficulties that might be encountered due to the presence of a health condition. The domain of life activities assesses difficulty with daily activities. Activities can relate to functions that are associated with home or work. The domain of participation assesses social dimensions that involve community activities

and barriers in the client's environment. With the incorporation of these elements into addressing disability status, researchers and clinicians are provided with a depiction of the various levels of disability that can be encountered with each client.

Overall test – retest reliability for the WHODAS was 0.98, with a face validity of 64% (Üstün et al., 2010). Cronbach's alphas were established for the following domains: Cognition (0.94), Mobility (0.96), Self-care (0.95), Getting along (0.94), Life Activities – Household (0.94), Life Activities –Work (0.94) and Participation (0.95) (Üstün et al., 2010). Luciano et al. (2010) analyzed the dimensionality, internal consistency and construct validity of the WHODAS 2.0 in patients diagnosed with Major Depressive episode. Luciano et al. (2010) identified that the WHODAS 12-item questionnaire was an accurate measure that evaluated QoL, depression severity and associated psychiatric disability. An overall Cronbach's alpha was identified at 0.89 with a Pearson's r value found to be consistent with the 36-item version of the WHODAS 2.0 ($r > 0.70$) (Luciano et al., 2010).

The type of psychiatric diagnosis can present various levels of disability and with the integration of the WHODAS can help to ascertain the degree of psychiatric disability for each participant of the *Healthy Choices* program. Insertion of severity of psychiatric disability would serve the purpose of understanding how the level of client disability improved as a result of participation in the *Healthy Choices* program. Each client participant in both groups will be provided with the 12-item questionnaire and would approximately take 5 minutes to complete. Approval to use the WHODAS was acquired from the World Health Organization for use in this study (Appendix D).

Structured Interviewing

In order to complement quantitative measures of perceived QoL qualitative data will include the “lived experience” of the clients who participate in the HCMW and MW-only groups. Research analyzed from the literature review identified studies that included qualitative data to support the “lived experience” of the client in order to determine the efficacy of mental health programs on QoL outcomes. To obtain this information a phenomenological approach will be incorporated to understand the “lived experience” of how participation in the *Healthy Choices* program has affected the client and specific aspects of their QoL. Structured questions on the client interview included:

- Has participation in *Healthy Choices* improved your physical health? If so, how?
- How has peer-support helped you in being involved with *Healthy Choices*? Has participation in *Healthy Choices* improved your relationships with family and friends? Please describe.
- Since becoming involved with *Healthy Choices* have you engaged in new hobbies or gotten a job? Please describe.
- Since becoming involved in *Healthy Choices* how have symptoms of your mental health diagnosis improved or become more manageable? If so, please describe.

Clients who participate in mental wellness programs will be asked to respond to similar questions for comparison. Structured questions on the client interview for this group included:

- Has participation in mental wellness programs improved your physical health? If so, how?
- How has peer-support helped you in being involved with mental wellness programs? Has it improved your relationships with family and friends? Please describe.
- Since becoming involved with mental wellness programs have you engaged in new hobbies or gotten a job? Please describe.
- Since becoming involved in mental wellness programs has symptoms of your mental health diagnosis improved or become more manageable? If so, please describe.

Feasibility of Data Collection

Subjects for the study were provided by MHAAT and participate in either the *Healthy Choices* program or mental wellness programs provided by the organization. Instruments that measure QoL in this study take into account the potential for cognitive impairment, associated with a psychiatric condition, acting as a barrier to client responses and ability to answer questions. The WHODAS was also self-administered and included twelve questions that determined level of disability.

Operational Definitions

Measurements pertinent to the study were defined as follows. In order to identify the demographic characteristics of the sample group, questions that addressed demographics were included. Questions that collect this information addressed the subject's gender, highest grade completed, marital/relationship status, income status, ethnic background and living situation. Levels of measurement for demographic information are nominal.

QoL. Becker et al. (1993) theoretically defined QoL as a client's sense of well-being that can stem from the satisfaction or dissatisfaction with life domains that include: general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment. Becker, Shaw and Reib (1996) defined general life satisfaction as a measure that evaluates the client's level of satisfaction with general life conditions. This domain could include measuring satisfaction with living environment, housing, food, clothing, and mental health services. The domain of occupation and activities focuses on the client's daily activities related to work, school or mental health day programming (Becker et al., 1996). This domain could also include a focus on the capacity of the client to participate in daily work activities. Psychological well-being determines the client's current general emotional well-being and mental health at a given time. The domain of physical health examines the client's perspective on general physical health. The domain of social relations/support focuses on a client's satisfaction with social relationships. This domain also provides insight on a client's satisfaction with the amount of social support received by peers. The area of economics examines a client's satisfaction with monetary resources and control over finances. Activities of daily living evaluates the client's functional status and the ability to engage in independent living tasks (Becker et al., 1996). The domain of symptoms/outlook provides a subjective assessment of how psychiatric symptoms affect a client's QoL and functional ability. Goal attainment focuses on the client's achievement of mental health treatment goals and provides insight as to whether or not the client has achieved their goal.

The operational definitions of QoL relate to the life domain score on the WQLI client questionnaire and measured perception of satisfaction within the domains of general life satisfaction, occupation and activities, psychological well-being, physical health, social support/relations, economics, activities of daily living, and symptoms/outlook. Due to the subjective nature of goal attainment this domain will not be measured. Perception of satisfaction from questions derived in each domain will be rated via a Likert scale, with response choices ranging from “very dissatisfied” to “very satisfied”, producing an ordinal level of measurement. A total WQLI client questionnaire score will be derived by averaging the scores from each domain. Scores on the WQLI client questionnaire range from -3 (indicating poor perception of satisfaction with QoL) and +3 (indicating very good perception of satisfaction QoL). A score of 0 on the WQLI client questionnaire indicates an average perception of satisfaction with QoL for the target population.

Disability. Üstün et al. (2010) theoretically defined disability as the decline of functioning in the domains of cognition, mobility, self-care, getting along, life activities (household and work) and participation in social or community activities. The operational definition for disability is measured by a score for each domain on the 12-item WHODAS. The scores obtained from each domain are indicative of level of disability within the domains of cognition, mobility, self-care, getting along, life activities (household and work) and participation in social or community activities. Level of disability from questions derived in each domain will be rated via a five point Likert scale, with response choices ranging from 0 = none and 4 = extreme/cannot do, to produce an ordinal level of measurement. A score will be obtained from the instrument to

determine level of disability. Scores on the 12-item WHODAS can range from 0 (indicative of no disability) to 48 (indicative of severe disability).

Lived Experience. Qualitative analysis will take a phenomenological approach to examining the "lived experience" of both the HCMW and MW-only group and perception of QoL. For this study the self-administered structured interview would be administered. The written responses will be examined for themes that relate to improvement in perception of QoL and relevant life domains. Themes will be compared between the two groups.

Serious Mental Illness. Can be defined as an individual who presents with a mental, behavioral, or emotional disorder that results in functional impairment that interferes with life activities and meets diagnostic criteria established in the *Diagnostic Statistical Manual of Mental Disorders*.

Data Analysis

Analysis of the quantitative data was completed using SPSS 25. Statistical information collected and Mann-Whitney U Tests were used to analyze the relationship between participation in either the HCMW or MW-only group and perception of QoL. Disability was measured by the WHODAS and Mann-Whitney U tests were performed to analyze the relationship between participation in either the HCMW or MW-only group and level of disability. Mann-Whitney U tests were also performed to analyze the relationship between participation in either the HCMW or MW-only group and QoL domains addressed in the research questions. Qualitative data was collected from structured

interviews which involved the analysis of themes that contributed to the “lived experiences” of the participants of the HCMW and MW-only groups.

Summary

This chapter discussed the methodology utilized for the collection of data to support a mixed methods approach to research. Quantitatively this study took a non-experimental ex post facto approach and included various instruments that take into account both QoL and level disability of the subjects. A structured interview was included to address the collection of qualitative data in order to support a phenomenological approach to evaluating perception of QoL. The following chapter will present the results and the findings of the data analysis.

CHAPTER 4

Analysis and Findings

This chapter describes the data analysis used to answer the proposed research questions. The introduction of this chapter will begin with an overview of the study purpose. Demographic descriptive data of the participants will be included and will be followed by an analysis of results. Further analysis and discussion of significant findings in relation to other variables will be explored.

Purpose

The purpose of this study is to evaluate the impact of the *Healthy Choices* program on the QoL of the participants of the program. The *Healthy Choices* program assists participants with serious mental illness to make healthy lifestyle choices that could improve perception of QoL. In order to establish an improvement in perception of QoL through participation in the *Healthy Choices* program, subjective and objective measures were addressed with the implementation of the WQLI client questionnaire. The WHODAS was also included in order to complement the WQLI client questionnaire to determine if participation in *Healthy Choices* affects level of disability. To further support quantitative measures qualitative data was collected via the administration of a structured interview questionnaire. For this study the investigator implemented a mixed-methods design that triangulates both quantitative and qualitative data to address the phenomena of QoL. For this study the researcher gathered quantitative and qualitative

data via a survey and structured interview. Quantitative and qualitative data collected assisted in examining the following hypotheses and research questions:

Hypothesis 1: Clients who participated in *Healthy Choices* will have higher perception of QoL than those who participated only in Mental Wellness programs.

Null hypothesis 1: Clients who participated in *Healthy Choices* will not have a higher perception of QoL than those who participated only in Mental Wellness programs.

Hypothesis 2: Clients who participated in *Healthy Choices* will have lower level of disability than those who participated in only in Mental Wellness programs.

Null hypothesis 2: Clients who participated in *Healthy Choices* will not have lower level of disability than those who participated in only in Mental Wellness programs.

In order to expand upon the proposed hypotheses, specific research questions were identified in order to investigate additional aspects of QoL that could have been affected by participation in the *Healthy Choices* program and not specifically addressed in the WQLI client questionnaire. Research questions proposed included:

Research Question 1: What is the relationship between participation in either type of mental health program and a participant's perceptions of physical health?

Research Question 2: What is the relationship between peer-support in either type of mental health program and a participant's perceptions of relationships with others?

Research Question 3: What is the relationship between participation in either type of mental health program and a participant's perceptions of engagement in activities and occupations?

Research Question 4: What is the relationship between participation in either type of mental health program and a participant's perceptions of psychiatric symptom management?

Descriptive Data of Participants

Descriptive data for the sample was based on survey responses from 14 subjects who either participated in the HCMW or the MW- only groups. Among the 14 subjects that participated, 9 were from HCMW group and 5 were from the MW-only groups. Two participants were eliminated due to incomplete or missing data and the remaining participants answered all demographic survey questions. Frequencies and percentages are presented for the participants' gender, marital status, income resource, ethnicity, living situation and housing (see Table 1). Due to confidentiality concerns data regarding age was not collected. However, peers who attend the *Healthy Choices* and Mental Wellness groups are over the age of 18 years old with ages ranging from 18-64 years old.

Gender, marital status, income resource, ethnicity, living situation and housing were reported on 14 participants and data were collected at the categorical level. The number of females in this sample was 50% (n=7) and males comprised 50% (n= 7). Marital status included 71.4% (n=10) being single or never married, 7.1% (n = 1) being married and 21.4% (n =3) were divorced. Income resources included the following: Social Security Disability Income/ Social Security Income 57.1% (n = 8), Paid Employment 7.1% (n =1) and other income resources 35.7% (n=5). Other income resources include money from

family members. Racial/ethnic background of the subjects included 50% (n=7) White, 7.1% (n=1) Asian, 7.1% (n=1) African American, 7.1% (n=1) Hispanic/Latino and other 28.6% (n=4). Other race/ethnicities included participants who were of Caribbean (i.e. West Indian) or European descent (i.e. Italian). Living situation for this group includes; 57.1% (n= 8) living alone, 7.1% (n=1) living with children, 7.1% (N=1) living with parents, 7.1% (n=1) living with a significant other/partner. Type of housing identified by subjects included the following; 85.7% (n= 12) living in an apartment, 7.1% (n=1) living in a boarding home, and 7.1% (n=1) indicating other living arrangements. Other living arrangements include living in a combination of a boarding and apartment/ home environment.

Table 1
Descriptive statistics for sample

	N	%
Gender		
Males	7	50
Females	7	50
Marital Status		
Single/never	10	71.4
Married	1	7.1
Divorced	3	21.4
Income		
SSDI/SSI	8	57.1
Paid Employment	1	7.1
Other	5	35.7
Race / Ethnicity		
White	7	50
Asian	1	7.1
African American	1	7.1
Hispanic/Latino	1	7.1
Other	4	28.6
Living Situation		
Living Alone	8	57.1
Living with Children	1	7.1
Living with parents	1	7.1
Living with significant other/partner	1	7.1
Other	3	21.4
Housing		
Living in an Apartment	12	85.7
Living in a Boarding Home	1	7.1
Other	1	7.1

Analysis of the descriptive statistics revealed that the sample was predominantly single or never married, having an income resource that includes Social Security

Disability Income/ Social Security Income, White in terms of race/ethnicity, living alone and in an apartment or home. In terms of gender, there were equal number of males and females that participated in the study.

Analysis of Quantitative and Qualitative Data

In this section, analysis of both quantitative and qualitative data will be addressed to support a mixed method approach to data analysis. For this study the investigator implemented a mixed-methods design that triangulated both quantitative and qualitative data to address the phenomena of QoL in both the participants of the HCMW and MW-only groups.

Analysis of Quantitative Data

Data analysis for this study used IBM SPSS 25 to test variables. Data for the sample were based on 14 survey responses and respondents who did not completely answer survey questions were eliminated from the study.

In order to determine if participation in the *Healthy Choices* program was significant in producing higher perception of QoL in domains addressed in the WQLI client questionnaire and WHODAS scores a Mann-Whitney U test was performed (See Table 2). From this nonparametric test, it was determined that participation in the *Healthy Choices* program, when compared to those who only participated in Mental Wellness groups, did not produce any statistical significance in the domains that comprise measurement of perception of QoL in the WQLI client questionnaire. Domains that were analyzed for statistical significance included; General Life Satisfaction ($p=.947$), Activities/Occupations ($p=.160$), Psychological Well-being ($p=.789$), Symptoms/ Outlook ($p=.947$), Physical Health ($p=.504$), Social Support/ Relationships ($p=.584$),

Money ($p=0.096$), and Activities of Daily Living ($p=.841$). The level of significance for these analyses was $p < 0.05$. The results identified that participation in either the HCMW or MW-only groups did not have an effect on perception of satisfaction among the domains that contribute to perception of QoL. Potential factors that may have contributed to statistical insignificance could be due to inadequate sample size and misinterpretation by participants of questions asked on the WQLI client questionnaire. Therefore, qualitative data would be needed to support how participation in the *Healthy Choices* program would positively affect the domains that measure perception of QoL.

Table 2
Mann-Whitney U – Test: Domains of QoL HCMW vs MW-only group

Domains of QoL	Group	N	Mann-Whitney U	Mean	Standard Deviation	Asymp. Sig. (2-tailed)*
Gen. Life Satisfaction	HCMW	9	22.000	5.65	4.30	.947
	MW-only	5				
Occupations/ Activities	HCMW	9	12.000	4.35	5.21	.160
	MW-only	5				
Psychological Well-Being	HCMW	9	20.500	1.41	4.33	.789
	MW-only	5				
Symptoms/ Outlook	HCMW	9	22.000	5.20	4.98	.947
	MW-only	5				
Physical Health	HCMW	9	17.500	4.19	5.44	.504
	MW-only	5				
Social Support/ Relationships	HCMW	9	18.000	7.74	5.00	.548
	MW-only	5				
Money	HCMW	9	10.000	3.28	4.50	.096
	MW-only	5				
Activities of Daily Living	HCMW	9	21.000	6.78	4.56	.841
	MW-only	5				

*Mann-Whitney U Test is significant at $p < 0.05$ (2-tailed).

A Mann-Whitney U test was also performed to compare scores on the WHODAS and WQLI client questionnaire between the HCMW and MW-only groups (See Table 3).

Findings from the nonparametric test identified that there was no statistical significance in terms of scores on the WHODAS ($p=.548$) and WQLI ($p=.317$). The results identified

that participation in either the HCMW or MW-only groups did not have any positive or negative effect on level of disability and perception of QoL.

Table 3

Mann-Whitney U Test: WQLI and WHODAS scores HCMW vs MW-only group

	HC	N	Mann-Whitney U	Mean	Standard Deviation	Asymp. Sig. (2-tailed)*
WQLI	HCMW	9	15.000	1.21	.701	.317
	MW-only	5				
WHODAS	HCMW	9	18.000	14.21	7.30	.548
	MW-only	5				

*Mann-Whitney U Test is significant at $p < 0.05$ (2-tailed).

Analysis of Qualitative Data

In this study, the PI collected qualitative data in order to provide a comprehensive approach to examining perceptions of QoL in those who participated in both the HCMW and MW-only groups. Qualitative data from both the HCMW and MW-only groups were analyzed for comparison of themes that addressed the previously mentioned research questions.

Healthy Choices Mental Wellness Group

Themes identified with the HCMW group included the development of a perception of improvement in physical and mental health, empowerment in making healthier lifestyles choices, and engaging in physical activity. Participants of the HCMW group attended both the *Healthy Choices* workshops and mental wellness groups provided by MHAAT. In terms of perception of improvement in physical and mental health, the participants perceived that becoming involved in the *Healthy Choices* program assisted them in

developing an awareness of how healthy lifestyle choices promoted improved management of physical and mental health:

Subject A: "It (symptoms of mental health diagnosis) has improved and become manageable."

Subject B: "Improved (symptoms) - because of healthy foods I have more energy."

Subject C: "Improved (symptoms of mental health diagnosis) - I'm really trying to be more aware of my triggers."

It was perceived that eating healthier assisted participants of this group to "feel well" and recognize how making healthy food choices helped further manage their mental health:

Subject G: "If I eat healthier I don't get sick to my stomach. It has helped with eating habits and feeling better. If I can eat healthier, I will feel better...Eating healthy has helped me with my mental wellness."

Subject H: "Being in Healthy Choices has helped me feel better, when I eat healthier, and because I feel better I participate in other MHAAT groups like art therapy."

Participants of the HCMW group perceived that they felt better because of making healthier lifestyle choices, which also encouraged them to socialize and pursue healthy social relationships:

Subject A: "I share extra food, help others."

Subject C: "I'm building up a relationship with my daughter."

Subject E: "I've been around people more for healthy socialization."

Participants also perceived that by regularly including healthier lifestyle choices that promoted both physical and mental health they were motivated to engage in new

activities, such as obtaining employment and engaging in activities that promoted physical health:

Subject B: “Yes (in reference to engaging in new hobbies) walking more in nature.”

Subject F: “I filled out applications at Stop and Shop so I could do things I could do and stock shelves...just getting a great job.”

Feeling empowered to make healthier lifestyle choices was another theme identified by participants of the HCMW group. Empowerment can be defined as the ongoing ability of individuals or groups to act on their own behalf to achieve a greater measure of control over their lives and destinies (Alegría et al., 2008). Through involvement in the *Healthy Choices* program, the HCMW participants developed a perceived ability in making healthy lifestyle choices and routinely incorporating them into their daily lives to promote health. The HCMW participants, through this perceived ability in making healthy lifestyle choices, were able to identify healthier food options and “substitute foods” that promoted a healthier lifestyle:

Subject E: “I’ve learned which foods have a lot of sugar and fat and have them in moderation.”

Subject H: “I started using more Splenda’s than regular sugar. I have issues with blood sugar.”

Subject J: “I learned to have an open mind. When I decided to go through Healthy Choices it helped me to eat greens and keep away from soda. The Healthy Choices kept me engaged in reading labels.”

Therefore, empowerment is demonstrated by the HCMW participants as a perceived ability to take control of their health by making healthy food and lifestyle choices. Some participants also developed an ability to perceive how making healthier lifestyle choices could affect weight and weight management:

Subject J: “(Healthy Choices) kept me aware of my weight and helped with my food preparation. I include more greens in my diet.”

In this instance, empowerment is demonstrated by the HCMW participant’s perceived ability to implement strategies that assist in maintaining weight and promoting health.

Engagement in physical activity was an additional theme that was identified among this group. The combination of perceived improvement in physical and mental health and ability to make healthy lifestyle choices influenced participants of the HCMW group to engage in physical activity. The HCMW participants perceived that the *Healthy Choices* program encouraged them to participate in activities such as chair yoga and Zumba. Participants also perceived that being involved in the *Healthy Choices* program encouraged them to explore other forms of physical activity:

Subject E: “I helped a little bit with the gardening last year, but don’t garden on my own.”

Subject J: “(Healthy choices) helped me go to a chair yoga class and Zumba class. It helped me to find activities that kept me physically active.”

Mental Wellness Only Group

Themes identified with the MW-only group focused on the perception of mental health management and associated symptoms. Participants in the MW-only group attended workshops conducted by MHAST that focused on strategies that improve mental health management. Unlike the HCMW participants, workshops that were attended by the participants of the MW-only group did not include the implementation of strategies that assisted in the improvement of physical health.

In terms of perception of mental health management and associated symptoms, the MW-only participants perceived that being a part of mental wellness groups assisted in enhancing management of psychiatric symptoms:

Subject L: “Depression more manageable. I have hope for life and job satisfaction.”

Subject M: (In reference to having symptoms being more manageable) “Yes, less dreams.”

Subject N: (In reference to improvement of symptoms) “Yes, clarifies position in life in remaining independent and clarify goals and eliminated stress in my life.”

Subject O: (In reference to having symptoms being more manageable) – “Sometimes it does...doing projects at MHAAT helps me to be mentally well. It is a positive.”

Although participation in mental wellness workshops served to assist in the management of a participant’s mental health condition and symptoms, it did not fully assist with promoting physical health or an aspect of making healthy lifestyle choices that promotes both physical and mental health:

Subject L: “Happier more energy. Possibly – thinking.”

Subject N: (In reference to participation in mental wellness groups and physical health) “They improve my health a little bit – help me clarify health goals and structure.”

Role of Peer-Support

Including peer-support in programs that assist in mental health recovery can be beneficial and could enhance a client’s perception of satisfaction with their social support network. Presence of social support is a key component to psychological health and is essential in recovery of clients with a serious mental illness (Hendryx et al., 2009). Participants in both the HCMW and MW- only groups shared a common perception that peer-support assisted them in promoting mental health or mental and physical health.

Participants of the HCMW and MW-only groups perceived that support from peers encouraged them in making healthy lifestyle choices (i.e. choosing healthy food options) or engaging in more social interaction:

HCMW participants:

Subject H: "I eat healthier. The peers that go to Healthy Choices has helped me eat better."

Subject J: "The peers helped me going to the Healthy Choices program and how to cook better and make healthy choices."

MW-only participants:

Subject O: (Peer support) helps me to be more interactive with other people. I try to make an effort."

Subject L: "I'm more laid back, relaxed, calmer. Better able to be there for others conversationally."

Support from peers also assisted some participants of the MW-only group with improving perception of self-esteem and making them "feel alive" and "intellectual":

Subject I: "Peer support did help. Has helped me with my friend. I feel alive. I feel intellectual and they know me."

Including peer-support as a foundation for the HCMW and MW-only groups assisted subjects in building healthy relationships with family and friends and engaged some in new hobbies:

HCMW participants:

Subject C: "I'm building up a relationship with my daughter."

Subject E: "I've been around people more for healthy socialization."

MW-only participant

Subject M: "(In reference to how peer-support has helped) Yes, reading the hand of mindfulness."

Including support from peers in both the HCMW and MW-only groups could facilitate enhanced social interaction and improved relationships with others, as well as peers, and in some aspects promote the sharing of ideas on how to make healthy lifestyle choices.

Triangulation of Quantitative and Qualitative Data

To further support a mixed methods approach the triangulation of both quantitative and qualitative data will be applied to determine if the hypotheses and research questions identified in the study are supported by the quantitative and qualitative findings.

Hypothesis 1

Clients who participated in Healthy Choices will have higher perception of QoL than those who participated only in Mental Wellness programs.

When comparing results from the Mann-Whitney U Test between the HCMW and MW- only groups, the analysis identified that participation in the *Healthy Choices* program did not contribute to a higher perception of satisfaction among the domains that comprise perception of QoL. These domains include; General Life Satisfaction ($p=.947$), Activities/Occupations ($p=.160$), Psychological Well-being ($p=.789$), Symptoms/ Outlook ($p=.947$), Physical Health ($p=.504$), Social Support/ Relationships ($p=.584$), Money ($p=0.096$), and Activities of Daily Living ($p=.841$). Since participation in the *Healthy Choices* program did not affect perception of satisfaction within the aforementioned domains, participation in the program also did not contribute to a higher perception in QoL on the WQLI ($p=.317$). Therefore, results of the Mann-Whitney U test identified that the null hypothesis could not be rejected.

Thus, quantitative findings do not support that participation in the *Healthy Choices* program improves perception of satisfaction within relevant domains and overall QoL.

However, qualitative data identified that due to the inclusion of strategies that address physical and mental health, participants of the HCMW group had an improved perception of satisfaction in terms of physical and mental health and ability to make healthier lifestyles choices. In terms of promotion of physical and mental health, some of the participants in the HCMW group perceived that the *Healthy Choices* program assisted them in developing an awareness on how healthy lifestyle choices promotes improved management of physical and mental health. Participants of this group perceived that eating healthier assisted them to “feel well” and recognize how healthy food choices improved symptoms of their mental health condition. Learning about the importance of making healthy lifestyle choices gave the HCMW participants a perceived ability to include these choices in order to support their physical and mental health. A perceived improvement in physical and mental health and ability to make healthy lifestyle choices also encouraged participants of the HCMW to engage in regular physical activity. The presence of these perceptions among the HCMW participants could contribute to a higher perception of their QoL. For comparison, participants of the MW- only group perceived that participating in mental wellness programs only assisted them in improving their perception of mental health management and associated symptoms. Participants of the MW-only group did not perceive an improvement in physical health or ability in making healthy lifestyle choices that promote physical and mental health. Absence of strategies that integrate the physical and mental aspects of mental health management may lead to outcomes that could have a negative effect on physical health and perception of QoL.

Hypothesis 2

Clients who participated in Healthy Choices will have lower level of disability than those who participated in only in Mental Wellness programs.

When comparing results from the Mann-Whitney U Test between the HCMW and MW- only groups, the analysis identified that participation in the *Healthy Choices* program did not contribute to a lower level of disability on the WHODAS ($p = .548$). Therefore, results of the Mann-Whitney U test identified that the null hypothesis could not be rejected.

Although quantitative findings identified that participation in both groups did not affect level of disability. Qualitative findings identified that improvement in level of disability was dependent upon if the programs provided focused on improving mental health or both mental and physical health. Participation in the HCMW group included a focus on strategies that promoted improvement in both physical and mental health. Participants of this group perceived that making lifestyle choices, that promoted physical and mental health, assisted them in feeling less physically and psychologically disabled. Perceived reduction in physical and psychiatric disability among the HCMW participants further facilitated engagement in activities that promote healthy lifestyle behaviors. Participation in the MW-only group included a focus on strategies that promoted mental health. Participants of the MW-only group perceived that participating in mental wellness programs only assisted them in feeling less psychologically disabled. Programs that assist in reducing disability through strategies that improve physical and mental health, could facilitate improvement in physical and psychiatric disability. Presence of less severe psychiatric and physical disability could in essence contribute to an improved perception of QoL.

Research Question 1

What is the relationship between participation in either type of mental health program and a participant's perceptions of physical health?

Although quantitative findings identified no statistical significance among participants of the HCMW and MW-only group in terms of perception of satisfaction in the domain of Physical Health ($p=.504$), qualitative findings identified an improved perception with physical health among the participants of the HCMW group. Participants of the HCMW group perceived that the *Healthy Choices* program assisted them in developing an awareness on how making healthy lifestyle choices improved physical health. Participants of the HCMW group who made regular healthy lifestyle choices perceived to have “more energy” and the ability to engage in activities that further promoted physical health. In comparison, participants of the MW-only group perceived improvement in only their mental health, not physical health. Programs that include strategies that aim to improve both physical and mental health could assist in improving perception of physical health.

Research Question 2

What is the relationship between peer-support in either type of mental health program and a participant's perceptions of relationships with others?

While quantitative findings identified no statistical significance among participants of the HCMW and MW-only groups in terms of perception of satisfaction in the domain of Social Support/Relations ($p=.548$), qualitative findings identified that participants of both groups perceived that peer-support assisted them in establishing satisfactory relationships with friends, family members and peers. Participants of the HCMW group perceived that

peer-support also assisted them in establishing relationships with others that encouraged engagement in healthy lifestyle behaviors that promoted both physical and mental health. Participants of the MW-only group perceived that peer-support assisted them in establishing relationships with others that improved self-esteem and social interactions. Programs that include peer-support as a foundational aspect of mental or both mental and physical health management could assist in influencing the promotion of adequate social relationships that in turn improve perception of relationships with others.

Research Question 3

What is the relationship between participation in either type of mental health program and a participant's perceptions of engagement in activities and occupations?

Although quantitative findings identified no statistical significance among the participants of the HCMW and MW groups in terms of perception of satisfaction in the domain of Activities and Occupations ($p=.160$), qualitative findings identified an improved perception with engagement in activities and occupations among participants of the HCMW group. Participants of this group perceived that by regularly including healthy lifestyle choices into their daily lives they had “more energy” and were motivated to obtain employment or engage in activities that promoted physical health. Participants of the MW-only group perceived a minimal improvement in engagement in activities and occupations, but primarily reported an improved perception in the management of psychiatric symptoms. Programs that include strategies that aim to improve both physical and mental health could facilitate an improved perception of engagement in activities and occupations.

Research Question 4

What is the relationship between participation in either type of mental health program and a participant's perceptions of psychiatric symptom management?

While quantitative findings identified no statistical significance among the participants of the HCMW and MW groups in terms of perception of satisfaction in the domain of Psychological Well-being ($p = .789$) and Symptoms/Outlook ($p = .947$), qualitative findings identified an improved perception in management of psychiatric symptoms among both groups. Participants of the HCMW group perceived that including healthy lifestyle choices into daily life promoted improvement in the management of psychiatric symptoms. For instance, some participants of the HCMW group identified that by eating healthier it assisted them in feeling mentally well. Participants of the MW-only group perceived an improvement in the management of psychiatric symptoms as a result of participation in workshops that provided mental health management strategies. Although both the HCMW and MW-only groups experienced an improved perception in the management of psychiatric symptoms, it appeared to come from different avenues. Programs that focus on improving psychiatric symptoms should take in account both physical and mental aspects of managing psychiatric symptoms.

The comparison of quantitative and qualitative data was included to support how participation in the *Healthy Choices* program assisted participants in making healthy lifestyle choices which could contribute to their perception of QoL and level of disability. Including qualitative data also assisted in mediating factors, such as a small sample size, that would not have provided an accurate representation of how participation in the *Healthy Choices* program could affect perception of QoL and level of disability.

Although collection of quantitative data via the administration of the WQLI client questionnaire and WHODAS did not identify any statistical significance stemming from participation in the *Healthy Choices* program, it could serve as an instrument that measures the domains that address perception of QoL and level of disability in clients with serious mental illness.

Summary

This chapter provided an overview of the sample demographics. Participants who attend workshops at MHASt were single or never married, had an income resource that includes Social Security Disability Income/ Social Security Income, White, living alone and in an apartment or home. An equal number of males and females participated in the study.

Descriptive analysis revealed that participation in the *Healthy Choices* program did not contribute to a higher perception of satisfaction among the domains that comprise QoL. It also did not contribute to improved perception of QoL. Qualitative data identified that participants who attended the *Healthy Choices* program developed a perception of improvement in physical and mental health, empowerment in making healthier lifestyles choices, and engaging in physical activity.

Descriptive analysis revealed that participation in the Healthy Choices program did not contribute to a lower level of disability. Qualitative findings revealed that providing community-based programs that address mental health or both physical and mental health strategies could have an impact on level of psychiatric or both psychiatric and physical disability. Findings also revealed that including peer-support as a foundation for

community-based programs that address mental health or both physical and mental health facilitates healthy relationships with other peers and family members.

Although descriptive analysis revealed that participation in *Healthy Choices* did not show higher levels of perception of physical health, engagement in activities and occupations, and psychiatric symptoms, qualitative findings differed. Qualitative findings identified that through participation in the *Healthy Choices* program, participants experienced a heightened perception of physical health, engagement in activities and occupations, and psychiatric symptoms.

CHAPTER 5

Summary and Conclusions

This chapter provides a synthesis of the research findings and integrates them into the guiding framework for this study, Marion Becker's theory on QoL (Becker et al., 1993). A brief synopsis of the problem, study purpose and Becker's theory on QoL will be presented. Limitations of the study, implications for nursing, and suggestions for future research will be included.

Background

Since the deinstitutionalization of the mentally ill, community-based programs have become an integral component in the management of mental health among this population. In terms of Medicaid service utilization, 58.3% of Medicaid utilization was generated in the form of non-behavioral health services (NYSOMH, 2015). Non-behavioral health services include care that addresses emergency and inpatient medical-surgical care. Due to the prevalence of serious mental illness creation of sufficient community-based services that focus on mental and physical health would help meet a need for a comprehensive approach to mental health treatment in the community. Implementation of community-based healthy living programs would serve the purpose of assisting in improving perception of QoL among the mentally ill and prevent hospitalizations.

QoL is an essential component of health assessment in the determination of well-being in an individual. The concept of QoL is commonly interpreted as a perception that includes a positive psychological outlook and satisfaction with general well-being. The

analysis of QoL can assist researchers in meeting the needs of vulnerable populations, whether it be mental, physical or spiritual in nature. Evaluating perception of QoL among populations with serious mental illness is essential in understanding factors that negatively or positively influence perceptions of general well-being and life satisfaction.

Although perception of QoL has been previously measured in populations with serious mental illness (Becker, 1998), it is essential to evaluate QoL as an outcome that stems from participation in a community-based healthy living programs. Since the deinstitutionalization of the mentally ill, community-based programs that assist in the treatment of this population have been essential in the transition of this group to community living (Lehman, 1988). Environmental and social factors that have presented as challenges to this population play an integral role in perception of QoL.

Purpose

The purpose of this study was to evaluate the impact of the *Healthy Choices* program on the perception of QoL among the participants of the program. Subjective and objective data were examined using a mixed methods approach. Administration of the WQLI client questionnaire measured the domains that contribute to Marion Becker's theory on QoL. The WQLI client questionnaire was also used to determine if participation in *Healthy Choices* would be related to higher levels of perception of satisfaction in specific domains of interest. These domains of interest include the areas of physical health, activities and occupations, social support/relationships and symptoms/outlook.

Guiding Framework

Becker's theory on QoL was used to determine if participation in *Healthy Choices* improved perception of satisfaction in the domains addressed in her theory. Becker et al.

(1993) defined QoL as a perception of well-being that can stem from the satisfaction or dissatisfaction with life domains that are relevant to the client with serious mental illness. Life domains that are relevant in measuring perception of QoL in this population include the areas of general life satisfaction, occupation and activities, psychological well-being, physical health, social relations/support, economics, activities of daily living, symptoms/outlook and goal attainment.

Application of Frameworks that Address Quality of Life and Disability

Research inquiries were formulated within the frameworks of both Becker's theory on QoL and the WHODAS in order to understand how participation in the *Healthy Choices* program assisted in improving perception of QoL and level of disability. In this study the PI formulated two hypotheses. The first hypothesis proposed that clients who participated in *Healthy Choices* will have higher perception of QoL than those who participated only in mental wellness programs. Participation in a community-based programs that implement measures to address both physical and mental health was examined to determine if it had an impact on the domains that contribute to the perception of QoL. Participation in community-based programs that engage individuals with serious mental illness in making healthy lifestyle choices could facilitate an improved perception of their QoL. When comparing results from the Mann-Whitney U Test between the HCMW and MW only groups, the analysis identified that participation in the *Healthy Choices* program did not contribute to a statistically significant perception of satisfaction among the domains that comprise the score for the WQLI client questionnaire ($p > 0.05$). The analysis also identified that participation in the *Healthy Choices* program did not contribute to a statistically significant higher perception in QoL

based on scores on the WQLI client questionnaire ($p > 0.05$). However, qualitative data identified that because of participating in the *Healthy Choices* program, participants developed a perception of improvement in physical and mental health, empowerment in making healthier lifestyles choices, and engaging in physical activity.

The second hypothesis proposed that clients who participated in *Healthy Choices* will have lower level of disability than those who participated in only in mental wellness programs. The Mann-Whitney U test identified that participation in the *Healthy Choices* program did not contribute to a statistically significant lower level of disability based on score on the WHODAS ($p > 0.05$). Quantitative findings did not identify statistical significance in terms of lower level of disability through participation in the *Healthy Choices* program. Qualitative data identified that providing a form of community-based program that addresses mental health or both physical and mental health could have an impact on level of physical and psychological disability.

Research question one examined the relationship between participation in a type of mental health program and perceptions of physical health. A Mann-Whitney U Test was performed to determine if participation in the *Healthy Choices* program influenced the perception of a participant's physical health. Quantitative findings identified no statistically significant improvement in perception of satisfaction in the domain of Physical Health between the HCMW and MW-only groups ($p > 0.05$). However, when qualitative findings were assessed the participants of the HCMW group did perceive improvement with overall physical health. Participants of the MW-only group perceived only an improvement in mental health, not physical health. This disparity in perception could occur as a result of the type of strategy that was implemented for the participants in

both the HCMW and MW-only groups. Implementation of strategies that focus on physical health in individuals with serious mental illness could assist in improving perception of physical health (Green et al., 2015). Participants of the HCMW group were exposed to strategies that promoted physical health through participation in the *Healthy Choices* program. As a result, participants of the HCMW group developed a perceived improvement in physical health. In contrast, participants of the MW-only group participated mainly in mental wellness programs which had a focus on strategies that improved mental health. Exposure to strategies that focused on mental health could have led to a perceived improvement in mental health and not physical health.

Research question two examined the relationship between peer-support in either type of mental health program and perceptions of relationships with others. Although the Mann-Whitney U Test performed identified no statistically significant improvement in perception of satisfaction in the domain of Social Support/Relations between the HCMW and MW-only groups ($p>0.05$). Qualitative findings identified that participants of the HCMW and MW-only groups shared a common perception that peer-support assisted them in promoting relationships with family members, friends and peers. This commonality may have occurred due to the inclusion of peer-support, as a form of social support, in both the HCMW and MW-only groups. Social support is identified as the perceived availability of others to provide support and has been associated with improvement in psychiatric symptoms and QoL (Yasien et al., 2013). Presence of adequate social support assists in reducing psychiatric symptoms which in turn could also improve social interactions with family, friends and peers. Including peer-support as a form of social support for participants in both the HCMW and MW-only groups may

have played an integral role in the promotion of healthy relationships and social interactions.

Research question three examined the relationship between either type of mental health program and perceptions of engagement in activities or occupations that contribute to QoL. Although the Mann-Whitney U Test identified no statistically significant improvement in terms of satisfaction in the domain of Activities and Occupations between the HCMW and MW-only groups ($p>0.05$). Qualitative findings identified that participants of the HCMW group perceived that by regularly including healthier lifestyle choices into their daily lives they had “more energy” and were motivated to engage in new activities and seek employment. Participants of the MW-only group perceived minimal engagement in activities and occupations. This disparity in perception could occur as a result of the type of strategy that was implemented for the participants in both the HCMW and MW-only groups. Implementing strategies that support individuals with serious mental illness in making healthy lifestyle choices could influence engagement in activities that assist in the continued promotion of physical and mental health (Green et al., 2015). Participants of the HCMW group were exposed to strategies that assisted them in making healthy lifestyle choices in their daily lives. Including these strategies promoted physical and mental health which may have contributed to the perception of the participants’ ability to engage in new activities. In contrast, participants of the MW-only group were exposed to strategies that focused on mental health which may have contributed a perception of minimal engagement in activities.

Research question four examined the relationship between either type of mental health program and perceptions of psychiatric symptom management. Although the Mann

Whitney U Test identified no statistically significant improvement in terms of satisfaction in the domain of Psychological Well-being and Symptoms/Outlook between the HCMW and MW-only groups ($p>0.05$). Qualitative findings identified that participants of the HCMW and MW groups perceived their psychiatric symptoms to be more manageable. Although both groups shared this perception, participants of the HCMW group had the added benefit of developing a perception that emphasized how healthy lifestyle choices influenced management of psychiatric symptoms. Implementing strategies that promote physical and mental health have been associated with an improved perception of psychiatric symptoms (Deenik et al., 2017; Tessier et al., 2017). Participants of the HCMW group were exposed to strategies that promoted physical and mental health through making healthy lifestyle choices. This may have contributed to the enhanced perception of their psychiatric symptoms being more manageable in comparison to participants of the MW-only group.

General Discussion of Findings

Since the implementation of community – based programs that focus on treatment of serious mental illness, QoL has become an important concept that addresses the efficacy of these programs on well-being (Becker et al., 1993). When considering community-based mental health treatment as a part of mental health management, community-based programs should include strategies that improve physical and mental health. Green et al. (2014) identified including lifestyle interventions as part of mental health treatment can be effective in reducing mortality and improving mental health management. Programs that utilized these strategies could influence a continued engagement in healthy lifestyle choices that improve perception of physical and mental

health, engagement in daily activities and occupations and QoL. Since there was no statistical significance identified among participants of the HCMW and MW-only group in terms of level of perception of physical and mental health, engagement in activities and occupations and QoL ($p>0.05$). Qualitative findings identified that among participants of the HCMW group, programs that address mental and physical aspects of mental health care could assist in enhancing perception of physical and mental health, engagement in activities and occupations and QoL.

Community-based programs that include strategies that improve physical and mental health could lead to less severe psychiatric and physical disability. Deenik et al. (2017) identified that participation in pursuits that improve physical health in clients with serious mental illness could have a positive effect on physical health, psychiatric symptoms and perception of QoL. Since there was no statistical significance identified among participants of the HCMW and MW-only group in terms of improvement in level of psychiatric and physical disability ($p>0.05$). Qualitative findings identified that among the participants of HCMW group, programs that assist clients with making healthy lifestyle choices could improve level of psychiatric and physical disability.

Community-based programs that include strategies that promote physical and mental health should include an emphasis on peer-support in order to facilitate an improved perception in social relationships and physical health outcomes. Including peer-support in these programs could also lead to an improved perception of adequacy of social support systems, mental health recovery and QoL. Hendryx et al. (2008) identified that perceptions of adequate social support systems were associated with improved mental health recovery outcomes. Since there was no statistical significance identified among

participants of the HCMW and MW-only group in terms of improvement in perception of social support and relationships ($p > 0.05$). Qualitative findings identified that among the participants of the HCMW and MW-only groups both shared a common perception that peer-support assisted them in improving their mental health or mental and physical health, self-esteem and relationships with others.

Limitations

The following discusses limitations of the study. Generalizability of the findings can be limited to the population that was included in the study. The sample was collected via convenience sampling and was limited to participants who attend programs at the Mental Health Association of the Southern Tier. The findings were also affected because the sample size collected for the study was small ($n = 14$). In order to collect an adequate sample, surveys were conducted in person and over the telephone. In terms of participation, the clients that attend programs at MHA ST live independently in the community and did not have caregivers or caregivers that were willing to participate in the study. Timing of survey administration served as another limitation in that those who expressed an initial interest in attending the survey day could not attend. Another limitation included an impending change in location of the MHA ST facility, which in turn may have affected recruitment and participation in the study.

In anticipation of MHA ST moving to a new facility, location change of the facility may have made subjects hesitant to participate, which may have also resulted in transportation concerns. Depending on the time of day or year some subjects were not willing to participate in the study. For instance, most subjects had a doctor's visit during a specific part of the day that conflicted with survey administration times. Surveys were

also administered over the course of the summer and weather may not have been favorable to encourage subjects to come to the facility to complete surveys. At some points during the study, subjects were not inclined to answer questions that addressed specific topics (i.e. finances). This could be due to the fact that subjects perceived the PI as more of a researcher or “outsider” who could have made the subject feel uncomfortable with disclosing certain pieces of information.

Significance for Community Dwelling Individuals Receiving Mental Health Services

Community-based programs that provide mental health services should include strategies that improve physical and mental health among individuals with serious mental illness. Strategies that address the physical and mental aspects of care could assist in providing a comprehensive approach to mental health treatment that reduce factors which could negatively impact perception of QoL. For instance, use of psychotropic medications could lead to higher mortality and the development of disease processes that result in a poor perception of QoL. Green et al. (2014) emphasized that individuals taking psychotropic medications are at an increased risk for obesity, diabetes, cardiovascular disease and subsequent mortality. Community-based programs, similar to *Healthy Choices*, should focus on mediating the impact of psychotropic medications on physical health. Mediation of the physical effects of psychotropic medications could be facilitated through the implementation of strategies that promote healthy lifestyle choices. Implementation of strategies that promote healthy lifestyle choices could further assist in improving perception of effects of psychotropic medications on physical health and QoL.

Community-based programs that provide mental health services should explore alternative strategies that promote the management of psychiatric symptoms among

individuals with serious mental illness. Although psychotropic medications are commonly used to manage psychiatric symptoms strategies that integrate aspects of making healthy lifestyle choices could improve perception of psychiatric symptom management. Deenik et al. (2017) emphasized that encouraging individuals with serious mental illness in making healthy lifestyle choices (i.e. engaging in physical activity) could improve management of psychiatric symptoms. Including strategies that focus on psychiatric symptom management via health lifestyle choices could also improve level of psychiatric and physical disability and a reduce dependency on psychotropic medications. Improvement in these areas could result in an improved perception of QoL.

Community-based programs that include a focus on addressing physical and mental health should also include an emphasis on providing peer-support as a means of assisting individuals with serious mental illness in maintaining health goals and healthy lifestyle choices. Including peer-support in these types of community-based programs could also assist participants in building social support networks and healthy relationships with others.

Research and Practice Implications

Research Implications

This study contributes research on how participation in community-based healthy living programs, such as the *Healthy Choices* program, assists with altering mental and physical health and perception of QoL in individuals who receive mental health care in the community. Creation of sufficient community-based services that focus on mental and physical health would help to meet a need for a comprehensive approach to mental health care treatment and improvement in perception of QoL. Implementation of

community-based healthy living programs would serve the purpose of assisting in improving perception of QoL among the mentally ill and prevent hospitalizations.

Although quantitative findings did not identify an improvement in all domains that measure perception of QoL through participation in the *Healthy Choices* program, this study suggests that based on qualitative findings that participation in *Healthy Choices* does have an effect on improvement in satisfaction with both physical and mental health, engagement in physical activity and empowerment to make healthier lifestyles choices. With this knowledge implications for future research would suggest a further investigation as to how certain factors, such as perception of satisfaction with community mental health services, could contribute to perception of physical and mental health. Other inquires could also address if perception of satisfaction in areas such as finances could have an impact on an individual's ability in making healthy lifestyle choices.

In this study, quantitative findings did not identify a statistically significant improvement in perception of satisfaction with psychiatric symptoms through participation in the *Healthy Choices* program. Qualitative findings suggest that participation in *Healthy Choices* provided a comprehensive approach to symptom management by assisting participants in developing an enhanced perception on how healthy lifestyle choices improves management of psychiatric symptoms. Further research suggests an investigation as to how participation in *Healthy Choices* could affect psychiatric medication compliance and side effect management. Other inquires would address if consistent engagement in healthy lifestyle behaviors could assist in the perception of reliance on psychiatric medication in the management of psychiatric symptoms.

A final research implication would be the feasibility of a program similar to *Healthy Choices* in the inpatient psychiatric setting. For this study, the target population was focused on mentally ill individuals receiving mental health treatment in the community setting. Implications for future research would investigate the feasibility of providing a program that implements strategies that focus on improving mental and physical health to mentally ill clients in psychiatric facilities. Inquiries related to this research could investigate barriers and facilitators of implementing a program similar to *Healthy Choices* in psychiatric facilities and its effectiveness in promoting both physical and mental health to clients in the inpatient setting.

Implications for Nursing Practice

Due to the unique nature of the *Healthy Choices* program, its application can be used in various settings. Although this program can be implemented in various settings, the mental health community in particular would benefit from this health promoting program. Cardiovascular disease and other comorbid conditions associated with the use of psychotropic medications have been known to significantly reduce the lifespan of individuals with serious mental illness. With the implementation of *Healthy Choices* in settings, such as an outpatient mental health center, those with serious mental illness would have access to resources in the community that would educate and encourage the promotion of mental and physical health. The availability of a program, like *Healthy Choices*, would assist community dwelling individuals receiving mental health care in becoming motivated to identify and achieve goals that not only improve physical and mental health, but also QoL.

With the availability of a community health nurse (CHN) in a facility, such as the Mental Health Association of the Southern Tier, measures can be in place that would guide clients with serious mental illness in achieving optimal mental and physical health. In order to meet the mental and physical health needs of this population, the CHN must establish a rapport with the target population, be open to collaboration with key informants and conduct an assessment in order to address health concerns that affect QoL among those with serious mental illness. When assisting community dwelling individuals with serious mental illness in health promotion, the CHN must take into consideration subjective and objective measures that can impact the QoL of this group. Use of psychiatric medications, social and environmental influences that affect this group must be understood in order to promote both physical and mental health. Understanding these factors can also assist the CHN in the modification of these factors that would lead to improved health and QoL.

Programs similar to *Healthy Choices* could be applied to other populations such as clients being treated for a serious mental illness in the inpatient setting. Health care facilities that include mental health units could customize a program that is similar to the *Healthy Choices* program for inpatient mental health care. Although a program similar to *Healthy Choices* could be applied to the inpatient setting, an assessment of the physical, mental and emotional stability of inpatient clients must be addressed. Financial constraints and availability of space in an inpatient unit may prevent the implementation of this health promoting program. If a program is not feasible in this setting, the CHN can serve as a resource to programs in the community that can assist clients with serious

mental illness in achieving physical /mental health and improvement in QoL after discharge.

Conclusions

Participation in community-based healthy living programs could assist community dwelling individuals with serious mental illness in assisting with promoting both mental and physical health, as well as improvement in perception of QoL. Implementation of community-based healthy living programs would also serve the purpose of reducing physical and mental health care expenditures and prevent hospitalizations.

There are three main contributions of this research including:

a) Implementation of community-based healthy living programs, like *Healthy*

Choices, could assist community dwelling individuals with serious mental illness in making healthier lifestyle choices that assist with management of both physical and mental health, including psychiatric symptoms.

b) Perception of psychiatric symptom management can have an impact on perception of QoL in those diagnosed with a serious mental illness. In addition, domains that assess perception of satisfaction with overall QoL must be addressed in order to determine what domains, or factors, can negatively or positively impact perception of QoL in community dwelling individuals with serious mental illness.

c) Including peer-based support into community-based programs, like *Healthy Choices*, could influence regular engagement in making healthy lifestyle choices among the “peers” that participate in the community-based group. Peer support would also serve the function of enhancing mental illness recovery and building of social support networks for individuals recovering from a serious mental illness.

Implications for future research would address if participation in community-based healthy living programs would assist with psychiatric medication compliance and side effect management. Implementation of programs similar to *Healthy Choices* is also recommended for clients who are receiving mental health treatment in the inpatient setting.

Appendix A: Human Subjects Approval Letter



HUMAN SUBJECTS RESEARCH REVIEW
PO BOX 6000
BINGHAMTON, NY 13902-6000
HSRRC@BINGHAMTON.EDU

Date: June 7, 2017
To: Graciela Solano, DSON
From: Human Subjects Research Review Office
Subject: Revision Approval after Contingent Approval by Full Board
Protocol Number: 4072-17
Protocol title: *The Influence of Participation in the Healthy Choices Program for Community Dwelling Individuals with a Mental Health Diagnosis.*

The project identified above had previously received a contingent approval by the HSRRC at a Full Board convened meeting on May 11, 2017. The revised documents were received and reviewed by the designee reviewer(s) and your project has now received an approval pursuant to the Department of Health and Human Services (DHHS) regulations, 45 CFR 46.111.

A motion was made and seconded that the continuing review of this research can be reviewed through an expedited procedure, as research involves no greater than minimal risk.

If your project undergoes any other changes, these changes must be reported to our office prior to implementation.

Any unanticipated problems and/or complaints related to your use of human subjects, must be reported via a notification to the Human Subjects Research Review Office within five days. The Adverse Event form which can be found within the link provided below:
<http://binghamton.edu/research/compliance/humansubjects/coeus.html>

This is required so that the HSRRC can institute or update protective measures for human subjects as may be necessary. In addition, under the University's Assurance with the U.S. Department of Health and Human Services, Binghamton University must report certain events to the federal government. These reportable events include deaths, injuries, adverse reactions or unforeseen risks to human subjects. These reports must be made regardless of the source of funding or exempt status of your project.

Please notify this office when your project has concluded by completing and forwarding to our office the Protocol Closure form which can be found within the link below:
<http://binghamton.edu/research/compliance/humansubjects/coeus.html>

Upon notification, we will close the above referenced file. Any reactivation of the project will require a new application.

This documentation is being provided to you via email. A hard copy will not be mailed unless you request us to do so.

cc: file

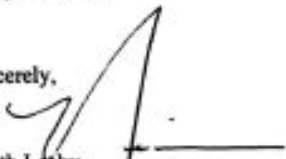
Appendix B: Mental Health Association of the Southern Tier Approval Letter

February 17, 2017

To whom it may concern,

Graciela M. Solano has permission to conduct research at the Mental Health Association of the Southern Tier, Inc. (MHAst). If you have any further questions or concerns regarding our organization's approval to have Ms. Solano conduct her research you may contact us at (607)771-8888.


Sincerely,


Keith Leahy
Executive Director
Mental Health Association of the Southern Tier


Kim Taro
Director - Sunrise Wellness Center
Mental Health Association of the Southern Tier

Appendix C: Approval Letter Use of WQLI Client Questionnaire

B Community College Mail - RE: W-QLI Website Form <https://mail.google.com/mail/u/0/?ui=2&ik=2d0d3e4dbc&view=pt>

 Solano, Graciela <solanogn@sunybroome.edu>

RE: W-QLI Website Form
16 messages

Becker, Marion <mbecker2@ust.edu>
To: "solanogn@sunybroome.edu" <solanogn@sunybroome.edu>
Thu, Feb 9, 2017 at 9:18 AM

Hi Here is the message. Dr Becker

From: solanogn@sunybroome.edu [inlits@solanogn@sunybroome.edu]
Sent: Thursday, February 02, 2017 2:20 PM
To: Becker, Marion <mbecker2@ust.edu>
Subject: W-QLI Website Form



You have received a request for information from an individual via the Wisconsin Quality of Life Index website. Please see below for details.

Name: Graciela Solano
Email: solanogn@sunybroome.edu

Message:
Hello, I just submitted my user agreement in order to obtain access to a copy of the WQLI. My first question is, will I be receiving a confirmation e-mail with a link to the questionnaire or what happens after I submit the user agreement? Also, I had difficulty entering my e-mail. I'm currently a PhD Nursing student at the Drexler School of Nursing in Binghamton NY and the form did not allow me to put my student e-mail (gsolano1@binghamton.edu). I had to opt to put my work e-mail (solanogn@sunybroome.edu) because that was the only e-mail that was allowed. Will that be ok? I look forward to hearing back from someone. Thank you. Graciela Solano

This email was automatically generated by the Wisconsin Quality of Life Index website.

2 attachments

-  **WQLI - Coding Client '08.pdf**
220K
-  **W-QLI Q and A.doc**
33K

Solano, Graciela <solanogn@sunybroome.edu>
To: "Becker, Marion" <mbecker2@ust.edu>
Thu, Feb 9, 2017 at 10:04 AM

Dr. Becker,
Thank you for sending the questionnaire. I was wondering if by chance if you could also send the caregiver questionnaire? I don't recall if I mentioned that I will include caregivers in my study on the User agreement. If you need me to resubmit another user agreement I would be more than happy to take the time to do that. I thank you for your response.
Sincerely,
Graciela M. Solano
(gsolano1@binghamton.edu)

Graciela M. Solano, MS, RN
Full Time Faculty Adjunct
SUNY Broome Nursing Department
solanogn@sunybroome.edu
Office: DH-317G
Phone: 778-5064

Solano, Graciela <solanogn@sunybroome.edu>
To: gsolano1@binghamton.edu
Thu, Feb 9, 2017 at 10:08 AM

(gsolano1@binghamton.edu)

Solano, Graciela <solanogn@sunybroome.edu>
To: gsolano1@binghamton.edu
Thu, Feb 9, 2017 at 10:08 AM

----- Forwarded message -----
From: **Becker, Marion** <mbecker2@ust.edu>

.ny College Mail - RE: W-QLI Website Form

<https://mail.google.com/mail/u/0/?ui=2&ik=2d0d3af4db&view=pt...>

Date: Thursday, February 9, 2017
 Subject: RE: W-QLI Website Form
 [Quoted text hidden]

2 attachments

 WQLI - Coding Client 10.pdf
 220K

 W-QLI G and A.doc
 30K


Becker, Marion <mbecker2@ust.edu>
 To: "Solano, Graciela" <gsolanog@sunybroome.edu>

Thu, Feb 9, 2017 at 12:21 PM

Hi, Here it is. Dr Becker

From: Solano, Graciela [mailto:gsolanog@sunybroome.edu]
 Sent: Thursday, February 09, 2017 10:05 AM
 To: Becker, Marion <mbecker2@ust.edu>
 Subject: Re: W-QLI Website Form

[Quoted text hidden]

 WQLI - Caregiver.doc
 57K

Solano, Graciela <gsolanog@sunybroome.edu>
 To: "Becker, Marion" <mbecker2@ust.edu>


Thu, Feb 9, 2017 at 1:23 PM

Thank you
 [Quoted text hidden]

Solano, Graciela <gsolanog@sunybroome.edu>
 To: gsolanog1@binghamton.edu

Thu, Feb 9, 2017 at 1:25 PM

----- Forwarded message -----
 From: Becker, Marion <mbecker2@ust.edu>
 Date: Thursday, February 9, 2017
 Subject: RE: W-QLI Website Form
 [Quoted text hidden]

 WQLI - Caregiver.doc
 57K

Solano, Graciela <gsolanog@sunybroome.edu>
 To: "Becker, Marion" <mbecker2@ust.edu>

Thu, Feb 9, 2017 at 2:04 PM

Dr. Becker,
 I just had moment to look at your original e-mail where you sent me the client coding book. Which I truly appreciate. I was wondering if you have the client questionaire as a word document? I didn't see it attached. I want to make sure I have the all the correct documents. I thank you for your assistance.

Sincerely,
 Graciela Solano
 [Quoted text hidden]


Becker, Marion <mbecker2@ust.edu>
 To: "Solano, Graciela" <gsolanog@sunybroome.edu>

Thu, Feb 9, 2017 at 2:04 PM

Here it is.

From: Solano, Graciela <gsolanog@sunybroome.edu>
 Sent: Thursday, February 9, 2017 2:04 PM
 To: Becker, Marion
 [Quoted text hidden]

[Quoted text hidden]

 WQLI - Client 100.doc
 100K

Appendix D: Approval Letter Use of WHODAS Questionnaire

Sign up for WHODAS updates

WHO Disability Assessment Schedule (WHODAS 2.0) user agreement

Fields marked with an asterisk (*) are mandatory

Basic information

Basic information for the agreement between the World Health Organization ("WHO") and you, the ("User"). Upon completing this form, WHO will hereby grant you a nonexclusive, non-commercial, royalty free license to use the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0). If you desire to use WHODAS 2.0 for some other purpose, please contact the responsible officer at whodas@who.int.

1) Title (Basic) Dr. Mr. Ms. Other

2) Name * (First Name / Given Name)
Graciela

3) Family Name * (Last Name)
Solano

4) Email Address * graciela@binghamton.edu
The email format is "xxxx@yyyy.zzz"

5) Organization / Affiliation
Binghamton University Decker School of Nursing

6) Address of Organization / Alliance
4400 Vestal Parkway East
Vestal, NY 13850

7) Country *
United Kingdom of Great Britain and Northern Ireland
United States of America
Uruguay
Uruguay

To view multiple selections, press the "Tab" key and click on the item to choose

Sign up for WHODAS updates

WHO Disability Assessment Schedule (WHODAS 2.0) user agreement

Fields marked with an asterisk (*) are mandatory

How will you use WHO-DAS 2.0?

A section detailing how and where the user intends to use WHO-DAS 2.0

1) How will you use WHO-DAS 2.0? in a research study
 in clinical practice
 in policy development
 I am just looking but do not have any specific use planned
 Other

2) If other, please specify: Other use:

WHO-DAS 2.0 in Research

If you will be using WHO-DAS 2.0 in your research, please provide additional information on how it will be used

1) Study Title
Healthy Choices Program for Community Dwelling Individuals with a Mental Health Diagnosis

2) Name of Principal Investigator
Graciela M. Solano

3) Sample Characteristics
Sample will include community dwelling individuals who receive mental health treatment in the community setting and participate in the "Healthy Choices" program.

4) Sample size
approx. 50

5) Intervention or Treatment
N/A

Sign up for WHO updates

6) Total Number of Assessments: _____ # of Assessments approx. 40

7) Assessment time points (e.g. pre and post, every 6 weeks, etc.): _____ Assessment Times: **single point - one time assessment**

8) Other information (if applicable): _____ Research - Other info: _____

WHO-DAS 2.0 in Clinical Practice
If you will be using WHO-DAS 2.0 in clinical practice, please provide additional information on how it will be used.

1) Type of Practice or Practitioner:

- Hospital
- Out-Patient Clinic
- In-Patient Facility (non-hospital)
- Out-Patient Rehabilitation Facility
- Medical Doctor
- Doctor of Chiropractic
- Psychotherapist / Physical Therapist
- Nurse / Nurse Practitioner
- Psychiatrist / Psychologist
- Social Worker / Counsellor
- Traditional Medicine Practitioner
- Student
- Other

2) Other: Please specify: _____ Other Practice / Practitioner: _____

WHO-DAS 2.0 in Policy Development
If you will be using WHO-DAS 2.0 in development of policy, please provide additional information on how it will be used.

1) Level of Policy:

- International Regulation or Recommendation
- National Law
- National Regulation or Recommendation
- Local Law
- Local Regulation or Recommendation
- Other

2) Other: Please specify: _____ Other Policy Level: _____

Conditions and Agreements
This User Agreement is based upon the following conditions:

- You ("User") shall not modify, abridge, condense, translate, adapt, recast or transform the WHO-DAS 2.0 in any manner or form, including but not limited to any minor or significant change in wording or organization, in administration procedures, of the WHO-DAS 2.0. If User thinks that changes are necessary for its work, or if translation is necessary, User must obtain written approval from WHO in advance of making such changes.
- User shall not distribute copies of the WHO-DAS 2.0 to third parties by sale, rental, lease, lending, or any other means.
- Publications describing results obtained by User will be published in User's name and shall include an acknowledgement of WHO. User agrees to send to WHO a copy of the publication.
- User shall be solely responsible for the manner in which work on the project is carried out and accordingly shall assume full liability for any damage arising therefrom. No liability shall attach to WHO, its advisors, agents or employees.

Please confirm your agreement with the foregoing by clicking the "I Accept" option, whereupon this agreement shall become a binding agreement between you, as the User, and WHO.

Sign up for WHO updates


Conditions and Agreements

The User Agreement is based upon the following conditions:

1. You ("User") shall not modify, abridge, condense, translate, adapt, recast or transform the WHODAS 2.0 in any manner or form, including but not limited to any major or significant change in wording or organization, or administration procedures, of the WHODAS 2.0. If User thinks that changes are necessary for its work, or if translation is necessary, User must obtain written approval from WHO in advance of making such changes.
2. User shall not distribute copies of the WHODAS 2.0 to third parties by sale, rental, lease, lending, or any other means.
3. Publications describing results obtained by User will be published in User's name and shall include an acknowledgement of WHO. User agrees to send to WHO a copy of the publication.
4. User shall be solely responsible for the manner in which work on the project is carried out and accordingly shall assume full liability for any damage arising therefrom. No liability shall attach to WHO, its advisors, agents or employees.

Please confirm your agreement with the foregoing by clicking the "I Accept" option, whereupon this agreement shall become a binding agreement between you, as the User, and WHO.

I Agree I disagree, and will therefore not use the WHODAS 2.0 instrument



Appendix E: Subject Recruitment Letters

In Person Recruitment - Clients

Hello,

We are doing a research study; a research study is a special way to find out about something. You are invited because you expressed an interest in participating in a study that focuses on well-being. We are trying to find out how your participation in "Healthy Choices" or, if you do not participate in "Healthy Choices", mental wellness programs help you with your overall well-being.

If you want to be in this study, we will ask you to complete questionnaire(s) and a brief survey. This study will last approximately 30 minutes. If you have a family member or friend that is your caregiver we invite them to participate. The study will take place on Wednesday, August 23rd at Mental Health Association of the Southern Tier (MHAST).

The researcher will know that you are in the study. If a report is written or anyone else is given information about you, they will not know your name. A number or code will be used instead of your name. If you choose to participate in the study, upon completion you will be entered for a chance to win a \$25 gift card to Walmart. You do not have to be in this study. If you decide to be in the study, but change your mind, you can stop being in the study.

If you choose to participate in the study we would like to know:

Do you live with a caregiver or someone who takes care of you? Yes _____ No _____

Would the person who takes care of you like to participate in the study? Yes _____ No _____

Do you participate in the Healthy Choices Program along with other Mental Wellness programs offered by MHAST (i.e. Compeer, Expressive Arts, Men's/Women's group, etc.)?

Yes _____ No _____

Do you participate in only Mental Wellness programs offered by MHAST (i.e. Compeer, Expressive Arts, Men's/Women's group, etc.)? Yes _____ No _____

We thank you for your time

Telephone Recruitment - Clients

Hello,

We are doing a research study; a research study is a special way to find out about something. You are invited because you expressed an interest in participating in a study that focuses on well-being. We are trying to find out how your participation in "Healthy Choices" or, if you do not participate in "Healthy Choices", mental wellness programs help you with your overall well-being.

If you want to be in this study, we will ask you to complete questionnaire(s) and a brief survey. This study will last approximately 30 minutes. If you have a family member or friend that is your caregiver we invite them to participate. The study will take place on Wednesday, August 23rd at the Mental Health Association of the Southern Tier (MHAST).

The researcher will know that you are in the study. If a report is written or anyone else is given information about you, they will not know your name. A number or code will be used instead of your name. If you choose to participate in the study, upon completion you will be entered for a chance to win a \$25 gift card to Walmart. You do not have to be in this study. If you decide to be in the study, but change your mind, you can stop being in the study.

If you choose to participate in the study we would like to know:

Do you live with a caregiver or someone who takes care of you? Yes _____ No _____

Would the person who takes care of you like to participate in the study? Yes _____ No _____

• If you answered yes to the above question may we contact your caregiver? Yes _____ No _____

• If you answered yes to the above question could you provide your caregiver's e-mail address?

Caregiver's e-mail: _____

Do you participate in the Healthy Choices Program along with other Mental Wellness programs offered by MHAST (i.e. Compeer, Expressive Arts, Men's/Women's group, etc.)?

Yes _____ No _____

Do you participate in only Mental Wellness programs offered by MHAST (i.e. Compeer, Expressive Arts, Men's/Women's group, etc.)? Yes _____ No _____

We thank you for your time

Appendix F: Informed Consent

IRB Approval Period:
8/23/2017 - 6/7/2018

Informed Consent – Subject (Client)

Project Title: The Influence of Participation in the Healthy Choices Program
Investigator: Graciela M. Solano

We are doing a research study; a research study is a special way to find out about something. You are invited because you expressed an interest in participating in a study that focuses on well-being. We are trying to find out how your participation in "Healthy Choices" or, if you do not participate in "Healthy Choices", mental wellness programs help you with your overall well-being. You must be 18 years old.

If you want to be in this study, we will ask you to complete questionnaire(s) and a brief survey. This study will last approximately 30 minutes.

Not everyone in the study will have something helpful happen to them, but we hope to learn something that will help other people someday.

Contact information and signed informed consent will be kept separately and confidentially in a secure, private place and will not be linked to your survey responses. If a report is written or anyone else is given information about you, they will not know your name. Your name will not be linked to your survey and instead a code will be used. The document that links the code to your name will be kept separately in a secure location. Only the investigator will have access to this data. This research will remain confidential unless we are required by New York State Law to report harm to yourself or your children.

Before you sign the form, please ask questions on any aspect of the study that is at all unclear to you. If you have any additional questions you may contact the investigator, Graciela Solano at (607) 778-5064, and they will be happy to answer them. If at any time you have questions concerning your rights as a research subject you may call Binghamton University's Human Subject's Research Review Committee at (607) 777-3818. You will be given a copy of this form to keep.

You do not have to be in this study. Potential risks include, feeling uncomfortable or distressed while completing the survey as it may contain sensitive or personal questions. If you feel uncomfortable or distressed, you can skip a particular question and continue. Upon completion you will be entered for a chance to win a \$25 gift card to Walmart. Participation is completely voluntary and that your decision to participate or not will not affect your relationship with the researchers, the staff at MHASt, Binghamton University, or the services you receive from MHASt. If you decide to be in the study, but change your mind, you can stop being in the study.

If you want to be in this study, please sign your name.

Your name (printing is OK)

Date

Telephone Informed Consent Script – Subject (Client)

Project Title: The Influence of Participation in the Healthy Choices Program
Investigator: Graciela M. Solano

We are doing a research study; a research study is a special way to find out about something. You are invited because you expressed an interest in participating in a study that focuses on well-being. We are trying to find out how your participation in "Healthy Choices" or, if you do not participate in "Healthy Choices", mental wellness programs help you with your overall wellbeing. You must be 18 years old.

If you want to be in this study, we will ask you to complete questionnaire(s) and a brief survey. This study will last approximately 30 minutes.

Not everyone in the study will have something helpful happen to them, but we hope to learn something that will help other people someday.

Contact information will be kept separately and confidentially in a secure, private place and will not be linked to your survey responses. If a report is written or anyone else is given information about you, they will not know your name. Your name will not be linked to your survey and instead a code will be used. The document that links the code to your name will be kept separately in a secure location. Only the investigator will have access to this data. This research will remain confidential unless we are required by New York State Law to report harm to yourself or your children.

Before you participate in the survey, please ask questions on any aspect of the study that is at all unclear to you. If you have any additional questions you may contact the investigator, Graciela Solano at (607) 778-5064, and they will be happy to answer them. If at any time you have questions concerning your rights as a research subject you may call Binghamton University's Human Subject's Research Review Committee at (607) 777-3818.

You do not have to be in this study. Potential risks include, feeling uncomfortable or distressed while completing the survey as it may contain sensitive or personal questions. If you feel uncomfortable or distressed, you can skip a particular question and continue. Upon completion you will be entered for a chance to win a \$25 gift card to Walmart. Participation is completely voluntary and that your decision to participate or not will not affect your relationship with the researchers, the staff at MHASt, Binghamton University, or the services you receive from MHASt. If you decide to be in the study, but change your mind, you can stop being in the study.

Do you agree to participate in the study? Can I proceed with the interview?

Appendix G: WQLI Client Questionnaire

WISCONSIN QUALITY OF LIFE CLIENT QUESTIONNAIRE

Wisconsin Quality of Life Associates
University of Wisconsin - Madison

Your Name: _____ ID #: _____

Date of Completion: ___/___/___ Location: _____

Directions: We are interested in your views and feelings. The questions in this booklet ask for your opinions about the quality of your life. When you answer each question please indicate the response which most closely reflects your opinion.

You are the person who knows best how you feel about these questions. If you would like someone to help you in filling out this questionnaire, and a friend or family member is not available, please contact a staff member to assist you.

Note: If this form was filled out by someone other than you, please...

Indicate who helped: _____

Relationship to you: _____

BACKGROUND INFORMATION

What is your date of birth? ____/____/____

You are? Male Female

What is your highest school grade completed: _____

What is your current relationship/marital status?

- | | |
|---|---|
| <input type="checkbox"/> Single/Never married | <input type="checkbox"/> Committed relationship |
| <input type="checkbox"/> Married | <input type="checkbox"/> Separated |
| <input type="checkbox"/> Divorced | <input type="checkbox"/> Spouse deceased |

How many times have you been married? _____

What is the source of your income? (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Paid employment | <input type="checkbox"/> Unemployment compensation |
| <input type="checkbox"/> Social Security Disability Income (SSDI) or Supplemental Security Income (SSI) | <input type="checkbox"/> Retirement, investment or savings |
| <input type="checkbox"/> Veterans disability or pension benefits | <input type="checkbox"/> Alimony or child support |
| <input type="checkbox"/> General assistance | <input type="checkbox"/> Money shared by your spouse/partner |
| <input type="checkbox"/> AFDC | <input type="checkbox"/> Money from your family |
| | <input type="checkbox"/> Other source: _____ |

What is your racial/ethnic background? (Check all that apply)

- | | |
|--|---|
| <input type="checkbox"/> American Indian/Native American | <input type="checkbox"/> Hispanic/Latino |
| <input type="checkbox"/> Asian | <input type="checkbox"/> White |
| <input type="checkbox"/> African American | <input type="checkbox"/> Other, please specify: _____ |

During the past four weeks, you lived: (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> alone | <input type="checkbox"/> with parents |
| <input type="checkbox"/> with roommate/friend | <input type="checkbox"/> with significant other/spouse |
| <input type="checkbox"/> with children | <input type="checkbox"/> with other, please specify: _____ |

Who would you like to live with? (Check all that apply)

- | | |
|--|--|
| <input type="checkbox"/> alone | <input type="checkbox"/> with parents |
| <input type="checkbox"/> friend/roommate | <input type="checkbox"/> with significant other/spouse |
| <input type="checkbox"/> with children | <input type="checkbox"/> with other, please specify: _____ |

During the past four weeks, you lived primarily: (Check one)

- | | |
|--|--|
| <input type="checkbox"/> in an apartment/home | <input type="checkbox"/> at school/college |
| <input type="checkbox"/> in a boarding home | <input type="checkbox"/> in an institution (i.e. hospital or nursing home) |
| <input type="checkbox"/> in an group home or halfway house | <input type="checkbox"/> in jail/prison |
| <input type="checkbox"/> homeless | <input type="checkbox"/> other, please specify: _____ |

Where would you like to live? (Choose one)

- | | |
|--|--|
| <input type="checkbox"/> in an apartment/home | <input type="checkbox"/> at school/college |
| <input type="checkbox"/> in a boarding home | <input type="checkbox"/> in an institution (i.e. hospital or nursing home) |
| <input type="checkbox"/> in an group home or halfway house | <input type="checkbox"/> in jail/prison |
| <input type="checkbox"/> homeless | <input type="checkbox"/> other, please specify: _____ |

SATISFACTION LEVEL							
	Very dissatisfied	Moderately dissatisfied	A little dissatisfied	Neither satisfied or dissatisfied	A little satisfied	Moderately satisfied	Very satisfied
How satisfied or dissatisfied are you with the way you spend your time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you when you are alone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with your housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with your neighborhood as a place to live in?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with the food you eat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with the clothing you wear?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with the mental health services you use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with your access to transportation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with your sex life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with your personal safety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

We have asked how satisfied you are with different parts of your life. Now we would like to know how important each of these aspects of your life are.

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
How important to you is the way you spend your time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important is it to feel comfortable when alone?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important is your housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important is your neighborhood as a place to live in?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important to you is the food you eat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important to you is the clothing you wear?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important to you are the mental health services you use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important to you is your access to transportation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important to you is your sex life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important to you is your personal safety?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ACTIVITIES AND OCCUPATIONS

During the **past four weeks**, you have: (Check one)

- been working/studying or doing housework in your usual manner
 been working/studying or doing housework but less often
 stopped working/studying or doing housework

About how many hours a week do you work or go to school? Hours per week = _____

What is your main activity? (Check one).

- Paid employment
 Volunteer or unpaid work
 School
 Treatment/rehabilitation program
 Craft/leisure time/hobbies
 No structured activity
 Other, please specify: _____

How satisfied or dissatisfied are you with the main activity that you do? (Check one)

- Very dissatisfied Moderately dissatisfied A Little dissatisfied Neither satisfied nor dissatisfied A little satisfied Moderately satisfied Very satisfied

Do you feel that you are engaged in activities: (Choose one)

- Less than you would like More than you would like As much as you want

What would you like to have as your main activity?

- Paid employment
 Volunteer or unpaid work
 School
 Treatment/rehabilitation program
 Craft/leisure time/hobbies
 No structured activity
 Other, please specify: _____

PSYCHOLOGICAL WELL-BEING

Now we would like to know how you feel about things in your life. For each of the following questions, check the boxes that best describe how you have felt in the **past four weeks**.

YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	Pleased about having accomplished something?
<input type="checkbox"/>	<input type="checkbox"/>	Very lonely or remote from other people?
<input type="checkbox"/>	<input type="checkbox"/>	Bored?
<input type="checkbox"/>	<input type="checkbox"/>	That things went your way?
<input type="checkbox"/>	<input type="checkbox"/>	So restless that you couldn't sit long in a chair?
<input type="checkbox"/>	<input type="checkbox"/>	Proud because someone complimented you on something you had done?
<input type="checkbox"/>	<input type="checkbox"/>	Upset because someone criticized you?
<input type="checkbox"/>	<input type="checkbox"/>	Particularly excited or interested in something?
<input type="checkbox"/>	<input type="checkbox"/>	Depressed or very unhappy?
<input type="checkbox"/>	<input type="checkbox"/>	On top of the world?

In the **past four weeks**, would you say that your mental health has been:

- Poor Fair Good Very good Excellent

SYMPTOMS/OUTLOOK

During the **past four weeks**, you have: (Check one)

- generally felt calm and positive in outlook
 been having some periods of anxiety or depression
 generally been confused, frightened, anxious or depressed

There are many aspects of emotional distress including feelings of depression, anxiety, hearing voices, etc. In the **past four weeks**, how much distress have these symptoms caused you?: (Check one)

- Not at all A little Some A moderate amount A lot

In the past four weeks :	Never	Occasionally	Frequently	Most of the time	Constantly
How much has feelings of depression, anxiety, etc. interfered with your daily life?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you felt like killing yourself?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have you felt like harming others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PHYSICAL HEALTH

In the **past four weeks**, you would best describe your physical health as:

- Poor Fair Good Very good Excellent

How do you feel about your physical health? (Check one)

- Very dissatisfied Moderately dissatisfied A little dissatisfied Neither satisfied nor dissatisfied A Little satisfied Moderately satisfied Very satisfied

How important to you is your physical health? (Check one)

- Not at all important Slightly important Moderately important Very important Extremely important

Are you currently taking psychiatric medications? Yes No (If no, go to next page)

If you are currently taking psychiatric medications, do you take them as prescribed? (Check one)

- Never Sometimes Always Very infrequently Quite often

If you are currently taking psychiatric medications, do you have side effects from them?

- None Slight Mild Moderate Severe

If you take medications for mental health problems, do you feel the medication helps control your symptoms?

- Not at all Some A fair amount Quite a bit Eliminates all symptoms

How do you feel about taking your psychiatric medications?

- Very dissatisfied Moderately dissatisfied A little dissatisfied Neither satisfied nor dissatisfied A little satisfied Moderately satisfied Very satisfied

ALCOHOL & OTHER DRUGS

Over the **past four weeks**, have you drunk any alcohol? Yes No

If yes, on how many days have you had any alcohol to drink over the **past four weeks**? _____ (number of days)

What do you think about your alcohol use? (Check one)

- It is a big problem It is a minor problem Not a problem It helps a little It helps a lot

Over the **past four weeks**, have you used any street drugs (cocaine, marijuana, heroin, speed, LSD, etc.)?

- Yes No

If yes, on how many days have you had any alcohol to drink over the **past four weeks**? _____ (number of days)

What do you think about your drug use? (Check one)

- It is a big problem It is a minor problem Not a problem It helps a little It helps a lot

SOCIAL RELATIONS / SUPPORT

	Very dissatisfied	Moderately dissatisfied	A little dissatisfied	Neither satisfied or dissatisfied	A little satisfied	Moderately satisfied	Very satisfied
How satisfied or dissatisfied are you with the number of friends you have?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with how you get along with your friends? <input type="checkbox"/> No friends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with your relationship with your family? <input type="checkbox"/> No family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you live with others, how satisfied or dissatisfied are you with the people with whom you live? <input type="checkbox"/> Live alone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How satisfied or dissatisfied are you with how you get along with other people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How many people do you count as your friends?	<input type="checkbox"/> none	<input type="checkbox"/> 1-2	<input type="checkbox"/> 3-5	<input type="checkbox"/> over 5			

IMPORTANCE LEVEL					
	Not at all important	Slightly important	Moderately important	Very important	Extremely important
How important is it to have an adequate number of friends?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important is it to get along with your friends?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important are family relationships?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you live with others, how important are the people with whom you live?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How important is it to get along with others?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

During the **past four weeks**, you have (check one):

- been having good relationships with others and receiving support from family and friends
 been receiving only moderate support from family and friends
 had infrequent support from family and friends or only when absolutely necessary

MONEY

Are you paid for working or attending school? Yes No

How do you feel about the amount of money you have?

- Very dissatisfied Moderately dissatisfied A little dissatisfied Neither satisfied nor dissatisfied A Little satisfied Moderately satisfied Very satisfied

How satisfied are you about the amount of control you have over your money?

- Very dissatisfied Moderately dissatisfied A little dissatisfied Neither satisfied nor dissatisfied A Little satisfied Moderately satisfied Very satisfied

How important to you is money?

- Not at all important Slightly important Moderately important Very important Extremely important

How important is it to you to have control over your money?

- Not at all important Slightly important Moderately important Very important Extremely important

How often does lack of money keep you from doing what you want to do?

- Never Sometimes Frequently Almost always

OTHER

Below are activities that you may have participated in recently. Please check Yes or No to indicate whether you have done the activity in the **past four weeks**.

	YES	NO		YES	NO
Gone for a walk	<input type="checkbox"/>	<input type="checkbox"/>	Gone to a social group	<input type="checkbox"/>	<input type="checkbox"/>
Gone to a movie or play	<input type="checkbox"/>	<input type="checkbox"/>	Read a magazine or newspaper	<input type="checkbox"/>	<input type="checkbox"/>
Watched TV	<input type="checkbox"/>	<input type="checkbox"/>	Gone to church, synagogue, mosque	<input type="checkbox"/>	<input type="checkbox"/>
Played cards	<input type="checkbox"/>	<input type="checkbox"/>	Listened to a radio	<input type="checkbox"/>	<input type="checkbox"/>
Played a sport	<input type="checkbox"/>	<input type="checkbox"/>	Gone to a library	<input type="checkbox"/>	<input type="checkbox"/>

Please check the box below to indicate how you feel about your quality of life during the **past four weeks**. *Lowest quality* means things are as bad as they could be. *Highest quality* means things are the best they could be.

Lowest quality 1 2 3 4 5 6 7 8 9 10 Highest quality

If your quality of life is less than you hope for, how hopeful are you that you will eventually achieve your desired quality of life? (Check one)

Not at all Somewhat Moderately Very

How much control do you feel you have over the important areas of your life? (Check one)

None Some A moderate amount A great amount

How important are each of the following factors in determining your quality of life?	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Work, school or other occupational activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your feelings about yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your physical health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Friends, family, people you spend time with	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Having enough money	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to take care of yourself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Your mental health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, please specify: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is there anything else you would like us to know?

This is the end of the questionnaire. Thank you for giving your opinion and sharing your responses with us. If you have any questions about this questionnaire, please call or write Marion Becker, Ph.D., University of South Florida, Department of Community Mental Health, 13301 Bruce B. Downs Blvd., MHC 1423, Tampa, Florida 33612-3899 Telephone: (813) 974-7188 Fax: (813) 974-6469 E-Mail: becker@fmhi.usf.edu

Appendix H: WHODAS Questionnaire



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

12-item version, self-administered

This questionnaire asks about difficulties due to health conditions. Health conditions include diseases or illnesses, other health problems that may be short or long lasting, injuries, mental or emotional problems, and problems with alcohol or drugs.

Think back over the past 30 days and answer these questions, thinking about how much difficulty you had doing the following activities. For each question, please circle only one response.

In the past 30 days, how much difficulty did you have in:						
S1	<u>Standing for long periods</u> such as <u>30 minutes</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do
S2	Taking care of your <u>household responsibilities</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do
S3	<u>Learning a new task</u> , for example, learning how to get to a new place?	None	Mild	Moderate	Severe	Extreme or cannot do
S4	How much of a problem did you have <u>joining in community activities</u> (for example, festivities, religious or other activities) in the same way as anyone else can?	None	Mild	Moderate	Severe	Extreme or cannot do
S5	How much have <u>you</u> been <u>emotionally affected</u> by your health problems?	None	Mild	Moderate	Severe	Extreme or cannot do

Please continue to next page...



WHODAS 2.0

WORLD HEALTH ORGANIZATION
DISABILITY ASSESSMENT SCHEDULE 2.0

12

Self

In the past 30 days, how much difficulty did you have in:						
S6	<u>Concentrating</u> on doing something for <u>ten minutes</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do
S7	<u>Walking a long distance</u> such as a <u>kilometre</u> [or equivalent]?	None	Mild	Moderate	Severe	Extreme or cannot do
S8	<u>Washing your whole body</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do
S9	Getting <u>dressed</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do
S10	<u>Dealing with people you do not know</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do
S11	<u>Maintaining a friendship</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do
S12	Your day-to-day <u>work</u> ?	None	Mild	Moderate	Severe	Extreme or cannot do

H1	Overall, in the past 30 days, <u>how many days</u> were these difficulties present?	<i>Record number of days</i> ____
H2	In the past 30 days, for how many days were you <u>totally unable</u> to carry out your usual activities or work because of any health condition?	<i>Record number of days</i> ____
H3	In the past 30 days, not counting the days that you were totally unable, for how many days did you <u>cut back</u> or <u>reduce</u> your usual activities or work because of any health condition?	<i>Record number of days</i> ____

This completes the questionnaire. Thank you.

**Appendix I: Survey for the *Healthy Choices* (plus Mental Wellness program)
Participant**

Please write your response to the questions below:

1. Has participation in “Healthy Choices” improved your physical health? If so, how?

2. How has peer-support helped you in being involved with “Healthy Choices”? Has it improved your relationships with family and friends? Please describe below.

3. Since becoming involved with “Healthy Choices” have you engaged in new hobbies or gotten a job? Please describe below.

4. Since becoming involved in “Healthy Choices” has symptoms of your mental health diagnosis improved or become more manageable? If so, please describe below.

Appendix J: Survey for the Mental Wellness Program Participant

Please write your response to the questions below:

1. Has participation in mental wellness programs (i.e. compeer, expressive arts, etc.) improved your physical health? If so, how?

2. How has peer-support helped you in being involved with mental wellness programs (i.e. compeer, expressive arts, etc.)? Has it improved your relationships with family and friends? Please describe below.

3. Since becoming involved with mental wellness programs (i.e. compeer, etc.) have you engaged in new hobbies or gotten a job? Please describe below.

4. Since becoming involved in mental wellness programs (i.e. compeer, expressive arts, etc.) has symptoms of your mental health diagnosis improved or become more manageable? If so, please describe below.

Appendix K: Curriculum for Healthy Choices Program

Description: Workshops under the *Healthy Choices* program occur once a week and are open to peers that use services provided by the Mental Health Association of the Southern Tier. Topics under the *Healthy Choices* program rotate weekly and address an aspect of assisting with mental and physical health. Activities that occur are also based on season. Examples of topics under the *Healthy Choices* program are provided below:

- ***Healthy Choices workshop*** – Join us as we learn a fun and healthier way of eating and living with the Cornell Cooperative extension.
- **Food as Medicine** – Exploring the value of nutritional food choices to create optimal Mental Health
- ***Healthy Choices: Vines Garden Project*** – Working in the Vines garden plot on Pine Street.
- ***Healthy Choices: Summer Bounty*** – Making fruit and vegetable smoothies.
- ***Healthy Choice workshop*** – The benefits of Qi Gong and Tai Chi
- **Walk and Talk** – Join us as we work towards physical wellness by walking with open and mindfulness discussions.
- **Nutrition with Jennifer** – A two part series on “Nutrition Practices for your Mental Health- Based Upon Research.” By Registered Dietitian Jennifer Vallone. One on one sessions are also available.
- **Tag Your Fit!** – A program to jumpstart your personal wellness goals for weight loss, strong heart and vibrant health.

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