Learning And Utilizing Wrap's Framework: The Process Of Recovery For Serious Mental Illness

Ryan Petros

University of Pennsylvania, petrosr@sp2.upenn.edu

Follow this and additional works at: https://repository.upenn.edu/edissertations

Part of the Psychiatric and Mental Health Commons, and the Social Work Commons

Recommended Citation


https://repository.upenn.edu/edissertations/2526

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/edissertations/2526
For more information, please contact repository@pobox.upenn.edu.
Learning And Utilizing Wrap's Framework: The Process Of Recovery For Serious Mental Illness

Abstract
Objective: This study was conducted to investigate how adults with serious mental illness learn and utilize an illness self-management framework through a program called Wellness Recovery Action Plan (WRAP) to pursue recovery. Methods: The study employed an exploratory sequential mixed methods design. The qualitative phase used an interpretive descriptive approach with thematic analysis. Data were collected from three focus groups, 10 in-depth interviews, and member checks to investigate how participants learn and utilize WRAP’s framework and to identify major facilitators and barriers. The quantitative phase used an anonymous online survey (N=82) to test qualitative findings about the degree to which problem-solving confidence and self-reflection and insight predict the degree of perceived recovery for WRAP users with serious mental illness. Results: Participants used WRAP to increase self-reflection and insight about their recovery needs and goals; to develop effective strategies to restore, maintain, and advance wellness; and to rebuild a positive outlook of themselves and their interactions with others, augmented by increased hope and empowerment about their abilities to successfully pursue recovery. Problem-solving and social support were identified as major facilitators and barriers to learning and using WRAP. Problem-solving confidence (p<.001) and social support (p<.001) were the main predictors of the degree of perceived recovery, and they may work in tandem to help people learn and use WRAP's illness self management framework. Conclusions: WRAP appears consistent with a recovery-orientation, and WRAP users may benefit from additional group support that incorporates formal problem-solving strategies and ongoing, reciprocal peer and social support to assist in the adaptation and implementation of recovery strategies prospectively as problems, life circumstances, and recovery-oriented goals change.

Degree Type
Dissertation

Degree Name
Doctor of Philosophy (PhD)

Graduate Group
Social Welfare

First Advisor
Phyllis Solomon

Keywords
Mental Health, Mental Illness, Mixed Methods, Recovery, Self-Management, Wellness

Subject Categories
Psychiatric and Mental Health | Social Work

This dissertation is available at ScholarlyCommons: https://repository.upenn.edu/edissertations/2526
LEARNING AND UTILIZING WRAP’S FRAMEWORK: THE PROCESS OF RECOVERY FOR SERIOUS MENTAL ILLNESS

Ryan Petros

A DISSERTATION

in

Social Welfare

Presented to the Faculties of the University of Pennsylvania

in

Partial Fulfillment of the Requirements for the

Degree of Doctor of Philosophy

2017

Supervisor of Dissertation

_____________________________________________________

Phyllis Solomon, Professor, School of Social Policy and Practice

Graduate Group Chairperson

_____________________________________________________

John L. Jackson, Jr., Dean, School of Social Policy and Practice

Dissertation Committee

Zvi Gellis, Professor, School of Social Policy and Practice

Anne Teitelman, Professor, School of Nursing
ACKNOWLEDGMENT

This dissertation is only possible because of the countless people who supported, encouraged, and challenged me. I am deeply grateful for my friends, family, and doctoral cohort members who uniquely contributed to my growth and development. I would like to express my gratitude to Dr. Anne Teitelman who taught me about mixed methods research for developing and testing theory-based interventions. I am grateful to Dr. Zvi Gellis for his guidance in problem-solving and theoretical frameworks. Thank you to Dr. Irene Wong for guiding me through the first years of my doctoral programming and for teaching me about survey construction and evaluation. Dr. Aileen Rothbard generously included me on research projects and gently socialized me into the process of research collaborations. I am incredibly grateful for Dr. Sarah Kagan and all the members of the Advanced Qualitative Collective for helping to deepen my understanding of qualitative research and for the hours of support and collaboration in critically examining my work. I am especially grateful to Mary Kay Tuohy for her help in recruitment for this research and to all the agencies who partnered with me, including Elwyn, Mental Health Association of Southeastern Pennsylvania, Wedge, and Germantown Recovery Center. This dissertation was supported tremendously by NIMH and the Ruth L. Kirschstein National Research Service Award that contributed to funding my doctoral education. Finally, I am inordinately grateful to my mentor, teacher, and friend, Dr. Phyllis Solomon, who was generous with her time, encouragement, and thoughtful critiques of my work. My understanding of research was shaped by her consistent training and support, and I am honored to have worked with her over the past five years.
ABSTRACT

LEARNING AND UTILIZING WRAP’S FRAMEWORK: THE PROCESS OF RECOVERY FOR SERIOUS MENTAL ILLNESS

Ryan Petros
Phyllis Solomon

Objective: This study was conducted to investigate how adults with serious mental illness learn and utilize an illness self-management framework through a program called Wellness Recovery Action Plan (WRAP) to pursue recovery. Methods: The study employed an exploratory sequential mixed methods design. The qualitative phase used an interpretive descriptive approach with thematic analysis. Data were collected from three focus groups, 10 in-depth interviews, and member checks to investigate how participants learn and utilize WRAP’s framework and to identify major facilitators and barriers. The quantitative phase used an anonymous online survey (N=82) to test qualitative findings about the degree to which problem-solving confidence and self-reflection and insight predict the degree of perceived recovery for WRAP users with serious mental illness. Results: Participants used WRAP to increase self-reflection and insight about their recovery needs and goals; to develop effective strategies to restore, maintain, and advance wellness; and to rebuild a positive outlook of themselves and their interactions with others, augmented by increased hope and empowerment about their abilities to successfully pursue recovery. Problem-solving and social support were identified as major facilitators and barriers to learning and using WRAP. Problem-solving confidence (p<.001) and social support (p<.001) were the main predictors of the degree of perceived recovery, and they may work in tandem to help people learn and use WRAP’s illness self
management framework. Conclusions: WRAP appears consistent with a recovery-orientation, and WRAP users may benefit from additional group support that incorporates formal problem-solving strategies and ongoing, reciprocal peer and social support to assist in the adaptation and implementation of recovery strategies prospectively as problems, life circumstances, and recovery-oriented goals change.
# TABLE OF CONTENTS

Acknowledgement.................................................................................................................. ii

Abstract.................................................................................................................................. iii

List of tables................................................................................................................................. vi

Chapter 1: Background and Significance..................................................................................... 1

Chapter 2: Qualitative Methods................................................................................................... 21

Chapter 3: Qualitative Findings................................................................................................... 33

Chapter 4: Quantitative Methods.................................................................................................. 51

Chapter 5: Quantitative Results................................................................................................... 63

Chapter 6: Integrated Discussion and Conclusion................................................................. 71

Appendices................................................................................................................................ 87

References................................................................................................................................. 93
LIST OF TABLES

Table 1. Demographics for Interview Participants........................................29
Table 2. Correlation Matrix of Scales .............................................................61
Table 3. Demographics for Survey Respondents ............................................64
Table 4. Models 1 and 2: Linear Regressions of Recovery on Self-Reflection and
          Insight........................................................................................................66
Table 5. Models 3 and 4: Linear Regression of Recovery on Problem-Solving
          Confidence ..................................................................................................67
Table 6. Models 5 and 6: Linear Regression of Recovery on Problem-Solving and Self-
          Reflection and Insight: Moderation Model with an Interaction Term..........68
Table 7. Models 4 and 7: Linear Regression of Recovery on Problem-Solving, Social
          Support, and Symptoms Using Standardized Scores..................................69
CHAPTER 1: Background and Significance

Specific Aims of the Study

The U.S. mental health system is transforming toward a recovery orientation, but there is insufficient research available to direct the change within the service delivery system. Historically, mental health professionals dominated the care and treatment of adults with serious mental illness. Their expertise was considered sacrosanct, and services often focused on increasing compliance to treatment orders. Yet privileging providers’ authority over consumer choice is antithetical to a recovery orientation that is now the law of the land (New Freedom Commission, 2003). In this new era of services, providers are charged with helping mental health consumers take control of developing personalized recovery strategies, but there is minimal research to guide practitioners or consumers how to do so.

One promising body of research is illness self-management (ISM). ISM interventions provide a framework for consumers to develop effective, personalized recovery strategies. ISM is compatible with a recovery-orientation, and there is growing research on the efficacy of self-management programs (Petros & Solomon, 2015). The most widely used ISM intervention is Wellness Recovery Action Plan (WRAP) (Roberts & Wolfson, 2004; Cook et al., 2012b). WRAP enhances recovery, self-advocacy, and hope in personal agency (Jonikas et al., 2013; Cook et al., 2012b; Cook et al., 2012a; Cook et al., 2010; Cook et al., 2009; Fukui et al., 2011; Higgins et al., 2012; Starnino et al., 2010); however, the magnitude of average change is “relatively modest” (Jonikas et al., 2013, p. 266; Cook et al., 2012b, p. 888), and it does not appear to increase hope in personal ability to devise strategies to meet identified goals (Cook et al., 2012b). Thus,
while WRAP is philosophically compatible with recovery and appears at least moderately effective at enhancing recovery, it does not appear to broadly impact consumers’ ability to independently develop strategies for problem resolution and goal attainment in pursuit of recovery.

If WRAP is a bellwether of the new direction of a consumer-centered mental health system oriented toward recovery, it ought to help mental health consumers take control of developing effective, personalized recovery strategies. Moreover, research on efficacy is insufficient to develop an understanding of how consumers learn and use ISM strategies through a program like WRAP. Qualitative and mixed methods research is necessary to understand facilitators and barriers as well as the key components of WRAP that help consumers learn and use self-management strategies. To better identify how to improve mental health services in a recovery-oriented system, this research seeks to answer the following questions: How do adults with serious mental illness learn and utilize WRAP’s framework for pursuing recovery, and what are major facilitators and barriers to learning and using WRAP’s framework?

The research required a sequential exploratory design in which qualitative and quantitative research findings were integrated to generate a more robust answer to the research question (Creswell, 2014). During the qualitative phase, a quantitative question emerged related to problem-solving and self-reflection as important facilitators and barriers to learning and using WRAP’s framework. Therefore, the research also answers the quantitative research question: For people who have completed WRAP programming, to what extent are problem-solving and self-reflection related to the degree of perceived recovery?
Serious Mental Illness

About half of the U.S. population will experience a behavioral health disorder in their lifetime (Kessler et al., 2005a), and approximately a quarter of the general public will experience a mental illness in any given year (Kessler, Chiu, Demler, Walters, 2005b). A smaller portion of people will experience serious mental illness, which typically includes Schizophrenia-spectrum Disorders, Bipolar Disorder, and Major Depressive Disorder (Center for Behavioral Health Statistics and Quality [CBH], 2016a). The National Survey on Drug Use and Health estimates an annual prevalence rate of 4% for serious mental illness (CBH, 2016b).

People with serious mental illness experience disproportionate rates of unemployment, poverty or near poverty, poor social support, low perceived quality of life, and decreased life expectancy (Olfson, Gerhard, Huang, Crystal, & Stroup, 2015; Nordt, Müller, Rössler, Lauber, 2007; Perese, 2007; Colton & Manderscheid, 2006; Saraceno & Barbui, 1997; Jones et al., 1993). For decades, the course of illness was characterized by an inevitable social and economic decline. The prognosis was often attributed to social underachievement, referring to the early onset of these illnesses leading to poor educational attainment and prolonged exclusion from the labor market, which precludes the inherent psychosocial and economic benefits of employment (Nordt et al., 2007; Jones et al., 1993). Such deficits-oriented discourse justifies dedicating resources to support people with serious mental illness, but it simultaneously reifies a narrative of people with mental illness as disadvantaged, inept, and incapable of controlling the direction of their lives.
In response, counter-narratives have slowly gained traction. People with serious mental illness are being cast as capable, empowered consumers of services. Research has demonstrated that not only is recovery possible, it may be a likely outcome resulting in people living healthy, fulfilling lives (Drake & Whitley, 2014; Menezes, Arenovich, & Zipursky, 2006; Anthony, 1993; Hegarty, Baldessarini, Tohen, & Waterman, 1994; Leff, Sartorius, Jablensky, Korten, & Ernberg, 1992; Deegan, 1988; Harding, Brooks, Ashikaga, Strauss, & Breier, 1987). Consumers are now recognized in policy as the leaders of their own journeys toward recovery (New Freedom Commission, 2003).

Recovery

Recovery is often used to describe three general topics. First, it is sometimes used to describe clinical recovery or remission, referring to the absence of symptoms of mental illness (Barber, 2012). Secondly, recovery sometimes refers to the long-term monitoring of illness wherein a person works with treatment providers to control symptoms and prevent illness exacerbation or decompensation (Barber, 2012). Third, recovery is most often used to describe personal recovery, an ongoing and non-linear process in which a person seeks a life worth living regardless of the presence of symptoms (Barber, 2012; Anthony, 1993; Deegan, 1988). This third type of recovery is most widely endorsed by consumers, codified in the President’s New Freedom Commission on Mental Health (New Freedom Commission, 2003), and is the vision for recovery used in this research project.

A narrative synthesis of more than twenty years of recovery literature resulted in five broad categories to describe recovery with the acronym CHIME (Leamy, Bird, Le Boutillier, Williams, & Slade, 2011). According to Leamy and colleagues, consumers
feel a sense of advanced recovery when they have positive social connections, experience hope and optimism about the future, develop a positive identity apart from illness, find meaning in life while accomplishing personal goals and engaging in meaningful social roles, and build empowerment by exercising personal responsibility and taking control of their lives.

The Necessity of Hope in Recovery

Deegan (1992), a pioneer in recovery literature, described a central problem with the mental health system; it creates and perpetuates a cycle of disempowerment and despair. Deegan described the process as follows: A paternal system of care presumes the incapacity of people with serious mental illness. Providers prescribe a restrictive treatment plan, reward compliance, punish non-compliance, and interpret mindful deviation from treatment plans as evidence of illness. People with mental illness are thus reinforced for acquiescing to a system that progressively takes more control, and learned helplessness takes hold. For Deegan, hope is the antidote – hope to recover from the system’s “spirit breaking” and hope that a person can learn the requisite skills to re-take control and create a life worth living (p. 13). A recovery-oriented mental health system will therefore oppose the development of learned helplessness and engender hope.

Hope broadly refers to the belief that goals are achievable and is comprised of two components: agency and pathways (Snyder et al., 1991). “Agency” refers to a perception that a person can reach one’s goals through successful determination (Snyder et al., 1991). Simply put, a person with a high degree of hope believes that personal goals can be accomplished through determined effort – effort that that person is capable of exerting and sustaining through goal completion. “Pathways” refers to the belief in one’s ability to
generate successful plans to meet identified goals (Snyder et al., 1991). Taken together, hope describes a person’s cognition related to the reciprocal relationship between agency and pathways: the belief that one can exert the necessary determination and that one has the ability to identify strategies for successful goal attainment. Recovery-oriented interventions, therefore, support and foster a person’s hope: the belief that recovery is possible and the belief that a person can identify strategies for recovery.

**Illness Self-Management**

Illness Self-Management (ISM) programs are designed to help consumers advance recovery by fostering hope and encouraging self-regulated learning in service of developing effective, personalized recovery strategies (Petros & Solomon, 2015). Rather than offering a list of strategies for consumers to learn and utilize, ISM programs offer a framework for personal exploration, encouraging trial and error in daily life to identify and create plans to manage illness, maximize wellness, and attain goals. ISM programs offer the ultimate contrast to outdated, paternal interventions in which a medical provider unilaterally prescribed treatment; consumers are recognized as the experts of their lived experience and are encouraged to reflect on what works while partnering with others as necessary to develop new strategies for resolving barriers to recovery. Thus ISM programs operate on two levels. First, they offer hope through empowerment and identity transformation as consumers begin to see themselves as active agents, capable of sustaining the requisite effort for the pursuit of recovery. Second, they offer a framework to advance skills in developing recovery strategies.

To support skill development, ISM programs rely on, and reinforce, the three processes of self-regulated learning: self-observation, self-judgment, and self-reaction
Self-observation refers to monitoring one’s overall performance and progress toward goals (Zimmerman, 1989). It requires self-reflection about one’s experience and goals. For example, a person may strive to develop awareness of the physiological and emotional differences between states of high and low stress in order to track progress toward increasing emotional regulation and decreasing stress.

Self-judgment involves reflecting on one’s own performance and comparing it to some other goal or standard (Zimmerman, 1989). Continuing the previous example, a person may see a peer’s skill in managing a stressful situation and compare one’s own success in a similar situation. The degree of divergence in perceived stress may indicate the relative success of one’s strategies. In this way, self-judgment is related to Social Comparison Theory (Solomon, 2004; Festinger, 1954). Alternatively, a person may not compare oneself to someone else at all and instead rely on an internal goal related to self-rated stress as a benchmark for evaluating progress toward navigating stressful situations.

Self-reaction describes the process of reacting to the valuation of one’s self-observation and self-judgment (Zimmerman, 1989). It may be that a person is satisfied with the rate of progress toward regulating emotions, concluding one is highly efficacious in using identified strategies. Subsequently, that person may be willing to set higher goals and continue pursuing mastery of self-regulation using those same strategies. On the other hand, people unsatisfied with their progress may decide to modify or abandon strategies and pursue new solutions.

While some people may be highly self-reflective and skilled in monitoring progress toward recovery, others may experience difficulty. Self-regulated learning is probably not an absolute and stable state of functioning, and it likely varies according to
socio-environmental context as well as knowledge and metacognitive skill (Zimmerman, 1989). Because people with serious mental illness may also have some underlying cognitive deficits (Eack, 2012; Eack et al., 2010; McGurk, Twamley, Sitzer, McHugo, & Mueser, 2007; McGurk & Mueser, 2004; Young et al., 1998; Heinrichs & Zakzanis, 1998) and varying levels of exposure to well-accepted wellness strategies, the degree to which people can independently engage in self-regulated learning to develop personalized recovery strategies likely also varies.

**Wellness Recovery Action Plan (WRAP)**

WRAP may be the most widely used ISM program in the US and has flexible programming (Roberts & Wolfson, 2004; Cook et al., 2012b). WRAP is most commonly offered in a small-group format over the course of 8-12 weekly sessions. People can also complete WRAP in a condensed group format lasting a few days, one-on-one with a facilitator, or independently with a WRAP workbook. Originally, WRAP was co-facilitated by certified peers in advanced states of recovery, but the definition of “peer” has since expanded to include any person who practices WRAP regardless of personal experience with mental illness.

Mary Ellen Copeland, WRAP’s creator, incorporated content on what she identifies as the key concepts of recovery as well as structured guidance for developing a series of plans containing recovery strategies (Copeland, 2010). “Key concepts” refers to the way people think about themselves and interact with others as they pursue wellness. Hope is prominently featured, and consumers are encouraged to believe in the possibility of living a full and self-directed life (Copeland, 2010). WRAP also emphasizes personal responsibility, education, self-advocacy, and support (Copeland, 2010). The key concepts...
aim to enhance participants’ perceived recovery and overlap with three major constructs of recovery as described in CHIME: hope, social connectedness, and empowerment (Leamy et al., 2011).

Strategies to pursue wellness are constructed through the process of developing a series of plans. First, participants are encouraged to engage in self-reflection. As participants develop insight into what they look and feel like when they are well, they become aware of personal indicators of decrements to wellness. Second, participants are guided through activities to identify accessible strategies that are effective in maintaining and promoting wellness. These strategies are incorporated into plans for use on a daily basis, on an as-needed basis to respond to triggers and threats to wellness, and during a crisis when others will be directed to take control of specific pre-determined decisions. By creating these plans, consumers ideally increase self-awareness and insight, identify strategies for maintaining wellness, and develop contingency plans for managing risks to wellness. At the end of programming, consumers should have enhanced insight about antecedents and triggers of illness exacerbation, and they should have clear strategies to reestablish, maintain, and promote wellness (Cook et al., 2012b; Copeland, 2010). The culminating plan of action contains personalized strategies to maximize wellness, promote recovery, and prevent and manage crisis (Cook et al., 2012a; Cook et al., 2012b; Copeland, 2010).

Empirical evidence supports WRAP’s efficacy at promoting recovery, enhancing hopefulness, reducing symptoms, improving quality of life, and increasing self-advocacy (Jonikas et al., 2013; Cook et al., 2012a; Cook et al., 2012b). Leading researchers of WRAP acknowledge statistically significant though “relatively modest” changes in
outcomes (Jonikas, 2013, p. 266; Cook et al., 2012b, p. 888). Raw hope scores on a well-used scale vary 8.6 points between low- and high-hope college women (Irving, Snyder, & Crowson Jr, 1998). The same measure used in a landmark randomized controlled trial of WRAP, revealed that post-intervention hope scores were only 2.1 points higher than the low-hope college women group and only .6 points higher than the control group (Cook et al., 2012b). Raw changes to recovery scores revealed a similarly “modest” improvement. Post-trial recovery scores for the experimental and control conditions were separated by only 1.7 points: 93.7 and 91.2, respectively (Cook et al., 2012a). Although the changes are small, they may be personally significant for participants (Cook et al., 2012b). Additionally, there may be ways to enhance the magnitude of change, specifically for subgroups of participants who experience more marginal benefits.

Although hope is thought to be a relatively stable construct (Snyder et al., 1991), WRAP seems to increase overall hope scores (Jonikas et al., 2013; Cook et al., 2012b; Cook et al., 2010; Cook et al., 2009; Fukui et al., 2011). The scale used to measure hope evaluates both domains of the construct: agency and pathways (Snyder et al., 1991). Hope Scale subscales show that WRAP only increases agency – hope in personal agency to initiate and sustain actions (Cook et al., 2012b). No increase was found in the pathways subscale: hope in personal ability to devise strategies to meet identified goals (Cook et al., 2012b). This suggests that consumers may require additional support to develop and enact strategies to actualize WRAP goals (Cook et al., 2012b) and to create and adapt WRAP plans prospectively as facilitators and barriers to goal attainment change.
While WRAP may be transformative for some, others experience minimal benefit. It may be that consumers who benefit the most already have strong problem-solving skills to facilitate goal attainment. Similarly, it may be that highly self-reflective people are naturally more skilled at the processes of self-regulated learning and can therefore continue to reflect on and refine WRAP plans and recovery strategies independently once the programming has ended. Research is needed to investigate the ways in which consumers learn and use WRAP’s framework to pursue recovery, and the factors associated with more and less successful use of WRAP’s framework in order to enhance its effectiveness and expand its reach to those who experience only marginal benefits.

**Theories Informing Qualitative Inquiry of WRAP**

For the qualitative portion of this study, I employed an interpretive descriptive approach using inductive thematic analysis. However, even inductive analysis begins with what a researcher knows and the influences and motivations that drive the project’s initiation; therefore researchers should explicitly describe the theories that undergird the conceptual framework, approach to data collection, and the reflexive process of data-driven analysis in the context of extant knowledge (Bradbury-Jones, Taylor, & Herber, 2014). Two theories in particular have informed my thinking as I conceptualized the project and prepared for data collection: Self-Determination Theory (SDT) and Social Cognitive Theory (SCT).

**Self-Determination Theory.** SDT is a macro-theory about motivation, social development, and well-being (Ryan & Deci, 2000). The theory posits that all people are inherently equipped with a drive toward growth and wellness, and people will naturally strive toward realizing their full potential if their psychological needs are met for
autonomy, competence, and relatedness (Deci & Ryan, 2015; Ryan, 2009; Deci & Ryan, 2008; Ryan, Huta, & Deci, 2008; Ryan & Deci, 2000). SDT describes the processes behind activities that elicit intrinsic and extrinsic motivation (and amotivation) that ultimately impact a person’s social development and overall wellbeing.

Ryan and Deci (2000) claim that humans are gifted with deep wells of intrinsic motivation, but many activities are extrinsically motivated by things such as tangible rewards or social pressures. Whereas intrinsically motivated activities involves doing activities for their inherent pleasure, externally motivated activities are performed for the purpose of obtaining some outcome or reward separate from the experience of the activities themselves. The degree to which a person finds internal motivation for engaging in activities is directly associated with increased persistence, behavioral quality and mastery, and overall wellbeing (Ryan & Deci, 2000). In other words, a person is more likely to feel a sense of volition about engaging in an externally motivated activity with higher degrees of “internalization” – the process by which a person accepts and takes ownership of the value of engaging in the activity (Ryan & Deci, 2008). A higher degree of internalization is correlated with increased persistence toward goals, enhanced behavioral effectiveness, and improved wellness (Ryan & Deci, 2008).

SDT posits that a person’s environment can support (or discourage) internalization and motivation for task completion and goal-oriented activities by meeting the three basic psychological needs for autonomy, competence, and relatedness. For instance, people may engage in externally motivated activities because sufficient social pressure exists, and by adopting the social value for that activity, internalization increases. Thus relatedness is an important factor for internalization. Similarly, people are
more likely to adopt and internalize the value for certain activities if they feel efficacious in executing the activity (competence) and if they feel control over its execution (autonomy). Ultimately, a person’s wellness is related to the degree of internalized motivation for activities, which is in turn impacted by the relative support in one’s environment for autonomy, competence, and relatedness.

Historically, the mental health system did not excel at meeting these three psychological needs. Providers defined serious mental illness by its predicted course of decline and decompensation, often prescribing long-term institutionalization. In this context, people were robbed of deciding where to live (autonomy), prevented from engaging socially with family and friends outside of the institution (relatedness), and were prevented from working and contributing to the larger society (competence). Even for people with serious mental illness living in the community, providers typically directed mental health services, and the focus of treatment was often increasing compliance to treatment plans, regardless of the consumer’s endorsement or participation in its development; such an approach is the antithesis of autonomy and competence.

Self-management interventions privilege consumers’ voices and encourage a self-directed approach to building recovery strategies. WRAP seeks to empower consumers to take personal responsibility for their wellness (autonomy) and works to support skills-building (competence) through self-reflection and cooperative learning (relatedness) between group members and facilitators who all mindfully commit to pursuing recovery. While WRAP literature makes no overt mention of its theoretical underpinnings, SDT appears compatible with its overall approach to helping participants realize their full potential.
Social Cognitive Theory. SCT delineates the reciprocal determinism of personal and sociostructural factors that facilitate and constrain health and wellness (McAlister, Perry, & Parcel, 2008; Bandura, 2004; 1998; 1977). The theory describes how people learn and enact behaviors influenced by social norms, values, and expectancies within one’s social environment, and it may relate to how participants learn and enact self-management behaviors through WRAP’s group programming.

Observational learning. SCT suggests that people can learn health behaviors (in this case, recovery-oriented behaviors) by observing those behaviors in others, retaining that learning, and mimicking or reproducing the behaviors on one’s own (McAlister et al., 2008). Personal motivation to engage in learned behavior is moderated by outcome expectancies (related to expectancy theory or expectancy-value theories) of engaging in that behavior (McAlister et al., 2008; Maddux, Norton, & Stoltenberg, 1986). In WRAP, peer facilitators theoretically serve as behavioral models, testifying to the program’s effectiveness and providing personal examples of how WRAP advances recovery; thus, the more that participants believe in the effectiveness of WRAP as evidenced by the facilitators, the more likely they will be to emulate similar behaviors.

Self-regulation. People implement goal directed behavior through a process of self-regulation that includes a number of steps. Broadly speaking, those steps involve observing oneself, setting goals, obtaining feedback, and using self-talk and social support to bolster change efforts (McAlister et al., 2008). Similar to self-regulated learning, this component of SCT requires metacognitive skills, self-reflection, and executive functioning skills, which are often diminished for people with serious mental illness – particularly for people with schizophrenia.
WRAP guides people through many of the steps involved in self-regulation. Program facilitators encourage participants to consider themselves at various degrees of wellness to develop awareness of signs they are well and signs of things “breaking down” or approaching crisis states (Copeland, 2010). WRAP encourages people to use those observations to create wellness goals and associated action plans. A person is then coached to routinely monitor oneself, obtain feedback, and enlist social support to maximize progress towards goals. Participants are encouraged to review their plan daily and to create new WRAP plans prospectively to address other wellness goals, using the same self-regulation process to resolve barriers to goal attainment and enlist social support to actualize WRAP goals.

**Environmental Determinants of Behavior.** The relative supportive or discouraging features of a person’s physical and social environment impact a person’s behavior. Like SDT, this component of SCT relates to motivation and how a person’s environment can increase or decrease motivation to engage in health behaviors (McAlister et al, 2008). Although social support spans several theoretical constructs of SCT, it features predominantly in environmental determinants of behavior and plays a pivotal role in WRAP. Social supports are especially integrated into the crisis and post-crisis components of WRAP, wherein participants pre-arrange how others should step-in to take control of certain decisions and activities that a person may be temporarily unable to complete independently. A plan’s success is dependent upon social supporters’ participation. Additionally, group programming relies on social processes to support the development and enactment of recovery-oriented behaviors, and the group setting
functions as a small-scale environment as it impacts a person’s motivation to engage in health behaviors.

Adults with serious mental illness often identify challenges in building meaningful relationships, especially friends, to establish and augment social networks (McCorkle, Dunn, Wan, & Gagne, 2009; McCorkle, Rogers, Dunn, Lyass, & Wan, 2008; Davidson et al., 2004; Davidson et al., 2001). Their social networks tend to be small, strained, and largely made up of family members and professionals with minimal reciprocity (Corrigan & Phelan, 2004; Froland et al., 2000; Davidson et al., 2001; Pattison & Pattison, 1981). Reciprocity is an integral component of recovery (Petros, Solomon, Linz, DeCesaris, & Hanrahan, 2016) and is necessary for satisfaction in social support and maintenance of social networks (Gouldner, 1960; Skovholt, 1974; Horwitz, Reinhard, & Howell-White, 1996; Pernice-Duca, 2010). More specifically, adults with serious mental illness often struggle to engage in reciprocal problem-solving exchanges (Wong, Matejkowski, & Lee, 2009), which may limit the extent to which participants gain skills in resolving barriers to achieving recovery goals. Furthermore, there seems to be a reciprocal causal relationship between symptoms and social support, suggesting that for social support to thrive, people must develop strategies for managing symptoms while simultaneously, enhanced social support leads to decreased symptoms (Markowitz, 2001). Extant literature paints an equivocal picture of WRAP’s effectiveness at increasing (Cook et al., 2010; Cook et al., 2009) and using (Cook et al., 2012a) social support.

**Moral disengagement.** One limitation of social support is that it may contribute to “negative, unsupportive, and upsetting transactions” (Hall & Nelson, 1996, p. 1744).
People’s social supports may encourage them to engage in, rationalize, and justify behavior contrary to wellness goals.

*Psychological determinants of behavior.* Several psychological factors have been linked to a person’s likelihood of engaging in health behaviors. Two constructs that garner a lot of attention are self-efficacy and outcome expectations (McAlister et al., 2008). Outcome expectations refer to a person’s estimation of outcomes associated with engaging in a particular behavior (Maddux, Norton, & Stoltenberg, 1986). That behavior could refer to a specific recovery strategy, or it could refer to the behavior of using WRAP. Presently, there is no literature defining the behavior of “WRAP utilization.” Copeland (2010) suggests that a person should create a written WRAP plan, review it daily until rote, and complete the steps on the plan each day; however, no research has investigated how people actually use WRAP. Until the behavior of WRAP utilization is identified, it will be difficult to understand the mechanisms by which WRAP produces change in recovery outcomes.

Self-efficacy, often seen as the most important component of SCT, refers to one’s self-evaluation of personal ability to effectively engage in a behavior or utilize a strategy to achieve an intended outcome (Bandura, 2004; 1977). Much of the available research on WRAP has overlooked measures of self-efficacy, but other constructs, such as hope, suggest that consumers continue to have a lower estimation of their ability to resolve barriers to recovery and successfully develop a plan to achieve goals (Cook et al., 2012b). It could be that consumers require additional support to augment self-efficacy in perceived ability to develop and enact strategies to actualize WRAP goals prospectively with changing life circumstances.
Problem-solving and goal attainment. Although problem-solving is not a component of SCT, it may be central to self-efficacy as it relates to WRAP. Problem-solving broadly refers to the cognitive-behavioral process by which a person identifies and enacts solutions to problems and resolves barriers to goal attainment (Sands & Gellis, 2012; D’Zurilla, Maydeu-Olivares, & Gallardo-Pujol, 2011; Nezu, 2004; Nezu, D’Zurilla, Zwick, & Nezu, 2004; D’Zurilla & Goldfried, 1971). People with serious mental illness sometimes lack the requisite problem-solving skills to develop and implement effective strategies for goal attainment (Chang, D’Zurilla, & Sanna, 2004; Davidson et al., 1999; Bellack, Sayers, Mueser, & Bennett, 1994) and may struggle to develop and utilize a WRAP plan as a result. Problem-solving self-efficacy is critical for effective WRAP utilization: people with greater self-efficacy develop more effective strategies for goal attainment and are more committed to achieving goals (Locke & Latham, 2002). It may be that problem-solving moderates changes in recovery outcomes of WRAP.

At face value, a focus on problem-solving may seem antithetical to the philosophy of WRAP, which purposefully excludes pathology and problem-saturated language in lieu of focusing on wellness. WRAP promotes recovery with a strengths-based approach, underscoring self-determination. Problem-solving theories support self-determination and personal / interpersonal competence with strategies for goal attainment. Although problem-solving uses the language of “problems,” the impulsion is toward solutions and goal attainment. Therefore, investigating problem-solving is compatible with WRAP tenets because it focuses the examination on strategies for solutions and wellness while offering a hypothesized, malleable (Bellack et al., 1994; Chang et al., 2004; Eack, 2012;

This main purpose of this research is to explore and identify how people learn and use WRAP and to identify major facilitators and barriers to learning and using WRAP’s framework. Although the qualitative phase of the research does not seek to test either SDT or SCT, both theories have informed the conceptualization of the research project as well as data collection.

**Overall Study Design, Research Questions, and Hypotheses**

This study used a sequential exploratory design (Creswell, 2014; Kettles, Creswell, & Zhang, 2011), and all phases of the research protocol were approved by Institutional Review Boards at the University of Pennsylvania and the city of Philadelphia. In a sequential exploratory design, qualitative inquiry is emphasized and conducted first. Integration between the qualitative and quantitative phases occurs through “building,” where the qualitative data are analyzed, and the findings inform data collection for the quantitative research phase (Fetters, Curry, & Creswell, 2013). After the quantitative data are analyzed and reported, findings from both phases are used to develop final interpretations resulting from the entire mixed methods study (Creswell, 2014). The goal of the study is to investigate the question: How do adults with serious mental illness learn and utilize WRAP’s framework for pursuing recovery, and what are major facilitators and barriers to learning and utilizing WRAP’s framework? Based on findings from the qualitative phase, problem-solving and self-reflection were identified as major facilitators and barriers to learning and using WRAP’s framework, and quantitative research allowed me to isolate the relative contributions of those variables on recovery.
Because the extent to which a person is troubled by symptoms and the degree of positive social support are instrumental to a person’s degree of perceived recovery (Sands & Gellis, 2012; Pernice-Duca, 2010; Hendryx, Green, & Perrin, 2009; McCorkle et al., 2008; Corrigan & Phelan, 2004; Markowitz, 2001; Corrigan, Giffort, Rashid, Leary, & Okeke, 1999; Griffith, 1985), the quantitative phase measured both variables and used them as controls for each hypothesis. The quantitative phase of the study tested the following hypotheses:

1. A higher degree of self-reflection will be associated with higher degree of perceived recovery, controlling for social support and symptoms.

2. A higher degree of problem-solving confidence will be positively related to a higher degree of perceived recovery, controlling for social support and symptoms.

3. The relationship between self-reflection and degree of perceived recovery will be moderated by degree of positive problem-solving appraisal (measured by all three subscales of the Problem-Solving Index), controlling for social support and symptoms.
CHAPTER 2: Qualitative Methods

Phase One: Qualitative Methods

The first phase of the research employs an interpretive descriptive methodology using thematic analysis (Braun & Clarke, 2006). Qualitative inquiry seeks to understand the experience of a phenomenon from the perspectives of the people who experience it. However, qualitative approaches vary in their orientation to collecting, analyzing, and making meaning of data. One important factor distinguishing methodological traditions is the degree to which researchers use their own interpretations to understand data and present findings. A qualitative descriptive methodology in the tradition of Sandelowski (2010; 2000) may remain very close to the surface of words and data while an interpretive descriptive methodology increases the degree of interpretation of data (Thorne, Kirkham, & O'Flynn-Magee, 2004; Thorne, 2000; Thorne, Kirkham, & MacDonald-Emes, 1997).

A key difference in selection and implementation of descriptive approaches involves the matching of analytic methods: content analysis minimizes interpretation while thematic analysis requires more abstraction to interpret and identify, organize, and report patterns or themes within the data (Vaismoradi, Turunen, & Bondas, 2013; Braun & Clarke, 2006). One aim of this study is to describe how people use recovery strategies, suggesting that a surface-level analysis of data might be sufficient. However, more interpretation is required to understand and describe how people learn and utilize WRAP’s framework and the ways in which participants’ experience with WRAP changed their perceived recovery. Thus an interpretive descriptive methodology
employing the method of thematic analysis best matches the goals for the research project.

**Positionality.** Braun and Clarke (2013; 2006) warn of the dangers of pretending that themes passively “emerge” from data due to the active interpretation required of researchers in developing findings. Because of the necessarily subjective nature in identifying patterns and constructing findings, researchers are responsible for describing positionality and disclosing influences to the process of data collection and analysis (Marshall & Rossman, 2016; Creswell, 2013).

Positionality describes researchers’ interest in the topic as well as relevant personal and scholarly background related to the research (Marshall & Rossman, 2016; Creswell, 2013). Disclosing positionality increases transparency, providing the reader some insight into the researchers’ epistemological assumptions, biases and motivations, and values; and it may enhance credibility and trustworthiness in the research findings.

I have experience providing clinical social work services to adults with serious mental illness, but I have not personally experienced a psychiatric disability. WRAP was developed by and for people with serious mental illness, and I was not originally the intended audience for the program. However, in the time since WRAP was developed, the target audience has expanded to include anyone interested in pursuing wellness regardless of personal experience with mental illness. As such, I went through WRAP programming myself and developed a personal plan for wellness. Engaging with WRAP in this way provided some experiential knowledge of the programming, the process of using WRAP’s framework, and the process of creating and using a plan that I created.
However, because I do not have lived experience with serious mental illness, I cannot assume my personal experience with WRAP mirrors the experience of the research participants, and I did not want to appropriate the story of how people with lived experience of serious mental illness learn and use WRAP to pursue recovery. Therefore, during the conceptual phase of the research, before active research began, I attempted to evaluate personal biases and spoke with people with mental health challenges who personally used WRAP. I read literature and considered how existing theories, such as SCT and SDT, may impact my understanding of the topic and approach to inquiry. Blumer (1954) describes the use of existing knowledge as “sensitizing concepts” wherein researchers make use of available knowledge not as definitive authorities, but merely as suggestions for the “directions along which to look” (p. 7). Thus my experiential knowledge and understanding of formal theory directed the way I looked at data collection and analysis, but using an inductive approach to analysis enabled the data themselves to shape my analysis unbounded by the structure of extant theory (Bradbury-Jones et al., 2014).

**Data collection.** Data were collected primarily through interviewing and began with group interviewing. Focus groups help to generate breadth of information quickly and are useful when interaction between group members is desired (Creswell, 2013; Braun & Clarke, 2013). Focus groups are “socially-oriented” and create a more naturalistic setting than one-on-one interviews (Marshall & Rossman, 2016; Braun & Clarke, 2013). Focus groups have intuitive appeal for this research because WRAP programming most often occurs in group settings, and group dynamics that influence participants’ experience with WRAP may be recreated in a group interview setting.
Furthermore, focus groups presume that beliefs and attitudes are socially constructed (Marshall & Rossman, 2016), and WRAP relies on interactions between the facilitators and group members to collaboratively explore and identify the meaning of recovery and effective strategies for pursuing it.

Three focus groups were planned with 7-10 participants each, and three focus groups were completed with 11, 7, and 8 participants each (see Table 1 for demographics). Each focus group took place at a different agency located in Philadelphia, PA. One was a mental health association, and the other two were designated as Community Integrated Recovery Centers (CIRCs), which specialize in providing individualized, community-based recovery-oriented services to adults with serious mental illness. One of the CIRCs has a medical clinic, specializes in mental health and substance use treatment, and has a satellite program dedicated primarily to older adults. The other CIRC specializes in dual diagnosis treatments and has numerous medically assisted therapies available for substance use and mental health treatment, including detox, Buprenorphine treatment, and psychotropic medication management. At each location, I met with agency administrators to obtain permission to recruit consumers of agency services and leave recruitment posters. At all three locations, administrators agreed to share the research opportunity within their various centers and ask staff members to invite participants and other staff members to speak with me about participation. Administrators and staff at each location requested autonomy to invite people to speak with me about the research, thus I used a combination of purposive and nominations sampling (Padgett, 2017). I traveled to each organization and met with eligible participants to obtain informed consent and conduct the focus groups. I personally
facilitated all three focus groups with a note taker present, who took notes by hand. Eligible participants signed informed consents and were given $20 and two subway tokens at the completion of the focus group as an incentive for their participation. To enhance confidentiality, participants were asked to select and use a pseudonym throughout the focus group.

The first focus group included WRAP facilitators who self-identified as having experienced serious mental illness. Individuals can be certified to facilitate WRAP programming only if they have completed WRAP themselves and practice using it in their own lives. WRAP facilitators are likely to endorse the benefits of WRAP because they have to personally invest in using it in order to be eligible to facilitate the programming for others; they are also likely to have thought about facilitators and barriers to learning and using WRAP since their job is to teach WRAP to others and help them incorporate recovery strategies into their daily lives. Because WRAP facilitators may be different than other WRAP users, the second and third focus groups included only non-facilitators who self-identified as having serious mental illness. Participants of focus groups two and three completed WRAP programming and developed personalized WRAP plans but did not progress to become WRAP facilitators. There were no exclusion criteria for focus group one, and the inclusion criteria included the following:

1. Adults (at least 18-years-old) who self-identify as having experienced serious mental illness
2. Have completed WRAP programming
3. Have completed WRAP facilitator training
For the second and third group, there were two inclusion criteria and one exclusion criterion:

1. Inclusion criteria:
   a. Adults (at least 18-year-old) who self-identify as having experienced serious mental illness
   b. Have completed WRAP programming

2. Exclusion criterion:
   a. Participants may not have completed WRAP facilitator training

A semi-structured interview guide (see Appendix A for initial focus group guide) was developed for the focus groups in order to gather consistent information while retaining flexibility to follow-up with participants as needed (Creswell, 2013). The focus groups were also used to refine interview guides for individual interviews (see Appendix B for initial individual interview guide). All interviews began with an open-ended invitation to talk about WRAP such as, “Tell me about how you are currently using WRAP.” As interviews progressed, more specific questions were asked. Some were informed by SCT. For example, to investigate outcome expectancies, participants were asked, “If someone you knew asked what they would gain from going through WRAP programming, what would you tell them they would gain?” To inquire about a possible role of observational learning, questions were asked such as, “Tell me about the facilitators” with probes about if and how facilitators shared personal recovery strategies and how that sharing impacted participants’ experience with and motivation for using WRAP. Other questions were developed based on SDT, such as investigating a person’s
environment and relatedness: “What do people in your life think about you using WRAP?”

Following the focus groups, 10 one-on-one in-depth interviews were conducted with the following inclusion and exclusion criteria:

1. Inclusion criteria:
   a. Adults (at least 18-year-old) who self-identify as having experienced serious mental illness
   b. Have completed WRAP programming

2. Exclusion criterion:
   a. Participants may not have completed WRAP facilitator training

I partnered with two mental health agencies in Philadelphia, PA to recruit a purposive sample of participants for individual interviews, using nominations sampling (Padgett, 2017). Both agencies were certified as CIRCs, and one of the agencies had also participated in recruitment for a focus group. I met with agency staff and administrators at each location to present the research project and gain permission to recruit participants from consumers accessing services at the agencies. I provided recruitment posters and asked staff members to invite consumers to meet with me to discuss the research project. To avoid recruiting a sample of WRAP enthusiasts only, I worked with agency personnel to invite at least two people who reported difficulty learning or using WRAP.

At one CIRC, a staff member at a service center specializing in serving older people with serious mental illness had identified consumers who wanted to participate in the research but were unable to attend the focus group; I arranged to spend a day in the service center to recruit and interview participants individually. The other CIRC
specializes in service to adults with serious mental illness and adults with intellectual disabilities. I arranged to spend two days at the CIRC to recruit and interview participants individually.

During my three days in the field, all ten people who spoke with me about the research agreed to participate. All eligible participants signed an informed consent document and upon completion of the interview were given $20 and two subway tokens as an incentive for their participation. All 10 participants gave permission to be contacted one additional time for member checks, and all 10 were given the same incentive payment again after participation in the member check.

All participants agreed for focus groups and individual interviews to be audio recorded. Recordings were transcribed verbatim by a transcription company with identifying information removed, and I personally reviewed the transcripts for accuracy. Transcriptions were entered into NVivo 10, a qualitative data management software program (NVivo, 2012), for further analysis.

Table 1 shows the demographics of all the participants of the focus groups and individual interviews. The sample was almost equally split between men (19) and women (17), and 28 of the 36 participants were Black. Age ranged from 36 to 60 with an overall mean of 50.6, and the most common diagnosis was schizophrenia.
Table 1
Demographics for Interview Participants

<table>
<thead>
<tr>
<th></th>
<th>Focus Group 1: Number/ Mean (SD)</th>
<th>Focus Group 2: Number/ Mean (SD)</th>
<th>Focus Group 3: Number/ Mean (SD)</th>
<th>Interviews: Number/ Mean (SD)</th>
<th>Total: Number/ Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>19</td>
</tr>
<tr>
<td>Women</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>17</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Black/AA</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td>Latino/a / Hispanic</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Asian/ PI</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Age</td>
<td>47.1 (6.2)</td>
<td>49.1 (8.6)</td>
<td>49.9 (10.0)</td>
<td>56.1 (4.7)</td>
<td>50.6 (7.9)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>1</td>
<td>6</td>
<td>5</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Schizoaffective</td>
<td></td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Bipolar</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Major Depression</td>
<td>3</td>
<td></td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Analysis. Thematic analysis is aligned with a social constructionist epistemology where researchers seek to identify patterns and meanings within data, and language is understood as deriving from socially constructed meaning (Braun & Clarke, 2006). Unlike other qualitative approaches that are founded upon clear theoretical orientations, thematic analysis is atheoretical and can be adapted for use with a variety of frameworks (Braun & Clarke, 2006). Here, data were analyzed inductively, meaning no pre-existing theory or model was used to drive analysis. Instead, themes were identified from a “bottom-up” approach so that they remained very close “to the data themselves” (Braun & Clarke, 2006, p. 83). Sensitizing concepts of SCT and SDT guided original conceptualization of the research and the development of initial interview guides;
however, the iterative process of analyzing data, refining subsequent data collection, returning to data analysis, and structuring themes occurred without endeavoring to fit themes into pre-determined organizing structures. In this sense, thematic analysis is “data-driven,” and findings may bear little resemblance to the specific questions asked of participants (Braun & Clarke, 2006, p. 83).

Once transcripts from the three focus groups and ten in-depth interviews were entered into NVivo, I read through each transcript several times to familiarize myself with the data as a whole (Miles, Huberman & Saldana, 2014; Braun & Clarke, 2006). I then initiated first-cycle coding using descriptive codes. Descriptive codes are labels that are assigned to passages of interview data to describe the basic topic of the passage (Miles et al., 2014). The goal of first-cycle coding is to develop a broad array of the basic units of meaning ascribed to the data, a process referred to as horizontalization (Miles et al., 2014). I then engaged in second-cycle coding where I sought linkages between individual codes and grouped them into categories of meaning or themes (Miles et al., 2014).

**Enhancing rigor.** The credibility of qualitative research depends on the level of rigor used in all processes of the project (Marshall & Rossman, 2016). Three major strategies were used to enhance the rigor of this research project and increase the trustworthiness of the qualitative findings: memoing, engaging in a critical inquiry group, and member checking.

Memoing can be used to clarify researcher positionality, assist during the process of analysis, and track decisions during the course of data collection and analysis (Marshall & Rossman, 2016; Maxwell, 2013). Memos were kept throughout the research
process to increase reflexivity, deepen awareness of positionality, clarify direction in conceptualization and planning of data collection, track decisions on changes to interview guides, support the process of interpreting data (through analytic memos), and note areas of interpretation to discuss with a critical inquiry group.

Throughout the project, I met weekly with a critical inquiry group called the Advanced Qualitative Collective (AQC). AQC is made up of pre- and post-doctoral qualitative and mixed methods researchers and is led by a faculty expert in qualitative methodologies. The purpose of AQC is to advance scholarly study of qualitative research in a pedagogical space and critically examine and critique members’ work (Abboud et al., 2017). As a group, we interrogated my research conceptualization, qualitative approach, personal assumptions and biases, interview guides, my process of analysis, and the development of preliminary findings.

Once I developed preliminary findings from my qualitative work, I returned to all 10 participants of the in-depth interviews and completed member checks. Member checks are more than a perfunctory activity for relaying final findings to research participants; they offer an opportunity to collaboratively critique initial findings and transform the researcher’s understanding of data in a cooperative process with research participants (Birt, Scott, Cavers, Campbell, & Walter, 2016).

I completed member checks after data were collected from all interviews and preliminary findings had been constructed. Before member checks, I prepared scripts for each participant including a summary of my understanding of our in-depth interview as well as a summary of preliminary findings from the entire data corpus. I offered each
participant a chance to provide feedback and to collaboratively restructure any findings that were not fully resonant.
CHAPTER 3: Qualitative Findings

Participants shared the mechanics of how they use their WRAP plans and the purposes for which they use them. They also described deeper, internalized processes that are involved in learning and using WRAP that may better explain its benefits. WRAP programming normalized the experience of mental health challenges and enhanced participants’ understanding of recovery. They developed hope and internalized key concepts of WRAP that shifted their outlook on recovery and the strategies they employed to enhance wellness. Participants also discussed benefits and challenges of navigating two directions for developing recovery strategies: reflecting inward to deepen insight and reaching out to others for reciprocal support.

Mechanics of Using WRAP Plans

**Intentional routine activities.** Participants found that WRAP begins by focusing on “what’s strong rather than what’s wrong,” a mantra that is often repeated throughout the program. People reported transitioning their lives away from passively letting life lead them around and toward intentionally pursuing health and wellness. “You know, I was just sleeping. Eatin’ anything that I wanna eat. Doin’ what I wanna do. And now the WRAP group taught me to—you know, wellness, I got to be well in this” (Whitney – all names are pseudonyms to protect confidentiality). With guidance from the facilitators, participants carefully reflected on what they are like when they are well – how they feel, look, behave – and considered the kinds of things that they can do in order to experience wellness on a daily basis. Participants identified activities that are compatible with healthy living and easily accessible for incorporating into a planned daily routine. One participant shared the example her WRAP facilitator shared with her group:
Well, shoot, I got my wellness thing. My thing is, I get up in the morning, I drink me a glass of orange juice. I take my meds and lift my shades up and take my shower. Then I call my mom. (Barika)

Participants followed the modeling of the facilitators and developed their own plan with specific activities that they metaphorically store in their “toolbox,” which is either a written or mental list of accessible strategies to feel healthy and well.

Now, my toolbox is like my routine, waking up in the morning. I get out the bed, try to do a stretch exercise to see what's not right, and I try not to sleep with the air on cuz I be stiff. I do some stretches, and then I take a shower, eat a quick breakfast and come out, and then I try to do the exercise class…. having that plan and that routine is important for me, just like getting proper rest, eating right, sleeping right. (Isaiah)

Sometimes the list of activities was short and perfunctory, “You get up, eat, you take your medicine, all of the things that you need to do, everything’s to take care of ourselves” (Jayden). For others, the process of creating and updating daily lists became part of the ritual for organizing wellness activities:

So, I just made a list, and I have a calendar in the bathroom. I got a calendar in my kitchen. So I check off. You know…I have to take my medication at the same time every day, every night…. Monday, Tuesday and Wednesday. And every day is readin’ my bible when I get up in the morning. Makin’ my bed up…Like I said, I say my prayers. I make sure my apartment is tidy... And I always talk to my children every day and twice a day, you know. And that is a lot, you know. And then when I work, I get my stuff out for work. That’s one of ’em, ‘cause I work
Wednesday, Thursday, Friday, Saturday, and Sunday. I have two days off. You know, so I iron my clothes or wash my clothes. Now today when I go home I’ll wash my clothes, my bedding. I air my bed out. I air my apartment out. I got that down. I did that. I go pick up my prescripts. And I go shopping, get me somethin’ to eat for the week. (Whitney)

**Prescriptive, reactive strategies to cope with challenges.** Once people developed a thorough description of what they are like when they are well and the kinds of daily activities that help them stay well, they began building awareness of signs that their wellness is at-risk of deteriorating. For many, those warning signs were coupled with common problems and strategies to ameliorate those problems.

When I get angry, I take a walk, put my music in…then I’ll be all right. And then Samantha wants me to count to ten. It works sometimes. It really does. When I count to ten, I mean it works. I’ll take a walk, come back maybe 10, 20 minutes later. I’m good. (Mr. C)

Barika explained that the strategies to resolve problems remain relatively constant for her and her friends regardless of the source of the problem, and the key is to do something to change how one feels.

That’s why it’s called an action plan. You have to write down something that when you get to that point in your life where you’re that angry or that upset or that sad, you have to find a way to get yourself around that. That’s what your action plan is. If, like I said, his is fishing. Hers is her children. Mine’s is, mine’s is writing. His is music. Everybody got a different thing... Like when I’m feeling a certain way, like if I feel depression is about to set in or anything, I’ll do
something different, ‘cause I’ll go to my wellness toolbox and be like, “Well, when you’re depressed right here, this is what you normally do.” So, I normally make everything dark. So now, when I feel a little depression and stuff come on, I get up, I take my meds, I lift the shades up. I let some sunshine in. And I turn on the music. So that that helps me through. (Barika)

For many, relying on a written list seemed impractical, and after WRAP, they rarely if ever returned to the written plans they developed during the programming.

Things are internalized, and I think that’s really what’s supposed to happen. Because nine times out of 10, I’m not in the house when I’m going to experience a traumatizing event that might be a trigger. I’m going to be out in the community. So I feel as if it should be internalized because then I’m not going to rush home to read what my WRAP says. (Steven)

Most people agreed that of all the plans created during WRAP programming, the wellness toolbox was the most important. The wellness toolbox contains the strategies that people use to deal with challenging situations and feelings. A major difference is how comprehensive those tools are considered to be. Caleb said the tools in the box should “always” be effective and should generalize to every situation: “You should have every tool that you need in that toolbox when the time comes…. it’s like when you buildin’ a house. You start at the foundation, and you make it grow.” Others felt the toolbox was insufficient to deal with changing life circumstances and new problems that emerged once WRAP programming had ended:

Cuz the toolbox was virtually made for just what you discuss in the WRAP course. If you didn’t discuss certain things in the WRAP course and somebody
else did, you need their notes and their toolbox. Cuz that happened to them, but didn’t happen to you. Now it’s happened to you. Now you need their tools. So you need to talk to them and say, “Well what’s in your toolbox that helped you get outta that situation?” [Brandon]

**Reasons for Use: Maintenance and Prevention Versus Proactive Goal Attainment**

Participants generally agreed that a major goal of WRAP is to help people figure out how to maintain a basic level of wellness and prevent relapse:

[Learning responses to] something that triggers you, that upset you…I go through different stuff in the group, so say how to stay well. You get up, eat. You take your medicine. All of the things that you need to do – everything’s to take care of ourselves. (Jayden)

Some, like Caleb felt strongly that WRAP is primarily meant to provide a solid foundation to “keep you sturdy” so as to prevent relapse and keep people “on the road to recovery” and is not a panacea or a strategy to accomplish life goals. WRAP may primarily serve as a way to maintain a basic level of wellness and manage triggers and challenges that can lead to crisis.

[WRAP] means trying to keep myself from being’ placed in the hospital when I don’t need it. Just trying to keep calm…Try to keep what you need in your toolbox, try to pull out your crisis form as best you can, and then just continue to keep going. (Sue)

For Sue, her goals for using WRAP to maintain a basic level of wellness were compatible with her vision of recovery:
Recovery means just trying to keep on track every day. Waking up every day, taking a shower, coming to group, and just trying to be safe and positive. That’s the most important – staying safe and positive.

Others had different visions for their life and thus different ideas about what WRAP could do for them.

I knew I needed more. I just couldn’t be stuck like them...I’ve got things in life that I want to do. I’m not tryin’ to be 20 years here [at the mental health agency], or 25 years like most people. I can’t. Always talkin’ about it’s a whole big world out there. And if I can overcome my depression, I’m gonna go over there and try to do something. [During WRAP] I sat back and listened at first, for a minute. ‘Cause I wanted to know, “Will it help me?” Seriously. I wanted to know, “What’s in it for me? What can it do for me?” Not so much the other people, ‘cause they been here longer than I have. I was seein’ if they was in here, they was stuck, something ain’t right. I’m serious. And I wasn’t tryin’ to be like that. I wanted to change, I wanted something to do. (Brianna)

Participants talked about using WRAP to accomplish goals like returning to work, going to school, and smoking cessation.

It also gave me an opportunity to look at my whole life. And different areas of my life that I really would benefit from some adjustments, realignments… I thought, “I wanna go back to school. I’m at a stage in my recovery where I think I can handle this.” WRAP was the very first thing I went to. Because I know myself well enough to know that when I take on a lot of things, sometimes that’s a set-up for a fall… So this was an opportunity to say “Imani, you really want to do this,”
and “How can you do this and still walk through it and keep standing and keep growing and keep moving forward and stay well?” Um, “Develop a WRAP.”

(Imani)

**Normalizing Struggles and Enhancing Recovery**

Beyond the mechanics of how people use WRAP and for what purposes, WRAP had a profound impact on the way in which people understood their relationship to mental health challenges and recovery. Internalizing the key concepts of WRAP changed the way participants saw themselves in the world, and it directly impacted their perceived recovery and the attention they brought to pursuing wellness.

**I struggle, it’s okay, and I can learn to cope.** A number of participants shared a pre-WRAP unwillingness to admit to themselves or others that they struggled with mental health challenges. Because they ignored their problems, they never developed solutions to resolve them.

I still was in denial of my mental health challenges because I thought I was different, or more regular than the other people. I used to go to see the psychiatrist, and my thing was that whatever he put on that paper, “That’s not my problem.” But when I went to the WRAP and see other people – I thought that I knew some things. And there was other people that I thought have a higher-level mental health challenge than me. But they knew something better than me?…So that put me at the level, you know, to handle myself. To accept my illness, you know, my mental challenge, and give me hope that I am not that bad…Like I can live life and just get me in touch with myself. And be more honest about what my mental health challenge is. And do something about it. (Angel)
For many, stigma about mental illness prevented them from feeling comfortable enough to learn and pursue strategies to change. Rather than seeking support or accessing services, people chose to either ignore challenges or merely stoically bear the burdens they experienced.

I was wondering like how other people were managing their symptoms of mental health challenges. Cuz I had it, and I was embarrassed. And when I read about [WRAP], I was amazed at how many other people also had depression and other challenges. And how were they coping with it because, um, I guess growing up it was like an embarrassment to have these challenges, difficulties. And just to – knowing how other people were coping and living their life and recognizing that kinda like inspired me to make some changes in life. And not to feel embarrassed anymore being who I am. (Strawberry Shortcake)

By accepting their own contributions to the problems they experienced, people discovered personal responsibility for making change.

You know it scared me at in the beginning of WRAP, because it defined to me that I needed to change. And because of the fact – I was here to change. And I wanted to just stay…and I knew that if I did WRAP that that meant I would have to change. That meant I had to do some things to be different. And I didn’t embrace change in the beginning of my recovery. (Beautiful)

After accepting personal responsibility over problems, people began to accept responsibility for their solutions, thereby empowering participants with the realization that recovery was in their control. Thus, WRAP helped them learn that they could cope with mental health challenges and take charge of their recovery.
I didn’t have to waste money and letting somebody say well, “You should do this. You should do that.” I started noticing the things that I need to do for me. I started noticing that I need to make a list of these things so I could pay attention to it. You know cuz a lot of times people see things in you that you don’t see in yourself, and you be like, “Uh-uh, that ain’t me.” So once I started paying attention to myself, like I stopped going to see other people. And that made a big difference in my life. Like the denial just went out the window. Like, “I need this. I need this help. I need help. I, this is what I need to do for me.” (Hope)

**Reaching out, connecting with others.** Participants reported various reasons for keeping personal struggles with mental illness to themselves, but a common experience was struggling alone. In order to feel comfortable reaching out, people first wanted to know that others shared similar experiences, that reaching out was normal, and that getting support was helpful. Many learned those lessons in WRAP programming where there was a facilitator to model the behavior and other group members with whom to practice.

It made me feel like, you know, I can open up, and I’m not I’m not the only one that’s going through mental health issues. It’s a whole great big world of people out there going through symptoms and being well about it and getting on with their lives. (Lynne)

Another participant commented on the feeling of solidarity he experienced with peers in WRAP programming that was helpful both psychologically and practically for problem resolution:
…by helping one another, cuz he or she could be going through a worser thing than you’re going through, and by putting your heads together, you’re working with each other and not against each other. (Joe)

For some people, symptoms of mental illness can encourage isolation and discourage socializing, resulting in poor skills in connecting with others. One participant talked about incarceration reinforcing hypervigilence, further discouraging him from opening up to others. Another participant spoke of difficulty getting along with others because of the strong feelings of anger she experienced:

And I used to be angry a lot, a lot. I wouldn’t let people touch me, you know, or nothing. I wouldn’t, you know. And being with WRAP in a group session, I learned to mingle, you know what I mean? And that helps a lot. That helped a lot, the WRAP did… You know, I give people a chance now. But before, no. I wouldn’t give you no chance. (Whitney)

Once participants felt comfortable opening up to others as well as confident in giving and receiving support, they learned about the strategies that others use to resolve challenges to wellness and added them to their existing “toolbox” of recovery strategies.

It was quite beneficial to me because, like I said, I was able to hear other people’s stories and how they dealt with they illnesses. It allowed me to open up, and talk a little about my own experience with my mental illness. (Larry)

For some people, the experience itself of being able to talk with other people enhanced their ability cope with problems and maximize health.

See, I think that’s part of the—gettin’ people to help you and people to talk to you or people that you need to talk to. Or if you wanna talk about something, you can
get somebody that’s just gonna listen. That’s what I need most of the time. Just listen. Let me get it out. I’m gonna be alright if I can just let it out. So that’s what I try to do. Get somebody that I could talk to and let me talk, so I can get it off.

Then once I get it out, I’m cool. I’m good. (Caleb)

For others, the importance of social support was about hope surrogacy: having someone else believe that recovery was possible – even when they did not yet believe it themselves. Having others express hopefulness helped people to develop their own hope that they could indeed feel better.

Right, and that makes me feel like I can do it. When someone believes that you can do it. And if you doubt yourself, then say, “If they can believe it, I can believe it. I can do it.” (Isaiah)

**Understanding and building hope for recovery.** Once people accepted the presence of struggles and acknowledged their power to effect change in their own lives, they opened up to the possibility of experiencing enhanced wellness. Some participants had heard about recovery before engaging in WRAP, but for most participants, WRAP programming provided their first thorough exposure to recovery and helped them develop a robust understanding of it.

It was um empowering. I felt a sense of responsibility. I felt empowered. I felt that somebody somewhere thought that I was capable of directing and maintaining my own wellness. And it was a very new concept for me because all I knew about recovery concepts before then … was basically marching-- like march here, do this, do that. You know, those kind of tough love concepts. Um and it just was
empowering, and it was just-- it was new. It was different. And it instilled responsibility in me. (Steven)

As participants deepened their understanding of recovery, their knowledge transformed into hope that recovery was possible for them. “I finally believed that it is possible to have a mental health issue and get better and recover and go back to work and be a part of the things that average people do” (Lynne). WRAP provided the forum for people to begin believing in the possibility of recovery, and the people involved in the programming – the facilitators and the other participants – served as the living proof.

*Whitney*: I could talk to my peers, and they may not have the same problem, but they had a problem. You know, and it helped me a lot to know that they had a problem too. Might not have been the same problem, but they have a problem. You know, and like I said, the wellness, I know I could get well. You know, if I just keep on, keep this WRAP group up, I knew I could get well.

*Interviewer*: How did you learn that – that you knew you could get well?

*Whitney*: By [the facilitator] telling us…Recovery, action, you know, you gotta take actions for your own self. You know, and the plan is for you to get yourself back together.

The metaphor of “the journey” was commonly invoked to describe recovery. At the apex of any journey, sometimes referred to as the mountain top experience, the memory of the long struggle to overcome the rocky terrain of the journey temporarily recedes, and a confidence takes shape; at this point, everything seems possible.

But I walked out [of WRAP] two days later like jazzed up. Talking to people. I had a notebook. Yeah remember WRAP? “Here check this out. These are five key
concepts.” And people were like, “Woah woah!” So the program definitely had a profound effect on me on how I was gonna then proceed with my recovery from that point. (Elijah)

The experience can be spiritual for some, touching on universal truths of the human condition.

I think that’s one of the things that make the WRAP work, too, was the principles in the WRAP. Especially hope. They’re universal. Like it don’t matter what religion you practice – hope works the same way for you. It doesn’t matter how old you is. Hope works the same way. So it transcends those barriers. (Steven)

**Snowball effect of group processes, building momentum.** Although the specifics of what people learned based on the curriculum of WRAP seemed important, many participants reported that the group format of WRAP programming was instrumental to its success. Energy built within WRAP groups, engendering the belief that recovery is possible, reinforcing buy-in to the key concepts of the program, and underscoring that people can take control of their personal journeys toward recovery.

A one-on-one doing a WRAP is a good thing. But it’s more difficult, it seems, to really complete that – have the person really drawn in and invested. It’s different when it’s a group because the energy is contagious, right? So the one person becomes interested, and you start finding similarities around the room, and then everyone becomes invested because everyone can see a part of themselves in what’s being shown and talked about. And then you – once you become invested – then you wanna know more. (Elijah)
A parallel process took shape during the focus groups. Participants of one focus group built energy as the focus group went on, sharing with more enthusiasm and articulating a re-commitment to the intentional pursuit of recovery.

Steven: And then every once in a while it just so happens a person like [the focus group moderator] comes by and just refreshes everything and shakes it all up for me. [General agreement: “Yeah.” “Appreciate that!”]

Imani: As we are all sitting here and having these conversations, that is exactly – what is happening is kinda reinvigorating on some level on realigning my focus.

In another focus group, participants provided peer support to a participant who they worried had incomplete strategies to pursue recovery: they encouraged him to find new strategies to deal with challenging emotions and spent time brainstorming on his behalf. On three separate occasions during the two-hour meeting, group members took a break from responding to the moderator’s questions to provide peer support to participants in the group who had emotional reactions to group processes. At the end of the focus group participants exchanged phone numbers with the intention of continuing their incipient relationships to provide peer support to each other in the future.

**External Structure as a Guide for Self-Reflection**

Once participants bought into the program and developed hope in the possibilities for recovery, they turned their attention inward to carefully examine how to realize their vision for recovery. WRAP programming provided structure for participants to think carefully and systematically about themselves to identify strengths, areas for growth, and effective strategies for maintaining and promoting wellness. Participants reported the programming helped them to build insight and self-awareness, “You gotta see what’s
within yourself” (Whitney). Before strategies could be identified, participants had to deepen their awareness of how their bodies signal wellness and decrements to wellness.

Well one of the things I been able to do is practice some norms within myself…We call it self-awareness. But it’s still just identification on how I’m feeling at any moment. Um staying in the moment. Um being aware of when I’m getting tired. Being aware of when I’m overly tired (Steven)

For some, like Steven, the process of looking inward became routine and was directly related to taking personal responsibility for recovery, “The WRAP did help me because I have to look into myself, and I have to help myself. I wasn’t doing’ that before” (Whitney). For others, the process of looking inward was more difficult, and it sometimes took an outside perspective to notice when recovery was at-risk.

There were times when I’d stop taking my medication. I started just using my wellness toolbox to help me. I went months without my medication, not seeing the doctor or anything. My peers realized it that I wasn’t myself and made me get back on the medication. I thought just using my wellness toolbox would help me get through it, ‘cause I came a long way. It’s been two years that I’ve been in recovery. I never thought that I would find support the way I do now, especially after I completed WRAP. I still have the support to guide me through. (Samantha)

In addition to building insight into how one feels and reacts to challenging internal and external stimuli, people were guided through a process of self-reflection to discover effective strategies to deal with challenges.

So every little tangled thing would just trigger me all the way off. You know what I’m saying? And so to learn about my triggers and what I could do and the tools
that I could use to just help me with the triggers that really had overtaken my
life… at that point is when I really embraced WRAP. (Beautiful)

During programming, people were encouraged to consider past strategies that have been
successful in promoting and regaining wellness and to be mindful about using those
strategies more purposefully when emotional challenges arise, “…being aware of your
symptoms, and when your symptoms do occur, you could actually do something about it,
and you have ways of coping with it. It helps me learn ways of coping with my
symptoms” (Ruth).

In addition to building self-awareness, identifying possible solutions, and
implementing identified strategies, participants practiced evaluating the effectiveness of
chosen solutions.

You have to really see if anything that you learned from your WRAP is really
working for you, ‘cause in here, we got plenty of support. It’s when you out there
in them lonely streets is when you might get in a situation and you want to know
how to deal with this and you can’t get nobody on the phone to de-escalate you or
calm you down. You have to find a way to calm yourself down. (Barika)

Participants described how WRAP systematically guided them through the process of
self-reflection to identify effective strategies to resolve challenges and to evaluate the
efficacy of chosen strategies.

I think about the things that we did in WRAP. I try to sit down, calm down…I sit
down and say to myself, “What did you learn? Think to yourself – what can you
do to stay away from other people?” Last night I was having a real hard time…I
was really upset. I said, “I’m gonna go out in the hallway, sit by myself for a
couple minutes.” And everybody comes and says, “Are you all right?” I’m like, “Look. Just let me have time to myself. That’s all I want, is a couple minutes to myself”…At least I calmed down, and I didn’t hit anybody, because that’s what I wanted to do. I didn’t, so that was good. I’d have been 302’ed [involuntarily committed] in a minute. At least I didn’t hit nobody. I went outside, sat outside, got some air, and then I just went to bed. (Sue)

For some people, the process of self-reflection and identification of recovery strategies came naturally, “Yeah, when I feel those triggers acting up I have to take a look at what’s um causing the triggers. And what I can do to uh minimize them” (Strawberry Shortcake). For others, it was more difficult to generalize process-oriented skills outside the confines of the structured programming, and they questioned how to change their plans prospectively as life circumstances evolve and the effectiveness of strategies change. Some identified the need for additional social support while others asked for additional WRAP programming, a more advanced WRAP curriculum, or supplemental programs to augment their development of effective recovery strategies.

I think [WRAP] should be ongoin'. I don't think it should be a end to it. ... [By taking WRAP ongoing] you would grow. Mentally you would grow. Yeah. Plus things might not come up at first. You might be takin' the course and everything'ill be goin' fine. Then all of a sudden after you take the course all these things start goin' wrong with you in your life…You would have to revise your toolbox every so often for the new things that come up. (Brandon)
Findings Informing Quantitative Phase

Participants confirmed during member checks that WRAP provided a framework for people to systematically engage in self-reflection and develop strategies for pursuing recovery. While some felt able to continue engaging in self-reflection and skilled at resolving problems prospectively, others felt they needed WRAP’s structure and group processes to continue to think systematically about how to pursue recovery, how to resolve problems as they emerge, and how to improve strategies for goal attainment.

For some participants, WRAP helped them to appreciate the importance of engaging in self-reflection and mindfully selecting strategies to maintain and promote wellness prospectively. They oriented their lives toward an ongoing process of mindful recovery. As participants identified barriers to recovery, some were able to independently, or with existing social support, find strategies for problem resolution. Others reported more difficulty with resolving problems and sometimes relied on others to notice that problems were present in the first place. In order to understand the extent to which the processes of self-reflection and problem-solving facilitate or hinder advancement of recovery after the completion of WRAP, quantitative data collection was planned to evaluate the relationship between self-reflection, problem-solving, and recovery.
CHAPTER 4: Quantitative Methods

Conceptual Approach and Hypotheses

The quantitative phase was developed to more fully investigate two concepts from the qualitative phase: self-reflection and problem-solving. Neither of these cognitive processes are themselves direct targets for change in WRAP, but both are mentioned in WRAP curriculum and were featured as essential factors in participants’ descriptions of learning and using WRAP.

Self-reflection and insight are related constructs and essential components of self-management of recovery-oriented behavior. Self-reflection refers to the meta-cognitive processes of “inspecting and evaluating one’s own thoughts, feelings, and behavior” while insight refers to a person’s ability to understand those same thoughts, feelings, and behaviors (Roberts & Stark, 2008, p. 1054). Although self-reflection and insight are different constructs, a person cannot have one without the other: a person has to self-reflect in order to develop insight, and a person must have the insight to know that self-reflection is needed. Because the concepts are integrally related, a standardized scale that measures both constructs in two subscales was selected to represent the construct of self-reflection originally used in the hypotheses.

Successful learning and using of an ISM framework requires the ability to metaphorically “step back” and take a look at what one is experiencing (i.e., identify and understand one’s thoughts, feelings, and behaviors). Then, one has to systematically evaluate those thoughts, feelings, and behaviors to know (i.e., understand) if and how they are related. For example, a person who experiences depressed mood must identify the feeling of depression and consider how one’s behavior contributes to it. Those
behavioral contributions are related to the recovery strategies a person must develop and hone through trial and error to advance recovery. Behavioral contributions and associated solutions could be any number of things: engaging in negative self-talk and changing unhelpful thoughts through cognitive restructuring, living a sedentary lifestyle and intervening with exercise, or taking medication inconsistently and adding a memory trick to increase adherence (like using a rubber band to connect one’s toothbrush to the medication bottle). ISM programs provide a framework for people to engage in self-reflection, build insight, and develop effective strategies to pursue recovery.

Resolving barriers to recovery is equally relevant to successful use of ISM strategies, and problem-solving may be directly related to recovery as people learn to resolve barriers and maintain a belief that those problems are solvable. The qualitative findings suggest that participants who engage in self-reflection may develop insight into the barriers they face to attaining recovery goals, but how strongly self-reflection and insight are related to recovery may change based on a person’s ability to solve identified problems. Based on the qualitative findings, it may be that a person’s confidence in problem-solving moderates the relationship between self-reflection / insight and a person’s degree of perceived recovery.

Evaluating the relationship of these three variables may provide further insight into major facilitators and barriers to learning and utilizing WRAP’s framework to pursue recovery. The quantitative research phase was developed to understand how problem-solving and self-reflection / insight are related to recovery by testing three hypotheses. Hypothesis 1: A higher degree of self-reflection (operationalized by a scale that measures self-reflection and insight) will be associated with a higher degree of perceived recovery,
controlling for social support and symptoms. Hypothesis 2: A higher degree of problem-solving confidence will be positively related to a higher degree of perceived recovery, controlling for social support and symptoms. Hypothesis 3: The relationship between self-reflection (measured by self-reflection and insight) and degree of perceived recovery will be moderated by degree of positive problem-solving appraisal (measured by all three subscales of the Problem-Solving Index), controlling for social support and symptoms.

**Data Collection**

Data were collected through an anonymous online survey, using Qualtrics survey platform (Qualtrics, 2017), of adults who self-identified as having experienced a serious mental illness and who had completed WRAP programming within the previous 6-24 months. Recruitment was conducted using a snowball sampling approach. A recruitment and engagement email with the survey link was sent to staff members of community-based agencies primarily in and around Philadelphia, New York City, and New Jersey with an invitation to forward the email to others. Recruitment took place between January and April of 2017 until the final sample of 82 surveys was obtained. There were no exclusion criteria, and the inclusion criteria were as follows:

1. Adults (at least 18-year-old) who self-identified as having experienced serious mental illness
2. Have completed WRAP programming within the previous 6-24 months

The survey began with an informed consent agreement, and respondents were allowed to continue with the survey only after consenting to participate in the research; respondents who declined consent were exited from the survey. At the end of the survey, respondents could choose to enter a mailing address to receive a $10 gift card to Target.
The 72 respondents who chose to receive the gift card were redirected to a new survey in Qualtrics where they entered contact details that were unconnected to their survey responses.

The survey took approximately 20 minutes to complete. It included five standardized measures and eight items generated to collect basic demographic information, including gender, age, and mental health diagnosis. Three additional items were developed and included to describe respondents’ experience with WRAP. The first asked whether or not respondents had created a WRAP plan. The second asked how often respondents read their WRAP plans, with responses ranging from 1 (“Almost never, or not at all”) to 6 (“At least once a day”). The third asked, “How much has WRAP helped your mental health to improve?” with responses ranging from 1 (“Not at all”), to 5 (“A great deal”).

Qualtrics has a feature that mandates responses to each item before a respondent can move to subsequent items. That feature was employed to minimize the problem of missing data, and data were only missing if a person exited the survey before finishing. An a priori decision was made to use surveys in which respondents completed items for at least the first three standardized instruments, representing the dependent and two independent variables: recovery, problem-solving, and self-reflection / insight.

**Survey Inclusion and Missing Data**

A total of 82 respondents completed items for at least the three standardized scales and were included in the analysis; however, 117 people clicked on the link for the survey. Of those, three people declined participation in the study, and nine were ineligible: one for being under 18-years-old, three for not having serious mental illness,
and five for not having completed WRAP within the previous 6-24 months; they were all exited from the survey. Another 15 respondents answered fewer than five items, and no demographic information was available about them. Eight respondents answered more than five items but did not persist in the survey long enough to complete the first three standardized scales; they were excluded from analysis due to having insufficient data to impute missing values for the analysis. For the remaining 82 surveys, only one respondent had missing data; the last 9 items were incomplete on the standardized scale measuring social support, and data were imputed based on the mean value for each item.

**Standardized Instruments.** The survey included five standardized measures, which have all been used previously with adults with serious mental illness. The scales measured perceived recovery, self-reflection and insight, problem-solving, social support, and symptoms.

**Recovery.** Recovery was measured using the Recovery Assessment Scale (RAS) short form, a 24-item Likert-type scale. The original 41-item scale was developed in collaboration with people who had lived experience with mental illness, and the scale had moderate correlations with standardized measures of self-esteem, empowerment, quality of life, and symptoms of mental illness (Corrigan et al., 1999). A factor analysis demonstrated that the scale is made up of five factors, or subdomains, that comprise recovery: personal confidence and hope, willingness to ask for help, goal and success orientation, reliance on others, and no domination by symptoms (Corrigan, Salzer, Ralph, Sangster, & Keck, 2004). Only 24 of the original 41 items loaded onto the five factors (Corrigan et al., 2004). A short form was created from those 24 items that retained the original factor structure, and each subscale had a Cronbach’s alpha higher than .7
(McNaught, Caputi, Oades, & Deane, 2007). The RAS includes items like, “My symptoms interfere less and less with my life” and “I have my own plan for how to stay or become well” (McNaught et al., 2007). In this study, only the total scale score was used, and the Cronbach’s alpha of the scale as a whole was .95, representing excellent internal consistency.

**Self-reflection and insight.** The Self-Reflection and Insight Scale (SRIS) is a 20-item Likert-type scale. The SRIS measures two inter-related constructs, self-reflection and insight, that are thought to be instrumental for the process of intentional and self-directed change (Grant, Franklin, & Langford, 2002). Self-reflection refers to the “inspection and evaluation of one’s thoughts, feelings, and behavior” while insight refers to the clarity of one’s understanding of those same thoughts, feelings, and behaviors (Grant et al., 2002, p. 821). The test-retest reliability of the subscales ranged from .77-.78 (Grant et al., 2002), and Cronbach’s alphas of the subdomains ranged from .83-.87, demonstrating good internal consistency (Roberts & Stark, 2008). The subscales were evaluated against existing instruments to demonstrate discriminant and convergent validity, and the self-reflection subscale was positively correlated with stress and anxiety but not correlated with depression; the insight scale was negatively correlated with depression and anxiety and positively correlated with self-regulation and cognitive flexibility (Grant et al., 2002). The finding that the self-reflection subscale correlated with anxiety and stress does suggest the scale may be erroneously measuring anxious rumination; however, the results of the other validity assessments were consistent with hypothesized relationships with other scales (Grant et al., 2002). The SRIS includes items like, “I rarely spent time in self-reflection” and “I usually know why I feel the way I do”
(Grant et al., 2002). In this study, the SRIS had an overall Cronbach’s alpha of .80 with subscales for self-reflection and insight ranging from .76 to .78, respectively, suggesting acceptable to good internal consistency.

**Problem-solving.** Problem-solving and problem-solving confidence were measured using the Problem-Solving Inventory (PSI). The PSI is a 32-item scale that measures personal appraisal of one’s problem-solving abilities and the way in which a person navigates problems in daily living – either by avoiding the problem or by approaching it directly to attempt a resolution (Heppner, Witty, & Dixon, 2004; Heppner & Peterson, 1982). The PSI has three major subscales: problem-solving confidence, approach-avoidance style, and personal control (Heppner, Witty, & Dixon, 2004; Heppner & Peterson, 1982). A positive problem-solving appraisal (represented by a high total score of the PSI) suggests a high degree of problem-solving confidence, a style of confronting problems directly rather than avoiding them, and a belief that one has control of both emotions and behaviors while solving one’s problems. The PSI has a Cronbach’s alpha of .9 for the scale as a whole and alphas ranging from .72-.85 for its subscales (Heppner & Petersen, 1982). The scale includes items such as “I am usually able to think up creative and effective alternatives to solve a problem” and “Many problems I face are too complex for me to solve” (Heppner & Peterson, 1982). In this study, Cronbach’s alpha of the scale as a whole was .90, with subscales ranging from acceptable to good: .84 for problem-solving confidence, .78 for approach-avoidance style, and .81 for personal control.

**Social support.** Social support was measured with the Medical Outcomes Study Social Support Survey (MOS), a 19- item Likert-type scale. The MOS focuses
measurement on the degree of functional aspects of a person’s social support, meaning the functions that relationships serve in a person’s life (Sherbourne & Stewart, 1991). A factor analysis demonstrated the scale contains four major subscales mapping on to frequently used constructs of the functions of social support: tangible support, affectionate support, emotional and informational support, and positive social interactions (Sherbourne & Stewart, 1991). The Cronbach's alphas for all subscales range from .72-.87 (Sherbourne & Stewart, 1991). The MOS asks question about often various kinds of support are available, such as, “Someone to help if you were confined to bed” and “Someone to give you good advice about a crisis” (Sherbourne & Stewart, 1991). In this study, only the total scale score was used, and the Cronbach’s alpha was .97, representing excellent internal consistency.

**Symptoms.** The Modified Colorado Symptom Index (MCSI) is a 14-item self-report index measuring the presence and severity of symptoms related to mental illness. The MSCI was shown to have high content validity when compared to established instruments such as the Brief Symptom Inventory and the Brief Psychiatric Rating Scale, and its construct validity was demonstrated by comparing it to instruments measuring related constructs such as the Brief Symptom Inventory, the Treatment Services Needed and Received Scale, the Severity of Psychiatric Illness Scale, the Rosenberg Self-Esteem Scale, and the Life Satisfaction Index (Conrad et al., 2001). The MCSI also has high internal consistency with Cronbach's alpha scores ranging from .87-.92 (Conrad et al., 2001). The scale contains items such as, “In the past month, how often have you felt depressed” and “In the past month, how often did you hear voices, or hear or see things that other people didn’t think were there?” (Conrad et al., 2001). In this study,
Cronbach’s alpha was .88, demonstrating very good internal consistency.

**Data Analysis:**

Scales were recoded so that the ideal responses were given the highest number (i.e., each 6-point Likert-type item on the PSI measuring the highest appraisal of problem-solving abilities was coded as a six). Quantitative scores were summed for each measure and tested using regression analyses.

**Hypothesis 1.** The correlation between recovery and self-reflection / insight was analyzed with linear regression by building two models. The first model included only recovery and self-reflection / insight, and the second model added in control variables of symptoms and social support. Analyses were completed using the total score for the RAS as the dependent variable, the total score for the SRIS as the independent variable, and the total score for MCSI (symptoms) and MOS (social support) as control variables.

**Hypothesis 2.** The correlation between problem-solving confidence and degree of perceived recovery was analyzed with linear regression by building two models. The first model included only recovery and problem-solving confidence, and the second model added in control variables of symptoms and social support. Analyses were conducted using the total score for the RAS as the dependent variable, the total score for the problem-solving confidence subscale of the PSI as the independent variable, and the total scores on the MCSI and MOS as control variables.

**Hypothesis 3.** The hypothesized moderating effect of problem-solving on the relationship between recovery and self-reflection / insight was assessed using multiple regression with an interaction term. A regression model was developed using recovery as the independent variable, problem-solving and self-reflection / insight as dependent
variables, symptoms and social support as control variables, and an interaction term using problem-solving and self-reflection / insight. The analysis was conducted using the total score from each of the scales: the RAS, SRIS, PSI, MCSI, and MOS. The interaction term was created using the total score of the SRIS and the total score of the PSI.

Because of the findings from Hypothesis 2 (see next chapter), an additional model was created to test a possible moderating effect of problem-solving confidence on the relationship between recovery and self-reflection and insight. The only difference from the model described in the previous paragraph is that this model used problem-solving confidence rather than the more general problem-solving construct. The model used total scores for the RAS, SRIS, MCSI, and MOS; but the total score of the problem-solving confidence subscale of the PSI was used instead of the total score of the PSI. The interaction term was also created using the total score from the SRIS and the problem-solving confidence subscale of the PSI.

Before conducting the analysis, diagnostic tests were run to assess for the presence of multicollinearity. First, a correlation matrix was constructed which included the summative scores of each scale as well as scores for the three subscales for self-reflection, insight, and problem-solving confidence (see Table 2). Each subscale was expected to correlate at least moderately with the summative score for the scale to which it belongs. No hypothesis included both a scale’s summative score and one or more of its subscale scores, thus multicollinearity between a scale and its subscales was not a concern.

The next step in assessing for the presence of multicollinearity was to calculate variance inflation factors (VIF). Multicollinearity becomes a concern when the VIF
between variables exceeds 2.5 and can be calculated with the formula 1/(1-R^2), where R^2 refers to the linear relationship between the variables under investigation (Allison, 2012). The highest correlation between variables was for the summative scores of SRIS and PSI, and the VIF was 2.27; all remaining relationships between variables had smaller VIFs, suggesting that multicollinearity was not a concern for the analysis of this research project.

Table 2

Correlation Matrix of Scales

<table>
<thead>
<tr>
<th></th>
<th>RSF</th>
<th>SRIS</th>
<th>SRIS-SR</th>
<th>SRIS-I</th>
<th>PSI</th>
<th>PSI-PSC</th>
<th>MCSI</th>
<th>MOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSF</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRIS</td>
<td>0.27</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRIS-SR</td>
<td>0.18</td>
<td>0.85</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRIS-I</td>
<td>0.27</td>
<td>0.79</td>
<td>0.35</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSI</td>
<td>0.39</td>
<td>0.75</td>
<td>0.50</td>
<td>0.74</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSI-PSC</td>
<td>0.55</td>
<td>0.60</td>
<td>0.37</td>
<td>0.64</td>
<td>0.87</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCSI</td>
<td>0.41</td>
<td>0.26</td>
<td>0.06</td>
<td>0.39</td>
<td>0.50</td>
<td>0.61</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MOS</td>
<td>0.55</td>
<td>0.23</td>
<td>0.18</td>
<td>0.21</td>
<td>0.37</td>
<td>0.43</td>
<td>0.30</td>
<td>1</td>
</tr>
</tbody>
</table>

^A^Self-reflection subscale of SRIS  
^B^Insight subscale of SRIS  
^C^Problem-solving confidence subscale of PSI

**Sample size estimation.** Determining an appropriate sample size requires an estimation of the likely effect sizes and decisions about the level of statistical significance. Rothman (1990) argues against using Bonferroni adjustments for exploratory studies to minimize Type II errors and avoid overlooking important
relationships. Due to the exploratory nature of the study, no Bonferroni adjustments were made for multiple comparisons in the analysis, and alpha levels were set at .05. Effect sizes were estimated by reviewing extant literature that used the same scales as this research project (i.e., PSI and SRIS). A review of problem-solving literature suggested that problem-solving appraisal, measured by the PSI, had correlations to depression ranging from .30 to .60 and accounted for between 9% and 36% of the variance of depression scores (Hepner et al., 2004). The SRIS paints a more complicated picture of likely effect size with the self-reflection subscale sometimes showing a negative correlation with well-being but positive correlation with personal growth (Harrington & Loffredo, 2011); the SRSI subscale for insight is correlated with a small to moderate effect size for wellbeing (Harrington & Loffredo, 2011) and happiness (Lyke, 2009) and is negatively correlated with psychological distress (Lyke, 2009). Calculations for this project used an effect size in between those typically seen for PSI and SRIS scales and estimated a moderate effect size of .3. To obtain power of .8, a sample size of 85 was needed for a two-tailed correlational analysis with alpha of .05. This was minimally met with a total sample size of 82.
Chapter 5: Quantitative Results

This chapter presents results from the quantitative analysis used to test the three hypotheses. Because of the exploratory nature of the study, an additional post hoc analysis was conducted to evaluate the possibility that social support moderated the relationship between problem-solving confidence and degree of perceived recovery based on results from the original plan for analysis.

Respondents

As Table 3 demonstrates, the majority of respondents were women (68.2%) with about equal proportions of Blacks (43.9%) and Whites (40.2%). Respondents were generally in their mid forties, and more than half were certified peer specialists (CPS). CPSs are adults with personal experience with mental illness in advanced states of recovery who have been trained and certified to offer mental health supports to others with mental health challenges.

The most common diagnosis was Major Depressive Disorder (32.9%), followed by Bipolar Disorder (28%) and either Schizophrenia or Schizoaffective Disorders (19.5%). The vast majority of respondents had a written plan (97.6%), and they reported reading it somewhere between once per month and once per week (a mean response of 3.7 on a 6-point scale). Finally, on a 5-point scale about how much WRAP helped to improve respondents’ mental health, they responded with a mean of 2.1, suggesting it helped between a little and a moderate amount (closer to “a little”).
Table 3

Demographics for Survey Respondents

<table>
<thead>
<tr>
<th></th>
<th>Number / Min-Max</th>
<th>Percent / Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>25</td>
<td>30.5</td>
</tr>
<tr>
<td>Women</td>
<td>56</td>
<td>68.2</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>33</td>
<td>40.2</td>
</tr>
<tr>
<td>Black/AA</td>
<td>36</td>
<td>43.9</td>
</tr>
<tr>
<td>African</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Latino/a / Hispanic</td>
<td>3</td>
<td>3.7</td>
</tr>
<tr>
<td>Asian /PI</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Native</td>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>Multiracial</td>
<td>5</td>
<td>6.1</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>23-71</td>
<td>46.8 (11.0)</td>
</tr>
<tr>
<td><strong>Diagnosis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>12</td>
<td>14.6</td>
</tr>
<tr>
<td>Schizoaffective</td>
<td>4</td>
<td>4.9</td>
</tr>
<tr>
<td>Bipolar</td>
<td>23</td>
<td>28.0</td>
</tr>
<tr>
<td>Major Depression</td>
<td>27</td>
<td>32.9</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>19.5</td>
</tr>
<tr>
<td><strong>Certified Peer Specialist?</strong></td>
<td>Yes=45</td>
<td>Yes=54.9%</td>
</tr>
<tr>
<td><strong>Have a written plan?</strong></td>
<td>Yes=80</td>
<td>Yes=97.6%</td>
</tr>
<tr>
<td>Frequency of Reading Plan, 6-point scale: At least once a day (1) – Almost never, or not at all (6)</td>
<td>1-6</td>
<td>3.7 (1.6)</td>
</tr>
<tr>
<td>How helpful was WRAP, 5-point scale: A great deal (1) – Not at all (5)</td>
<td>1-5</td>
<td>2.1 (1.2)</td>
</tr>
</tbody>
</table>

**Testing Hypotheses**

The PSI and SRIS had moderately high correlation (.75 p<.0001 but with VIF of only 2.27), and by design they were initially evaluated separately in analyses to avoid a type II error, missing a potentially significant relationship. As shown in Table 4, all of the scales demonstrated variability in the data collected. For instance, scores for the
dependent variable, recovery, ranged from 26 – 120 with a mean score of 98.6 and a standard deviation of 16.3. Scores for the measure with the smallest variance (SRIS) ranged from 48 – 91 with a mean of 74.3 and a standard deviation of 10, providing no indication of restricted variance.

**Hypothesis 1.** Hypothesis 1 was tested using linear regression (see Table 4). Model 1 included degree of perceived recovery (RAS) as the dependent variable and self-reflection and insight (SRIS) as the independent variable. Model 1 demonstrated that RAS and SRIS were positively correlated ($R^2=.07$, $p=.01$).

Although the original hypothesis identified only self-reflection, the decision was made to include both self-reflection and insight based on the conceptual argument that they are interrelated and interdependent concepts (see chapter 4). Before moving to the remaining analyses, an additional analysis was conducted to evaluate the relative impacts of the subscales of self-reflection and insight on the degree of perceived recovery. The SRSI subscales were separated and used to predict degree of perceived recovery, and insight remained significant ($p=.01$, with $R^2=.07$), while self-reflection did not ($p=.10$). The remainder of analyses continued to use only the total score for the SRIS rather than separating subscales.

Model 2 added control variables of social support (MOS) and symptoms (MCSI). In this model, the SRIS total score became non-significant ($p=.29$), although the model was significant ($p<.0001$) with an adjusted $R^2$ of .36. To examine what may have happened, SRIS was removed from the model, and no significant decrease in adjusted $R^2$ was observed, suggesting SRIS did not add to the model; social support and symptoms alone were significant predictors of recovery. Hypothesis one, therefore, was not robustly
supported, and there is limited but insufficient support to suggest that self-reflection and insight predict degree of perceived recovery for WRAP users.

Table 4

Models 1 and 2: Linear Regressions of Recovery on Self-Reflection and Insight

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min-Max</th>
<th>Mean (SD)</th>
<th>Model 1&lt;sup&gt;A&lt;/sup&gt;</th>
<th>Model 2&lt;sup&gt;B&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAS</td>
<td>26-120</td>
<td>98.6 (16.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRIS</td>
<td>48-91</td>
<td>74.3 (10.0)</td>
<td>.44 (.18) (.014)*</td>
<td>.16 (.15) .285</td>
</tr>
<tr>
<td>MCSI</td>
<td>26-70</td>
<td>53.9 (10.3)</td>
<td></td>
<td>.40 (.15) .010</td>
</tr>
<tr>
<td>MOS</td>
<td>19-95</td>
<td>72.6 (18.5)</td>
<td>.40 (.08) &lt;.001***</td>
<td></td>
</tr>
</tbody>
</table>

<sup>A</sup>Model 1: R-squared: .07 p=.014
<sup>B</sup>Model 2: Adjusted R-squared .36 p<.0001

**Hypothesis 2.** For hypothesis 2, linear regression was used to estimate the relationship between degree of perceived recovery and problem-solving confidence (see Table 5), using a subscale from the PSI. Model 3 includes only recovery and problems-solving confidence, and it shows that problem-solving confidence is positively correlated with recovery, explaining 30% of the variance (p<.001). Model 4 adds symptoms and social support as control variables. In this model, problem-solving confidence remained significant as predicted (p=.006), and the model explained more than 40% of the variance in perceived recovery with an adjusted $R^2$ of .41. Hypothesis 2 was supported, with results indicating that problem-solving confidence predicts degree of perceived recovery, controlling for social support and symptoms.
Table 5

Models 3 and 4: Linear Regression of Recovery on Problem-Solving Confidence

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min-Max</th>
<th>Mean (SD)</th>
<th>Model 3^A</th>
<th>Model 4^B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>B (SE)</td>
<td>p-value</td>
</tr>
<tr>
<td>Problem-Solving Confidence</td>
<td>17-66</td>
<td>49.6 (8.9)</td>
<td>1.01 (.17)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>MCSI</td>
<td>26-70</td>
<td>53.9 (10.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MOS</td>
<td>19-95</td>
<td>72.6 (18.5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^A Model 3: R-squared: .30 p<.0001
^B Model 4: Adjusted R-squared .41 p<.0001

**Hypothesis 3.** To test the moderation effect in hypothesis 3, an interaction term (between degree of positive problem-solving appraisal and self-reflection / insight) was added to a regression equation that included degree of perceived recovery as the dependent variable, self-reflection / insight and degree of positive problem-solving appraisal as independent variables, and symptoms and social support as control variables (see Table 6). In Model 5, degree of positive problem-solving appraisal was represented by the total score of the PSI. In Model 6, problem-solving confidence was substituted for positive problem-solving appraisal. Model 6 explained a larger proportion of the variance in perceived recovery compared to Model 5. Even though Model 6 itself retained significance (p<.0001), the adjusted R^2^ fell slightly when the interaction term was added to the regression equation (from .41 to .40), suggesting the model was not improved by the addition of the interaction term. In addition, the only variable that retained significance in Model 6 was social support (p<.001). Hypothesis 3 was not supported by the data.
Table 6

Models 5 and 6: Linear Regression of Recovery on Problem-Solving and Self-Reflection and Insight: Moderation Model with an Interaction Term

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min-Max</th>
<th>Mean (SD)</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>B (SE)</td>
<td>p-value</td>
<td>B (SE)</td>
<td>p-value</td>
</tr>
<tr>
<td>SRIS</td>
<td>48-91</td>
<td>74.3 (10.0)</td>
<td>.60 (.78)</td>
<td>.442</td>
<td>.54 (.77)</td>
<td>.487</td>
</tr>
<tr>
<td>PSI</td>
<td>73-187</td>
<td>133.9 (23.3)</td>
<td>.35 (.45)</td>
<td>.442</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-Solving Confidence Subscale</td>
<td>17-66</td>
<td>49.6 (8.9)</td>
<td></td>
<td></td>
<td>1.63 (1.16)</td>
<td>.163</td>
</tr>
<tr>
<td>MCSI</td>
<td>26-70</td>
<td>53.9 (10.3)</td>
<td>.36 (.17)</td>
<td>.036*</td>
<td>.14 (.18)</td>
<td>.436</td>
</tr>
<tr>
<td>MOS</td>
<td>19-95</td>
<td>72.6 (18.5)</td>
<td>.38 (.09)</td>
<td>&lt;.001***</td>
<td>.33 (.08)</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>SRIS &amp; PSI Interaction</td>
<td>- .004 (.006)</td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRIS &amp; Problem-Solving Confidence Interaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.01 (.02)</td>
<td>.399</td>
</tr>
</tbody>
</table>

*Model 5: Adjusted R-squared .35 p<.0001
b*Model 6: Adjusted R-squared .40 p<.0001

Effect Size

Social support and problem-solving confidence accounted for much of the variance in the models whenever they were included. To understand the relative contribution of social support and problem-solving confidence to degree of perceived recovery, the most efficient and explanatory model (Model 4) was used, and the variables were standardized to generate beta coefficients (see Table 7). The regression was conducted again, using RAS as the dependent variable and three independent variables:
MOS, MCSI, and the PSI problem-solving confidence subscale. Each variable was standardized by subtracting the mean from the total score and subsequently dividing that difference by the standard deviation: (variable-mean)/SD. The formula ensures all variables have a mean of zero and a standard deviation of one. The beta coefficients of the independent variables indicate relative effect sizes on the dependent variable. The model accounted for more than 40% of the variance in recovery (adjusted R²=.41, p<.0001), just as it did before standardizing the variables. Problem solving confidence had a beta coefficient of .32 and social support had a beta coefficient of .38, suggesting moderate effect sizes. MCSI score was not statistically significant, and dropping MSCI (see Model 7 in Table 6) had a negligible effect (adjusted R²=.41, p<.0001), suggesting the variable did not add to the model. In Model 7, the beta coefficients for problem-solving confidence and social support increased to .38 and .39, respectively.

Table 7

Models 4 and 7: Linear Regression of Recovery on Problem-Solving, Social Support, and Symptoms Using Standardized Scores

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 4A Beta Coefficient (SE)</th>
<th>p-value</th>
<th>Model 7B Beta Coefficient (SE)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-Solving Confidence Subscale</td>
<td>0.32 (.11)</td>
<td>.006**</td>
<td>.38 (.10) ***</td>
<td>.001***</td>
</tr>
<tr>
<td>MOS</td>
<td>.38 (.10)</td>
<td>&lt;.001***</td>
<td>.39 (.10) ***</td>
<td>&lt;.001***</td>
</tr>
<tr>
<td>MCSI</td>
<td>.10 (.11)</td>
<td>.354</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

^A Model 5: Adjusted R-squared .41 p<.0001

^B Model 6: Adjusted R-squared .41 p<.0001

Post-Hoc Analysis of Social Support as a Moderator

In all hypotheses, social support was treated as a control variable to isolate the effects of the identified independent variables; however, because social support
maintained an influential role in every model in which it was included, a post hoc analysis was conducted to explore the possibility that social support moderated the relationship between degree of perceived recovery and problem-solving confidence. The MOS and the PSI subscale for problem-solving confidence are moderately positively correlated (.43 p<.0001). Model 7 was used because it was the most parsimonious and explained the most variance in degree of perceived recovery. An interaction term between social support and problem-solving confidence was included in the new model. The interaction term was not significant, and the adjusted R\(^2\) fell slightly (from .41 to .40), suggesting the model was not improved with the interaction term. No support was found for social support as a moderator of the relationship between degree of perceived recovery and problem-solving confidence.
Chapter 6: Integrated Discussion and Conclusion

Mechanics of Using a WRAP Plan

WRAP programming culminates in an individualized action plan for participants to pursue recovery. Consistent with WRAP’s recommendations, participants of this study reported that they created a master plan during their programming. The plans included routine daily activities that promote wellness – things like drinking juice, opening shades, taking a shower, calling family members. The activities were easily accessible and served to promote a sturdy baseline of wellness. WRAP plans also included reactive or contingency plans, referred to as strategies stored in a “wellness toolbox,” for use when they encounter challenging emotions or difficult situations in their environment. Only a small minority reported having crisis or post-crisis plans.

Although WRAP guidebooks recommend reading written plans everyday until its contents are memorized (Copeland, 2010), a minority of participants actually followed that recommendation. Participants who reported maintaining and physically reviewing written plans also disclosed using writing as a strategy to maintain organization in their lives or to accommodate different cognitive needs related to memory and retention of learning. The majority of participants reported they used their WRAP plans by thinking about the strategies their plans contained, such as tools from their wellness toolbox, and using them as needed. Thus the mechanics of using a WRAP plan primarily involved mentally reflecting on the learning that took place during WRAP programming and implementing recovery strategies identified during the program.
External Structure as a Guide for Self-Reflection

For the majority of participants, the important component of the written WRAP plan seems to have been the process of writing it. As participants engaged in WRAP programming, they were guided through a process of self-reflection. During these guided reflections, they gained insight into personal signs of wellness and decrements of wellness as well as insight into personalized, effective strategies for maintaining, restoring, and promoting wellness. Thus, the process of writing plans facilitated systematic self-reflection on the identification of recovery strategies and assessment of the degree to which those strategies were effective at preserving and advancing recovery. For the majority of participants, the benefits of WRAP lay not in the mechanics of physically reviewing and following a plan, but in the process of learning how to be aware of wellness related needs and matching effective strategies to those needs – key goals of self-management programs (Petros & Solomon, 2015; Clark et al., 1991).

Some of the learning about wellness needs, matching strategies, and evaluating the effectiveness of strategies appears to be explained by social cognitive theory – particularly through observational learning and social comparison theory constitutive of peer support and peer-delivered services (Solomon, 2004; Festinger, 1954). Participants observed facilitators using WRAP’s framework and were motivated to learn and use it to achieve commensurate levels of success – especially if they related to the facilitators through a sense of shared experience associated with mental health challenges. As the program progressed, participants gained inspiration from fellow WRAP participants, learning from and helping one-another. Participants developed a shared belief in the efficacy of using WRAP’s framework (outcome expectations), confidence in their own
ability to advance recovery (self-efficacy), and support from other members of the group (environmental determinants through positive social support). The applicability of SCT to explain the mechanics of self-management programs has been identified in other reviews, especially in the field of somatic health (Gallant, 2003; Clark et al., 1991).

Utilizing WRAP’s framework requires practice in daily life through the process of self-regulation, another component of social cognitive theory, which is consistent with extant research on self-management programs (Petros & Solomon; McAlister et al., 2008; Clark et al., 1991). Participants described engaging in all aspects of self-regulation, including self-reflection and observation, setting goals, reaching out for social support, and evaluating the effectiveness of their performance. Those processes were reinforced by the material presented in WRAP programming as well as by the other members in the group as they collaborated, encouraged personal responsibility, and praised each other’s successful efforts at implementing and evaluating recovery strategies. In this way, the small group format helped to meet psychological needs for relatedness, autonomy, and competence associated with self-determination theory, and as predicted by SDT (Ryan & Deci, 2015; 2000), motivation increased for engaging in health behaviors consistent with WRAP’s framework for pursuing recovery. With an environment supportive of the processes of self-management, participants found they began to flourish.

Qualitative findings suggest that self-reflection and insight were major facilitators of successful implementation of WRAP’s self-management framework; however, quantitative analysis of hypothesis one suggests a more complicated interpretation. By themselves, self-reflection and insight predicted recovery outcomes, but after controlling for social support and symptoms, the relationship became non-significant. Perhaps the
direct effects of self-reflection and insight diminish when adding in the control variables because a social context is vital to optimal reflection and building of insight. A number of participants reported that WRAP programming (particularly the facilitators and other participants) helped them to believe in the importance of self-reflection and encouraged them to engage in self-reflection more often. Participants also described the importance of developing insight about themselves and articulated how that insight led to discovering effective recovery strategies that were instrumental to their recovery. However, the process of developing insight generally took place within a social context where they could learn from others and integrate feedback from the other group participants. The importance of the social context may also explain why hypothesis three was not supported, given that it only accounted for social support as a control variable.

Additionally, the quantitative measures of self-reflection and insight were administered only after participants completed WRAP, and it may be that participants’ post-programming scores were inflated, causing a ceiling effect to suppress the actual magnitude of the relationship between degree of perceived recovery and self-reflection and insight. Furthermore, if self-reflection and insight are important predictors of recovery, it may still be that for post-WRAP participants, the bigger influence is having social supporters to improve the quality and depth of self-reflection and the resulting insight; social supporters may provide alternative perspectives, provide necessary feedback, and inspire further persistence in self-reflection as suggested by social comparison and social cognitive theories (McAlister et al., 2008; Solomon, 2004; Festinger, 1954).
Finally, given that the insight subscale explained more of the variance in degree of perceived recovery than the self-reflection subscale, it may be that insight is the more efficient predictor of recovery outcomes than self-reflection; this comports with other research that suggests insight is a major predictor of psychological well-being while self-reflection may be associated with anxious rumination and unrelated (or negatively related) to psychological well-being (Harrington & Loffredo, 2011; Sylvia & Phillips, 2011; Lyke, 2009; Grant, 2003). Given the importance of self-reflection and insight in the qualitative findings, further research is warranted. Based on the clear importance of the social context as seen in the qualitative and quantitative findings, it may also be that the optimal strategy for WRAP programming is in a group setting rather than independently or one-on-one with a facilitator.

**Reasons for Using WRAP’s Framework**

The way in which people use WRAP’s framework and their personal WRAP plans in their daily lives also seems to be related to the perceived scope of WRAP’s benefits. Some felt that WRAP’s primary purpose was to help them maintain a basic level of wellness and recovery, preventing relapse and hospitalization. Those participants were likely to use daily maintenance strategies and recovery tools from their wellness toolbox as a reactive measure to protect against threats to wellness. Others felt that WRAP could help them reach life goals beyond maintaining a basic threshold of wellness. They used WRAP’s framework to identify strategies that would proactively help them attain goals such as work, education, improved relationships, and smoking cessation. A few people who articulated future-oriented goals also reported revising their WRAP plans prospectively or creating new plans to help with goal attainment. Given that there may be
a pervasive discrepancy in how participants view the main purpose of WRAP, facilitators and participants may benefit from beginning WRAP programming by developing a shared understanding of the goals for using WRAP. However, the basic strategies for goal attainment and problem-solving undergird WRAP’s framework regardless of the purpose for which participants use WRAP, and strengthening those skills may help both groups of participants.

**Problem-Solving and Social Support**

The biggest barrier to learning and using WRAP’s framework appears to be the process of generalizing the framework outside of the programming and applying it prospectively as life circumstances change. For people using WRAP primarily to maintain and preserve a basic level of wellness, a major challenge was discerning what to do to resolve new problems that arise that threaten recovery. For people using WRAP to proactively attain other goals, a major challenge was developing new strategies for goal attainment and resolving barriers to implementing identified strategies. These findings suggest the need for additional support specifically focused on the metacognitive process of problem-solving. Problem solving refers to more than learning or utilizing one particular coping strategy; it describes the general process of “understanding, appraising, and adapting” to stressors, tailoring strategies to specific contexts (Gellis & Nezu, 2011, p. 399).

Regardless of the purpose for using WRAP – maintaining recovery or advancing other goals – participants broadly identified a need for more support solving problems and attaining goals. They also reported benefitting from helping others resolve barriers to
recovery goals. Ultimately, an additive relationship between problem-solving and social support emerged in both phases of analysis.

Participants reported that during WRAP programming, they learned that reaching out to others for help and support was beneficial; moreover, they developed skills in how to help one another and how to ask for help without diminishing a sense of autonomy and competence. Many participants reported that their primary social supports were other people in their WRAP group or other people who had attended WRAP at a different time within the same mental health organization. They engaged in a social problem-solving process, beginning by discussing common problems and identifying solutions that had worked for others in the past. Such collaboration served to resolve barriers that many shared while simultaneously building confidence and skill in the process of problem-solving. In this way, qualitative findings demonstrate how social support and problem-solving are interdependent and directly related to learning and using WRAP’s framework for pursuing recovery: as people learn from and teach each other, the principles and processes of self-management and problem-solving are reinforced.

Some participants, however, reported differential availability of social support and varied success in solving problems. To address these concerns, participants identified a number of solutions they would like to access, including ongoing WRAP or additional and similarly structured programming. Such solutions provide ready-made social support constitutive of the group processes of programming as well as ongoing structure for developing strategies to resolve new barriers to recovery that emerge over time. In other words, preferred solutions involved social support and structured problem-solving.
The quantitative phase further investigated the relationship between problem-solving confidence and degree of perceived recovery – hypothesis two – in the context of varying social support. Quantitative analysis revealed a positive relationship between degree of perceived recovery and both problem-solving confidence and social support. Both variables had moderate effect sizes, although no evidence was found supporting a moderating effect, possibly because a larger sample size may have been needed to investigate moderators. The model that included only problem-solving confidence and social support was the most parsimonious and accounted for more than 40% of the variance in recovery scores.

It is unsurprising that problem-solving confidence emerged as a primary predictor of recovery. Problem-solving confidence is a metacognitive construct related to self-efficacy (Sahin, Sahin, & Heppner, 1993). It refers to trust and self-assurance in one’s ability to effectively cope with problems (i.e., “I am usually able to think up creative and effective alternatives to solve a problem”) (Heppner, Witty, & Dixon, 2004; Heppner & Petersen, 1982), such as mental health challenges and the psychosocial ramifications of illness. The construct overlaps conceptually with the pathways dimension of hope: confidence in one’s ability to identify strategies for goal attainment. It relates to self-efficacy beliefs about developing effective strategies to achieve what one wants, both by resolving barriers (Gellis & Nezu, 2011) and by achieving goals (Snyder et al., 1991). Extant research suggests that WRAP may not enhance the pathways dimension of hope (Cook et al., 2012b), which parallels findings in the qualitative phase of research that a major barrier to recovery is difficulty in identifying effective solutions to resolve barriers to goal attainment. In fact, it is when participants had difficulty finding effective
solutions that they turned to social supporters for help to find solutions, underscoring the symbiosis of social support and problem-solving.

Ultimately both phases of research confirm the relative importance of social support and problem-solving confidence to effectively learn and implement WRAP’s self-management framework. Although there was insufficient evidence to suggest a moderating relationship, there is ample evidence of the importance of both variables. Participants identified the need for additional support to identify and hone recovery strategies prospectively to accommodate changing life circumstances, problems, and goals. Solutions may include strategies to bolster social support and problem-solving confidence, likely by addressing social problem-solving skills in group settings. In this way, the magnitude of WRAP’s benefits may increase and extend to a broader audience with varying needs.

**Normalizing Struggles and Enhancing Recovery**

It is tempting to reduce interventions to specific skills and processes that can be manualized and investigated systematically. However, participants were clear that something more than skills-building was necessary for recovery to take shape. As I went through WRAP programming myself, I observed participants become progressively hopeful about recovery, and during focus groups, a similar energy grew as people talked about WRAP and the manifestation of recovery in their lives. Participants affirmed that the spirit of recovery is like a snowball rolling down a hill, getting bigger as it gains momentum, and participants described how that spirit grew in themselves and how they changed internally as WRAP programming progressed. For these participants, recovery
began to take shape before new skills were ever implemented. Deegan (1992) described how recovery is not just about what one does, but it is about how one sees oneself:

Thus, part of the work that faces us in our journey toward independent living is to learn to identify, challenge, and change mentalism and the false charity that robs us of our right to failure and the dignity of risk. We are learning that we are not fragile cripples that need to be protected. We are discovering our pride and our dignity. We are discovering that we are a strong people with fiercely tenacious spirits. (p. 15)

Through WRAP programming and general group processes, participants found a sense of normalization about the experience of mental health challenges. They felt free to acknowledge difficulties and reach out to others to find solutions. They developed a deeper, personal understanding of recovery and gained hope in the possibility of recovery. Major components of recovery include hope, the development of a positive identity, and empowerment (Leamy et al., 2011), and all three of those internal shifts were part of participants’ experiences with WRAP programming – supported by the curriculum’s positive messaging, facilitators’ personal disclosures, and the positive social processes of the group. Thus, while skills were identified as an important component of WRAP, one of the biggest impacts of the program appears to be the internal shift that happened for participants as they changed their understanding of and hope for recovery. This finding is compatible with self-determination theory, which suggests that people are inherently equipped with a drive toward growth and wellness, and recovery may naturally take shape when psychological needs are met for competence, relatedness, and autonomy (Deci & Ryan, 2015; Ryan, 2009; Deci & Ryan, 2008; Ryan, Huta, & Deci, 2006; Ryan...
& Deci, 2000) – all of which were reinforced for participants during WRAP programming.

**Strengths and Limitations of the Research**

This was an exploratory research project, and Bonferroni corrections were not used in the quantitative analysis. The significance levels for the main quantitative findings were robust enough to retain significance with Bonferroni corrections; however, further research is needed to confirm the findings presented here. Additionally, the sample size was just under the threshold needed for correlational analysis, and it is possible that a larger sample size would change the results, particularly for the moderation analyses. Further research is needed to rigorously evaluate social support as a possible moderator of the relationship between degree of perceived recovery and problem-solving confidence.

Another limitation lies in the omission of a time variable. In order to evaluate the impact of WRAP’s framework on the degree of perceived recovery, some time must pass after the program ends to allow participants an opportunity to implement what they learned. After too much time, participants may forget what they learned or cease implementing the strategies they developed, causing the effects to wane. This research did not account for the influence of time on the degree of perceived recovery, and respondents were not asked to report the specific dates they attended WRAP programming. Future research should include time as an independent variable to account for variation in WRAP’s impact as time progresses.

Finally, non-probability sampling was used for the quantitative research phase, and about half of the people in the sample were Certified Peer Specialists. CPSs may
have unique qualities compared to other people with serious mental illness, and the results of the quantitative phase may not generalize to others with serious mental illness. Furthermore, while the sample for the qualitative phase was disproportionately Black and people with schizophrenia, the quantitative sample had a larger representation of Whites and people with major depressive disorder. Given that the quantitative phase was developed to further investigate qualitative findings, it may be that the synthesis of the mixed methods results was impacted in unknown ways by the shift in demographics for the quantitative sample.

A strength of the research is that all 10 participants of individual interviews participated in member checks. The process of member checks involved not only evaluation of my analysis of each person’s individual interview, but also an evaluation of findings from the entire data corpus of qualitative data. All participants provided some degree of clarification or provided alternative interpretations until we developed a shared understanding of the findings. The presence of critical feedback provided an indication that participants did not merely acquiesce to my presumed authority and were not unduly affected by social desirability bias or reactivity to the research. On the contrary, most of the participants thanked me for the opportunity to participate and provide feedback about service needs, and one person raised his arms in triumph after his member check, saying, “I did it!” out of pride for his contribution to research. It seems more likely that participants felt personal responsibility to ensure the research was resonant and trustworthy.

Another strength of the research project is the mixed methods design wherein findings about problem-solving could be contextualized with qualitative data and
hypotheses could be tested using quantitative data. The language of problem-solving may seem antithetical to recovery, which tends to focus on strengths rather than pathology. Given that participants talked about problems in the context of resolving them and attaining goals, this research demonstrates how problem-solving can be compatible with a recovery-orientation and with an ISM framework. Furthermore, the quantitative analysis demonstrates the importance of problem-solving confidence in predicting degree of perceived recovery.

**Implications for Social Work**

Social workers provide a major portion of services to adults with serious mental illness (Hyde, 2013), and ISM frameworks are compatible with social work core values, particularly social justice and dignity and worth of the person (National Association of Social Workers, 2008). Having access to ISM programs is an issue of social justice for two reasons. First, administrators must have the will to offer ISM programs, and social workers are well-positioned to advocate for their inclusion in the standard repertoire of agency services. Second, an organization’s values must be compatible with the principles of self-management for an ISM program to flourish (Petros & Solomon, 2015). Providers often situate people with serious mental illness as risky individuals needing to be managed and contained (Rose, 1998), but efforts to control behavior and impose decisions on consumers removes their self-determination and creates new risks to their recovery (Sykes, Brabban, & Reilly, 2015). An organization that errs on the side of risk aversion may employ staff who are unwilling or not empowered to support the right of consumers to take risks in service of recovery or the rights of consumers to engage in the autonomous process of trial and error constitutive of self-management. Social workers
can lead the field in creating organizational cultures that honor the dignity and worth of consumers by recognizing their right to take risks, engage in self-management, and access peer-delivered services.

A mental health system that promotes ISM programs will also need providers who are trained in compatible practices that are consumer-centered and collaborative. Shared-decision-making and motivational interviewing are two practices emerging in the field as best practices that support autonomy while promoting positive change (Tennille, Solomon, & Bohrman, 2014; Lukens, Solomon, & Sorenson, 2013). Social work educational programs are well-suited to teaching evidence-based practices for adults with serious mental illness and to training the next generation of practitioners how to provide recovery-oriented services that will support ISM programming.

**Future Research**

The quantitative phase of this research project investigated self-reflection and insight as predictors of the degree of perceived recovery based on qualitative findings. While previous research has demonstrated that insight predicts psychological well-being, it may be that self-reflection is not necessary for building insight; it may be that a more useful construct to explore is mindfulness. Mindfulness refers to a non-judgmental, dispassionate awareness of mental states and processes of the present moment (Grossman, Niemann, Schmidt, & Walach, 2004). While conceptually similar to self-reflection, the non-judgmental and dispassionate stance of mindfulness distinguishes it from the anxious ruminative process that can be associated with self-reflection. Mindfulness is associated with psychological well-being, self-awareness, and insight-oriented problem-solving (Ostafin & Kassman, 2012; Walach, Buchheld, Buttenmüller,
Kleinknecht, & Schmidt, 2006; Grossman et al., 2004). Future research is needed to explore the role of mindfulness in predicting degree of perceived recovery and the possibility that mindfulness training may augment the benefits of WRAP.

Findings from this research project suggest that people may learn WRAP’s framework best by interacting with other people who are also learning and implementing the self-management framework, rather than one-on-one with a facilitator or independently with a self-help guide. Moreover, consumers may learn the self-management framework more effectively and have more motivation to use it in their daily lives if at least one facilitator has personal experience with serious mental illness; because the definition of peer facilitator has changed to include anyone who practices WRAP without regard to mental health status, further research is warranted to investigate whether recovery outcomes are differentially impacted by the presence or absence of a facilitator with lived experience of mental illness.

Given that participants identified the need for additional support to implement WRAP’s framework, people may benefit from a companion intervention following the end of WRAP programming that combines social problem-solving skills with group support. By extending participants’ access to social support in a context that promotes reciprocal problem-solving exchanges, people may hone problem-solving skills and increase problem-solving confidence while concurrently resolving group members’ problems. Such a program may be popular and may augment the ability of people with serious mental illness to implement the ISM framework and adapt recovery strategies prospectively. Further research is needed to evaluate if structured problem-solving skills
training will enhance problem-solving confidence and ultimately increase degree of perceived recovery for adults with serious mental illness.

**Conclusion**

Illness self-management programs are philosophically compatible with a recovery orientation (Cook et al., 2010), and growing evidence suggests their efficacy in advancing recovery for adults with serious mental illness (Petros & Solomon, 2015). WRAP is the most widely used illness self-management program (Cook et al., 2010), and the ways in which people learn and use the self-management framework have important implications for how such programs are situated within the mental health service delivery system. WRAP seems to build participants’ understanding of and hope for recovery, and it may be most successful if it is offered within a larger service environment that supports autonomy, competence, and relatedness. Other services within organizations can be carefully selected to reinforce self-determination and augment consumers’ motivation and capacity for advancing wellness. When combined with peer support and social support WRAP appears to be an important tool for helping consumers learn to develop their own effective, personalized recovery strategies.
APPENDIX A

Initial Focus Group Interview Guide

Thank you for participating in this focus group. Let me begin by telling you a little about who I am, the purpose of this research, and the focus group format. I’ll offer a chance for you to ask any questions, and then we will get started with the focus group.

I am a student at the School of Social Policy and Practice at the University of Pennsylvania. I am interested generally in how adults who have experienced serious mental illness pursue recovery. The overall goal for this research project is to find out how people learn and use WRAP to pursue recovery. The first step is conducting focus groups like the one we’re doing today. During this focus group, I will ask you to share your thoughts about recovery and WRAP. The information you provide today will help to guide my research and refine the kinds of questions I ask as I interview other people about their experience with WRAP and recovery.

I want to make sure that I really hear and understand what everyone says today. I brought a device to record our conversation so that I can go back and listen to it and really think about what you say today. The only people who will be able to hear this recording are people on my team who are directly involved with this project. The recording will be deleted after I have analyzed the results from all of the focus groups I conduct. To help make sure that everyone’s privacy is respected, I will ask everyone to make up a name for themselves for this focus group, write it on a name card, and place it in front of you. If you would like to refer to someone here during the focus group, please use the name on the card even if you know that person’s real name. (Pass out name cards and markers.)

The person sitting next to me is ________. She is here to take notes to help me remember what has been said. She is ____________ at the University of Pennsylvania. She will not be talking during the focus group so that she can focus on taking notes.

(Make sure everyone has written their name on the name cards. If anyone has not written their name, invite them to write it on the name card.)

Let’s go around the table and have everyone say the names they wrote down on their name cards. This will help me later as I go back and listen to the recording. (Ask the person nearest on the left to begin.)

In keeping with the spirit of WRAP, let’s spend a few minutes talking about group guidelines. If you don’t mind, I’d like to offer one first: It is really helpful for me if only one person speaks at a time. It will also really help me if people can speak loudly enough for all of us to hear what you have to say. Does anyone else have any suggestions about guidelines we should set up before we begin? (If not offered, prompt for):
1. **Confidentiality:** “It is really important that everyone feels comfortable sharing during the group. Can we agree amongst ourselves to not share other’s comments outside of the focus group?”

2. **Respect:** “Everyone wants to feel respected. Can we agree to respectfully share our thoughts?”

3. **Right to Pass:** “It is important that people feel free to pass on a question if they would prefer not to give a response. Can we agree that everyone has the right to pass?”

4. **General format:** “After a question has been asked, it is helpful for me to hear from as many people as possible. You don’t have to respond to every question, and we don’t have to go around in a circle. If someone says something that makes you think of something you would like to add, it is OK to share your comments when the speaker has finished. Can we all agree to that guideline?”

Does anyone have any questions before we begin? (Wait and respond.) Let’s begin.

[The following is a list of possible questions. The focus groups will focus on the first five questions. If there is time available, other questions from the list below will be asked.]

1. I’d like to begin by having everyone go around again, say the name you wrote on your name card, and briefly share how you are currently using WRAP.

2. People use the word “WRAP” to refer to the program and to the individual plan you create for yourself. First, I am interested in your personal experience with the program of WRAP when you first experienced it. What were your experiences with the WRAP program? (probe: Did you go through the program with a group, one-on-one with a facilitator, all by yourself with a guidebook, or some other way? Tell me about that experience.)

3. I am also interested in how people use a personal WRAP plan. Tell me about your experience with a WRAP plan.

4. What was more important to your recovery: the experience of WRAP programming, or using your WRAP plan? (probe: what was helpful about each?)

5. What helps people to use WRAP effectively, and what are the main barriers?

6. I wonder about if and how WRAP continues to be useful to you. Does WRAP continue to help you pursue recovery, and if so, how?

7. Recovery can mean different things to different people. I am interested in how each of you defines recovery for yourself. What does recovery mean to you?

8. Is there anything I didn’t ask that you think I should have? (Probe: “If I had asked that question, how might you have responded?”)
APPENDIX B

Initial Individual Interview Guide

Thank you for participating in this Interview. Let me begin by telling you a little about who I am, and the purpose of this research.

I am a student at the School of Social Policy and Practice at the University of Pennsylvania. I am interested generally in how adults who have experienced serious mental illness pursue recovery. The overall goal for this research project is to find out how people learn and use WRAP to pursue recovery and to identify things that make it easier and harder for people to use WRAP. During this interview, I will ask you to share your thoughts and experience with recovery and WRAP. If there are any questions you prefer not to answer, you are free to say, “pass,” and I will move on to a new question.

I brought a device to record our conversation so that I can go back and listen to it and really think about what you say today. The only people who will be able to hear this recording are people on my team who are directly involved with this project. The recording will be deleted after I have analyzed the results from all of the interviews I conduct.

Do you have any questions before we begin? (Wait and respond to any questions.)

Let’s begin.

1. Would you begin by telling me how you first heard about WRAP?

2. How are you currently using WRAP? Possible probes:
   a. Do you currently use WRAP in your personal life?
      i. How so?
   b. If No: Was there ever a point when you were using it?
      i. Tell me about that
         ii. At some point you stopped using WRAP. People stop using WRAP for a variety of reasons. What can you tell me about the reasons you no longer use WRAP?
   c. If No: It sounds like you’ve never used WRAP in your personal life. What made you decide not to use WRAP?

3. People use the word “WRAP” to refer to the program and to the individual plans people create for themselves. First, I am interested in your personal experience with the program of WRAP when you first experienced it. What were your experiences with the WRAP program? Possible Probes:
a. Some people go through WRAP programming with a group of people and two facilitators. Some go through the program one-on-one with a facilitator or a staff person at an agency. Other people learn WRAP all by themselves with a self-help guidebook. How did you learn WRAP?

b. Tell me about that experience.

c. What was helpful about [the way you went through WRAP programming]?

d. Was there anything unhelpful about [the way you went through WRAP programming]?

e. I’m curious about the facilitator(s) [or the person(s) who taught you about WRAP and helped you to create your own plan]. Tell me about that person(s).
   
i. Did that person(s) have personal experience with mental illness?
      1. How important was that to you?

   ii. What was helpful about the facilitator(s)?

   iii. What was unhelpful about the facilitators?

4. I am also interested in how people use WRAP as a personalized plan. Tell me about how you use your personal WRAP plan.  Possible probes:

a. Some people tell me that they have a written plan, and some tell me it’s all in their head. Some read their plan daily and some just think about it. Some even have several different WRAP plans. Tell me about your personal WRAP plan(s).

   i. Do you have a written plan?
      1. How often do you read it?
      2. How often do you think about it?

   ii. Some people tell me that the wellness toolbox is the most important part of the plan. What do you think about that?
      1. How often do you do things that are in your wellness toolbox?

b. What is helpful about personal WRAP plans?

c. What is unhelpful about personal WRAP plans?

5. What was more important to your recovery: the experience of WRAP programming, or using your WRAP plan?  Possible probe:
a. What was helpful about each?
b. Some people tell me that the most helpful thing about the personal plan is the process of creating it. What do you think about that? [If more concrete prompting is needed: Some say that during the process of creating their plan, they learned to be more aware of what they needed to do to stay well, and they learned helpful tips from other people – is that true for you?]

6. Think back about when you first made the decision to go through WRAP programming. How come you decided to go through WRAP programming? [make a personal plan?]
   a. What did you hope to gain with WRAP? [programming / plan]

7. Has WRAP changed the way you pursue recovery?
   a. (How) does WRAP continue to help you pursue recovery?

8. What do the people in your life think about WRAP?
   a. Do other people you know use WRAP?
      i. What do they think of you using WRAP?
      ii. What do your friends and/or family think about WRAP?
          1. If you had to guess, what do you think they would say about you using WRAP? [good/bad]

9. Has WRAP changed the way you get support from other people as you pursue recovery?
   a. How do those people help you with your WRAP plan? [OR how do they help you pursue recovery?]

10. Suppose you have a friend with serious mental illness. What would you say to that friend if they asked you what they could gain from WRAP? [programming / plan]
    a. What do you think would make it easier for someone to use WRAP?
    b. What do you think would make it harder for someone to use WRAP?
11. Recovery can mean different things to different people. What does recovery mean to you?

12. Is there anything I didn’t ask that you think I should have? (Probe: “If I had asked that question, how might you have responded?”)

13. Is there anything else you would like to tell me about WRAP?
REFERENCES


