2017

Recovery Knowledge and Recovery-oriented Clinical Decision-Making among Mental Health Professionals Working with Clients with Serious Mental Illnesses

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RECOVERY KNOWLEDGE AND RECOVERY-ORIENTED CLINICAL DECISION-

MAKING AMONG MENTAL HEALTH PROFESSIONALS WORKING WITH

CLIENTS WITH SERIOUS MENTAL ILLNESSES

By Kendrick Peer Mugnier

Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Psychology

May 2017
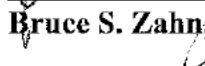
PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE

DEPARTMENT OF PSYCHOLOGY

Dissertation Approval

This is to certify that the thesis presented to us by Kendrick Peer Mugnier on the 2nd day

of May, 2017, in partial fulfillment of the requirements for the degree of Doctor of

Psychology, has been examined and is acceptable in both scholarship and literary quality.

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Acknowledgements

First and foremost, I would like to thank my dissertation committee, Drs. Bruce Zahn, Celine Thompson, and Petra Kottsieper, for their time and patience in making this project become a reality. I will remember your encouragement and kindness as much as, if not more than, your technical guidance. I am especially thankful to Drs. Larry Davidson, Mark Salzer, Lawrence Real, Arthur C. Evans, and Mary A. Jansen for your essential contributions to the recovery movement and for helping with much needed feedback and guidance regarding this study. I offer a special thank you to Dr. Robert DiTomasso for your insight and wisdom with statistics and for making our conversations as enjoyable as they were informative. I thank the authors of the Recovery Knowledge Inventory (RKI), Drs. Luis Bedregal and Maria O'Connell-Bonarrigo for your contribution to the field and your additional permission of and instruction about using the RKI. Dr. Carmella Tress, you inspired me from our first interaction and you still do to this day. This project would never have been completed without you and I cannot thank you enough.

To the professors, supervisors, mentors, friends, and colleagues who have helped me in innumerable ways both personally and professionally, I cannot thank you enough. Drs. Amy Hoch and David Rubenstein, Julie Mallory, LCSW, and the rest of the Rowan University Wellness Center, you taught me how to hold both sides. Dr. Barbara Golden, you are a model director and I appreciate your investment and belief in me as a future psychologist. CBT interns, Amelia Serine, Benjamin Barnes, Christina Barrera, Shoshana Twersky, and Leena Patel, what more can I say but we kept it crispy.

To my family, you have supported me in all my endeavors since I can remember, and that has not changed through this process. I appreciate the encouragement and your ability to never let me get too caught up in my ego for long. To my mother, grandparents, brothers, aunts, uncles, cousins, and girlfriend, you are my favorites.

Last, I would like to thank everyone who considers themselves "in recovery," especially those of you with whom I have had the pleasure of working. I am constantly inspired and awed by your strength and resilience. The people of Pennsylvania Institute of Community Living (PICL) know exactly what I mean when I say everything is difficult before it is easy.

Abstract

Recovery principles have become increasingly present in research literature and in reforms of healthcare systems in the last four decades. These principles grew out of client advocacy and research that emphasized a need for increased client autonomy, respect, holistic and individualized care, empowerment, personal responsibility, community integration, and peer support. Recovery principles are particularly important for mental health practitioners who work with individuals with serious mental illnesses. The present study used the Recovery Knowledge Inventory (RKI) to assess knowledge and attitudes of recovery principles and determine whether that is associated with the degree of recovery-oriented clinical practices that mental health professionals make when faced with hypothetical case vignettes presented with varying degrees of client engagement. Each participant's level of recovery-oriented decision-making was measured using the Recovery Clinical Decision Making Instrument (RCDMI), developed by the principle researcher. Results showed the degree of knowledge about recovery accounted for a significant amount of variance in the degree of recovery-oriented clinical decision-making. No significant main effects were found between client engagement and the recovery-oriented clinical decisions of participants. No significant interaction effects were found between recovery knowledge and client engagement on recovery-oriented clinical decision-making. Results indicated that training in recovery principles is likely to carry over to recovery-oriented clinical practices regardless of client engagement.

Keywords: recovery, shared decision-making, recovery knowledge, recovery-oriented

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Chapter One: Introduction

Statement of the Problem

The *recovery model* is a philosophy of treating clients and a framework for

joining, and collaboratively assisting, the recovery process of those with serious mental

illness (SMI) and addiction problems (Davidson, Rowe, Tondora, O'Connell, & Lawless,

2008). Because there is not one agreed-upon, consistent recovery model, the present

study refers to the concept of recovery as being composed of *recovery principles* rather

than as a cohesive model. There is a growing body of evidence supporting the

usefulness of recovery principles in systems of behavioral health care. Although the

research results are mixed, there is evidence that individuals who are treated within

recovery-informed frameworks obtain more community outreach services, are

hospitalized less frequently, and demonstrate better treatment outcomes (Anthony, 1993;

Chinman, Symanski-Tondora, Johnson, & Davidson, 2002; Farkas, Gagne, Anthony, &

Chamberlin, 2005; McDermott et al., 2016; Oades, Crowe, & Nguyen, 2009). Although

recovery literature sets aspirational ideals, there are considerable challenges in finding

empirical support for implementing the recovery principles that correspond to those

ideals. Recovery itself is a challenging topic to research because the definition is one that

is inherently flexible and subjective.

Despite its limitations and conflicting data, there is empirical evidence supporting

the use of recovery principles, and it is important for mental health practitioners and

mental health systems to incorporate these findings into their clinical practices (White,

2008). This is particularly important for individuals who have SMI and addiction

problems, especially in light of the substantial economic costs of not treating those

individuals in an efficacious manner (Dickey & Azeni, 1996; Drake et al., 2001).

Additionally, those individuals with both mental health and addiction problems are

significantly more likely to be victimized by acts of violence than individuals with solely

a substance use or a mental health problem (Sells, Rowe, Fisk, & Davidson, 2003). The

significant increases in societal cost, and risk to the individual's safety and well-being,

dictate a need for a higher degree of effective engagement on the part of mental health

professionals.

The recovery principles emphasize the importance of self-direction,

individualized treatment, peer support, autonomy, choice, and hope (Substance Abuse

and Mental Health Services Administration [SAMHSA], 2006). The concept of recovery

has evolved in opposition to the view that SMI can only result in lifelong impairment.

The idea of recovery has been researched for several decades, but there remains

confusion about what constitutes recovery (Davidson & Roe, 2007). Although recovery

has become a buzzword in the literature and in practice, it is unclear whether practitioners

in the field are knowledgeable about the specific recovery principles or if they use them

as guidelines in their clinical work.

There is evidence that people in psychology master's and doctoral level programs

get little exposure to training on recovery-oriented practices (Tress, 2014). There are

competency frameworks that provide some guidance for how practitioners can use

recovery principles in outpatient and inpatient settings, but the degree that these

guidelines are followed likely varies widely and is not well-understood in the literature

(Chen, Krupa, Lysaght, McCay, & Piat, 2013; Young, Forquer, Tran, Starzynski, &

Shatkin, 2000). Although the recovery-oriented perspective is useful in transforming

systems of care, the effects of including recovery principles and competencies as part of evidence-based practices are not yet clear (Achara-Abrahams, Evans, & King, 2011; Davidson et al., 2008). Establishing the degree to which individual practitioners know and endorse the tenets of recovery-informed care could help support increasing training and integration of recovery model principles into the academic coursework and post-graduate programs of mental health practitioners. Additionally, the knowledge and attitudes of mental health professionals about recovery principles could have profound effects on their applied skills, including how they make clinical decisions. Finally, an improvement in services provided to clients by using recovery principles would further underscore the rationale for increased training and integration of these principles in the coursework, practicums, internships, and continued education of mental health professionals.

Purpose of the Study

The purpose of the present study was to determine the extent to which master's and doctoral level mental health practitioners know and use recovery-oriented principles when faced with varying degrees of client willingness to participate in treatment. Although there have been notable efforts to create recovery-informed systems of care in the United States, there is ample room to further explore how these initiatives guide actual clinical practices. This study filled a needed gap in the current recovery-oriented research by exploring the degree to which individual practitioners' decision-making is influenced by their knowledge of and attitudes toward recovery principles. The study also explored clinical decision-making with a hypothetical client, and to what degree the participants implement recovery-orientated treatment, depending on the level of that

client's willingness to participate in treatment. It is reasonable to presume that a substantial portion of mental health practitioners have had some exposure to the terminology and philosophy of recovery-oriented treatment, especially if they are working in organizations that purport to be recovery-oriented. A thorough review of the available literature did not reveal any studies exploring the connection between mental health professionals that profess to be recovery-oriented and the actual clinical practices of those individuals. The present study may be a valuable way to lend more support to the inclusion of recovery principles into the training of mental health practitioners, especially as it relates to the treatment of people with SMI.

Conceptually, there are obvious advantages to a recovery-oriented healthcare approach, as it taps into the strength and resiliency already at work for consumers, but do healthcare professionals actually practice with this in mind? Although there is bound to be variability in each practitioner and across individual clients, this study sought to explore empirically how knowledge of the principles of the recovery model influence the way mental health providers make clinical decisions about services for adults with SMI. Additionally, this study aimed to provide more information to support the notion that people with SMI need competent practitioners who know and use the principles of the recovery model in clinical practice.

Chapter 2: Literature Review

The concept of recovery has existed in the field of mental health and in the literature for decades, but the understanding of the influence of the recovery model continues to evolve. Additionally, the empirical evidence of how consumers and practitioners understand and use the principles of the recovery movement is still growing. The recovery principles continue to gain scientific support, as greater numbers of mental health practitioners, agencies, and public policies endorse recovery as a guiding principle in healthcare services (Davidson, 2016). The recovery-oriented approach offers a positive, hopeful, strength-based, and empowering orientation to practitioners and clients alike. The central principle in this approach is the idea that individuals with SMI and substance use disorders can find hope and meaning in life, regardless of their limitations and symptoms.

The necessity for incorporating recovery-oriented practices into public policy, healthcare agencies, and individual professional practices has been discussed at length in the literature, but there is a lack of scientific evidence that examines if and how adherence to the recovery principles influences individual practitioners and their clinical judgments with clients (Davidson et al., 2008). Previous research about recovery-oriented systems of care was conducted by analyzing changes in the client population and the knowledge and attitudes of providers (Davidson et al., 2008), but the clinical decision-making of individual providers, especially as it relates to different presentations of client participation in treatment, has not been explored as an effect of recovery transformation. Many agencies and professionals may use language that appears recovery-oriented without fully understanding and using recovery-informed practices.

Additionally, it is unclear whether mental health professionals who know about the recovery principles endorse and use them in their clinical decision-making.

Recovery Definitions and Disagreement

The recovery principles constitute a philosophy about how people with mental illnesses and substance use disorders can, and do, recover. The recovery movement's strengths as an inclusive and multifaceted approach also contributed to some disagreement or, at least, lack of operational clarity regarding the definitions of the construct of recovery. The concept of recovery has been discussed for decades in literature, but the definitions range from the complete amelioration of symptoms to merely functioning at a level that the individual deems appropriate for his or her life (Davidson, 2016; Davidson & Roe, 2007). The confusion results from the multifaceted etiology of the concept of recovery. The influence of public policy and the consumer movement created a range of viewpoints about what recovery truly is (Davidson, O'Connell, Tondora, Lawless, & Evans, 2005). The consumer movement endorses a viewpoint of functionality, which is a subjective and individualized stance on what recovery looks like. This stands in contrast to the operational view espoused by agencies such as the World Health Organization (WHO), which involves the reduction or amelioration of symptoms as a central tenet (Davidson & Roe, 2007). Medical literature analyzing the treatment of illnesses such as influenza, tuberculosis, and infection appropriately defines recovery as an elimination of symptoms and illness; however, this definition does not apply to mental illnesses, such as schizophrenia. People with schizophrenia may return to varying levels of functionality while also having varying levels of symptomatology over time, making it inherently difficult to determine what actually constitutes recovery using a medicalized definition (Bellack, 2006). Because of

the differing perspectives at play, recovery means significantly different things to different people.

In a review of consumer, provider, and provider-consumer perceptions of recovery principles, Russinova, Rogers, Langer Ellison, and Lyass (2011) found a broad consensus for definitions of recovery principles, with a particular emphasis on conveying a genuine sense of respect for the client. There was also clear support for the following principles: "(a) helping clients develop skills to cope and manage their psychiatric condition; (b) seeing clients as persons apart from a diagnosis and symptoms; (c) helping clients accept and value themselves; (d) listening to clients without judgment; and (e) believing in clients' potential for recovery" (Russinova, Rogers, Langer Ellison, & Lyass, 2011, p. 182). In a review of qualitative studies, experiential accounts of recovery, and articles written by consumers, Andresen, Oades, and Caputi (2003) found evidence for four underlying factors, or "component processes," underlying recovery: finding hope, redefining identity, finding meaning in life, and taking responsibility for recovery. The theme of hope in the literature refers to consumer experiences of finding inspiration, discovering personal agency, expression of hopefulness from others, and having a goal or specific pathway to a better life envisioned. The construct of self-identity was identified as highly salient because a common theme experienced by an individual with SMI is the loss of his or her sense of self in the moment and self in the future. The recovery process involves regaining a sense of identity that includes acceptance of having an illness while not defining oneself solely as a "patient" or "mentally ill" (Andresen, Oades, & Caputi, 2003). Meaning in life was revealed as a common principle of recovery that is defined broadly and can mean many things to different people. Some consumers emphasized the

usefulness of employment to feel a sense of purpose, whereas others spoke about finding meaning in the recovery process itself. Finally, consumers identified taking responsibility as a key component to recovery. This involves empowerment and self-determination, as consumers recognized the importance of making informed decisions and learning from their mistakes (Andresen et al., 2003).

Davidson et al. (2005) proposed a framework for understanding the central principles of recovery, which is based upon scientific literature and the consumer movement's input. This framework includes the following principles: renewing hope and commitment, redefining self, incorporating/accepting illness, being involved in meaningful activities, overcoming stigma, assuming control, becoming empowered and exercising citizenship, managing symptoms, and being supported by others (Davidson et al., 2005). In 2006, the SAMHSA made an effort to further standardize the definition of the recovery model by outlining ten central principles.

Self-direction. Individuals in recovery must design their own life goals, and have control over the route to achieving those goals.

Individualization and person-centered. The recovery approach postulates that individuals can and do take multiple pathways toward their recovery. The recovery process is an ongoing journey toward achieving wellness and optimal health. The route toward this process must take into account individuals' specific needs, preferences, history (including trauma), and cultural considerations.

Empowerment. A person in recovery has individual authority and the ability to have a voice in all decisions about his or her treatment. He or she has the ability to speak about needs, and advocate for him- or herself as an individual and with peers.

Holistic. This recovery principle takes into account all aspects of an individual's being, including physical, mental, spiritual, and social needs. Recovery in this sense focuses not only on mental health recovery, but on the practical considerations that play a pivotal role in a holistic process of growth. This can include a wide range of variables, such as housing, employment, education, healthcare, leisure activities, spiritual activities, family supports, and among others.

Non-linear. Recovery is considered a non-linear process of growth that takes into account the natural process of having setbacks, making mistakes, and learning through experience. Recovery is not considered a linear, step-by-step process, and setbacks are seen as part of the process.

Strengths-based. The recovery approach places a particular emphasis on the strength and resiliency of individuals as well as their inherent worth as people. This means recovery takes into account individual talents, skills, and coping abilities, instead of simply focusing on an individual's problems.

Peer support. The concept of mutual support is particularly important for individuals in recovery. This is a central aspect to many grassroots movements in substance use treatment, and is also part of the recovery process. Individuals are seen as benefitting from support, having a sense of belongingness, having a role, and being a part of a community.

Respect. The concept of respect is important for individuals in regard to their concept of self, as well as for stakeholders in the healthcare system and community toward individuals in recovery. Community efforts to reduce or eliminate stigma and discrimination are one part of respect, and self-acceptance is another.

Responsibility. People in recovery are ultimately responsible for their own self-care and their recovery processes. This promotes engagement and ownership of the recovery process.

Hope. The concept of hope is central to recovery, as individuals and treatment providers need to be motivated to work toward better futures in order to engage in productive recovery processes. Hope is seen as an internal process on the part of the person in recovery, but can be facilitated by peers, friends, treatment providers, family members, and others (SAMHSA, 2006).

Although these principles may seem intuitively important, the selective emphasis on these guiding principles can vary widely for mental health practitioners. This is especially relevant because recovery-oriented practitioners advocate for an individualized and flexible approach, which may be seen as a personal journey of shifting attitudes, beliefs, and perceptions of oneself to embrace a stance of hope and meaning in one's life (Young & Ensing, 1999). Mental health practitioners' traditional approaches often focus on remission or amelioration of symptoms: If someone hears voices, the person is considered to be recovering when his or her voices reduce in intensity, frequency, and duration. Focusing exclusively on remission of symptoms ignores the positive efforts people make as they adapt and find ways to function while they are experiencing symptoms. A more accurate definition of recovery is multidimensional and takes into account the perspectives of current and former consumers as well as newer research that has indicated people with SMI do not have a prescribed trajectory of chronic mental illness. Both consumer voices and recent research have delineated that recovery in mental illness is possible (Bellack, 2006).

In a review of the literature, Davidson and Roe (2007) identified two complementary definitions of recovery that shed more light on how we can look effectively at the process of recovery. Longitudinal data have demonstrated that the course of SMI, such as schizophrenia, is varied and heterogeneous, but individuals experience more symptom remission than previously thought (Carpenter & Kirkpatrick, 1988; Carpenter, Strauss, & Bartko, 1973; Davidson et al., 2008; Strauss & Breier, 1987). The traditional definition of recovery can be viewed as recovering *from* a mental illness; however, there is an equally important aspect of recovery that has been discussed in the growing body of literature that refers more to recovering *in* mental illness (Davidson & Roe, 2007). Practitioners who focus only on the former at the expense of the latter may help their clients address symptoms without properly addressing the multifaceted, individualized, holistic approach needed to help people develop meaningful and workable lives. Recovering while still experiencing symptoms of SMI is, by definition, having the right to self-determination; it is being able to make one's own choices and still engaging in the activities of life that give meaning to each day, whether that is washing the dishes, walking the dog, or spending time with one's children (Davidson et al., 2008; Mancini, 2008). This is an important aspect of the recovery model and deviates from traditional, symptom-focused approaches to recovery. In short, recovery is a process, not a destination (Roe, Rudnick, & Gill, 2007).

There are multiple models of recovery that convey the above information in various ways. For instance, Jacobson and Greenley (2001) state, "In our model, the word *recovery* refers both to internal conditions—the attitudes, experiences, and processes of change of individuals who are recovering—and external conditions—the circumstances,

events, policies, and practices that may facilitate recovery" (p. 482). They postulate that

recovery is a qualitative and quantitative process of transformation that can influence

internal and external conditions (Jacobson & Greenley, 2001). Again, this approach is

not exclusively about symptom reduction or amelioration, but about engaging with one's

internal sense of self and having a meaningful connection with one's community,

wherein a sense of purpose and hope is instilled.

History of the Recovery Movement

Sociopolitical context. The recovery movement can be considered a facet or, at

least, a parallel process of the larger civil rights movement starting in the 1950s and

1960s, and continues moving forward in many aspects today in the United States (Grob,

1994). Both movements embody similar ideas about human dignity, rights, and respect.

Specifically, the recovery movement postulates the idea that individuals with mental

health problems deserve the same respect and opportunities to live in their communities

as anybody else. At its core, the recovery movement is a social movement, arising from

the very people who have been mistreated and disenfranchised from the political

structure. Over time, this social movement has shifted into the research agendas of

scientists, public policies, and, perhaps most importantly, into the evolving cultural

understanding of mental illness as a human rights issue (Davidson et al., 2008; Grob,

1994; Isaac, 2008).

Prior to the 1950s, national legislation, politics, and public policy in the United

States focused more on economic depression and war than issues of institutionalization

and social justice for people with mental illness (Hall, 2005; Isaac, 2008). The

movement toward providing better mental health services for disadvantaged populations

began after a rebuilding period after World War II (WWII; Grob, 1994). Following

WWII, the previous system operated by the Civil Service Commission was unable to

cope with the approximately 100,000 hospitalized veterans returning home, which

prompted the creation of the Veteran Affairs (VA) Department of Medicine and Surgery

(Hollingsworth & Bondy, 1990). These hospitals were created with the input and

collaboration of medical schools and institutions to aid in recruiting physicians,

maintaining quality standards, and carrying out educational programs.

During the first half of the 20th century, individuals with SMI were often

restricted to inpatient, state-run hospitals. These hospitals were not only costly, but also

served to disenfranchise and disempower the people needing mental health services by

unnecessarily controlling them instead of teaching skills and approaching treatment with

a least-restrictive-environment philosophy that is common today (Goldman, & Grob,

2006; Grob, 1994).

Deinstitutionalization. One important trend in the mental healthcare system in

the United States during the last 30 to 40 years has been a shift away from inpatient

hospitals, especially the long-term, state run hospitals previously known as asylums, to

more community-based care (Grob, 1994, 1995). The idea of deinstitutionalization may

have been born as much out of economic interests as a concern for the rights of

individuals with SMI, but this shift dictated increased need for the creation of more

community services. This was furthered by policy shifts and guidelines such as the

Community Mental Health Centers Act (CMHCA) created in 1963 (Grob, 1995).

Nevertheless, the movement from hospitals to community services was far from a smooth

transition.

Although there were already some positive changes in the mental health system, legislative priorities in the early 1970s were not focused on providing mental health funding, and people with SMI were not yet provided with nearly adequate services (Goldman & Grob, 2006; Grob, 1995, 2005). In 1977, the President's Commission on Mental Health was established under the Carter administration (Goldman & Grob, 2006; Grob, 1994, 2005). That same year, Congress approved the Mental Health Systems Act (MHSA), putting more emphasis on mental health care, but not enough resources to truly help all those in need (Goldman & Grob, 2006; Grob, 1994). The current state of deinstitutionalization has shifted the provision of services from "unnecessary institutionalization" to practically unavailable institutional care for those needing it the most (Bloom, 2010). This correlates with a direct rise in the rate of incarceration for individuals with SMI, further highlighting an ongoing need for more effective systems of care and greater advocacy for the most vulnerable populations (Bloom, 2010). The current criminalization of the mentally ill is a topic that deserves attention and relates to the present study, as the recovery movement is intended to effect change in systems of care to help people with SMI live outside of unnecessary restrictions, including prison (Davidson et al., 2008).

Although there are substantial inadequacies in community systems of care, there is also evidence showing that adults with SMI prefer living in the community as opposed to being institutionalized (Davidson, Hoge, Godleski, Rakfeldt, & Griffith, 1996). The amount of emphasis on mental health funding by different presidential administrations and Congress has varied over time, facing constant debate and disagreement in the political arena. Conversely, consumer movements that emerged in the latter part of the

20th century consistently help shape the way society deals with individuals who are underserved and mentally ill (Grob, 1995).

      Consumer movement. In the absence of a consistent political voice or policy to advocate for their rights, consumers of the mental healthcare system began speaking out on their own behalf in the 20th century (Davidson et al., 1996). Their voices formed the core of the recovery movement, combating the stigma, disenfranchisement, and disrespect so often experienced by those with SMI (Davidson et al., 2008). The concept of recovery is such a deeply personal and individualized process that the research literature related to the study of recovery must be informed directly by the opinions and experiences of the individuals who struggle with SMI (Davidson et al., 1996; Deegan, 1988; Sullivan, 1994). For example, a particularly profound voice in the recovery movement is that of Pat Deegan, a woman who was diagnosed with schizophrenia and went on to obtain a doctorate in psychology, write extensively about her personal experiences, and play an important role in advocacy for others with mental illness (Deegan, 1996). Similarly, Kay Jameson (1995) made her experiences with bipolar disorder public in her book, *An Unquiet Mind: A Memoir of Moods and Madness*. Another strong voice in the recovery movement was the author of *On Our Own*, Judi Chamberlin (1978), who wrote passionately about her experiences in psychiatric care. She advocated for peer-led alternatives to psychiatric care to help people recover without the iatrogenic and inhumane treatment they often experience (Chamberlin, 1978). Many other important voices in the consumer movement have also been central to the creation of empirically supported recovery principles and methods. One such example is Fred Frese (2010), who has worked for years as a psychologist, publishing papers and books,

conducting research, speaking, and advocating in spite of, and perhaps because of, a diagnosis of schizophrenia. A more recent example of personal disclosure in the field of psychology is from Marsha Linehan, who revealed personal struggles with borderline personality disorder. Those struggles informed her research and clinical work, and she developed a highly effective and empirically supported treatment modality known as dialectical behavioral therapy (DBT; Carey, 2011), which addresses problems in emotional regulation, mindfulness, distress tolerance, and interpersonal effectiveness.

　　　An important aspect of the recovery movement is the creation of grassroots organizations and interventions made by and for the consumers of mental health services. In this way, the recovery movement has been similar to the development of addiction networks and supports, such as Alcoholics Anonymous and Narcotics Anonymous, which serve to reduce judgment and stigmatization of their members and function without professional services. Developed in England in the 1980s, the Hearing Voices Network is an example of recovery-oriented, grassroots treatment and advocacy. It is a non-professional organization in which people who experience auditory hallucinations provide support and guidance to one another (Dillon & Longden, 2013). Another example is the Wellness Recovery Action Planning developed by Mary Ellen Copeland, which is a group-based, peer-led, self-management intervention that has notable efficacy for individuals with SMI (Cook et al., 2009; Copeland, 1997). There is a growing body of literature that supports the implementation of peer-delivered services such as those mentioned above and others, often delivered by certified peer specialists (CPSs; Cook, 2011). All of these unique interventions and treatment modalities play a role in recovery-

oriented services, as they reduce power differentials and barriers found commonly in healthcare for people with SMI, with the hope of increasing engagement in treatment.

Earlier research on factors that consumers consider necessary for their recovery reflected significant emphasis on quality of life variables, including self-determination, spirituality, and vocational/educational engagement, in addition to the traditional treatment factors of psychiatric medication and supportive community services (Sullivan, 1994). This empirical exploration of consumer preferences has been approached by consumers themselves, who then engage in advocacy and research, as well as researchers who study the perceptions and opinions of those in recovery (Davidson et al., 2008; Lehman, 2000; Young & Ensing, 1999). Although there is not consensus on what constitutes the most effective and efficacious factors in people's recovery, research has made efforts to integrate qualitative data from consumers, in addition to academic and possibly more esoteric interpretations of the construct of recovery (Le Boutillier et al., 2011). Consumer advocates have made enormous progress on outlining the need for changes in the attitudes of mental health professionals as well as promoting their own system of advocacy and self-determination (Mead & Copeland, 2000). Recovery research attempts to create measurable constructs that are scientifically driven, while balancing the need for flexibility by including the phenomenological qualitative definitions of consumers.

Serious mental illness. The present study focused on recovery principles and the way mental health professionals use and do not use those principles when working with a hypothetical client who has a "SMI." SMI refers typically to a mental health disorder that is chronic and debilitating (Hedden, 2015); however, it should be noted that the

definition of what constitutes SMI varies widely. For the purposes of this study, SMI

serves as a somewhat broad term that includes any mental health condition that is chronic

and debilitating. The case vignettes used to assess recovery-oriented decision-making in

the present study refer to an individual with symptoms of psychosis, which is consistent

with previous recovery-oriented literature citing the importance of longitudinal studies on

schizophrenia, one of the most commonly-occurring diagnoses often associated with SMI

(Strauss & Breier, 1987; Szöke et al., 2008).

Finding consensus on a precise definition of SMI can be challenging. According

to research from the National Institute of Mental Health (NIMH), SMI is a "mental,

behavioral, or emotional disorder" diagnosed in the last year that meets *DSM-5* criteria

for a mental health disorder and results in serious functional impairment that interferes

substantially or limits one or more major life activities (Center for Behavioral Health

Statistics & Quality, 2015). By that criteria, there are an estimated 9.8 million adults in

the United States with SMI (Center for Behavioral Health Statistics & Quality, 2015).

Arguably, the most influential and important research on SMI began in the 1960s with

global studies on schizophrenia. These studies were carried out initially by the WHO

(1973). Prior to the research in the late 1960s and early 1970s, schizophrenia was seen as

a distinct, chronic, severe condition that rendered people unable to function meaningfully

in society and would follow a relatively predictable course of deterioration. The disorder

was first categorized by Emil Kraepelin in the early 1900s, as he distinguished

schizophrenic psychosis from affective disorders (Craddock & Owen, 2005). The WHO

longitudinal studies were significant in that they demonstrated that adults with

schizophrenia have highly variable courses of their illnesses, characterized by varying

degrees of symptom remission at certain stages, and changes in symptom intensity, frequency, and duration (Carpenter & Kirkpatrick, 1988; Carpenter et al., 1973; WHO, 1973). This is particularly relevant as an impetus for the recovery movement because this research lends a solid scientific basis for viewing individuals with SMI in a more individualized, nuanced way. This means a one-size-fits-all approach is contraindicated for individuals with SMI, and early intervention is associated with better outcomes according the available literature (Davidson & McGlashan, 1997).

Further research lending support to the notion that individuals with serious psychological disorders can and do recover occurred in the late 1980s in Vermont (Strauss & Breier, 1987). These longitudinal studies showed that adults who were hospitalized with serious mental health symptoms were not rehospitalized within 10 years 70% of the time, and over half of the adults still had significantly reduced or eliminated symptoms after 20 to 25 years (Harding, Brooks, Ashikaga, Strauss, & Breier, 1987a, 1987b). In a review of research data, Davidson and McGlashan (1997) found a great deal of variability in the course of illness for those diagnosed with schizophrenia, although negative symptoms and later intervention predicted more psychosocial impairment (Davidson & McGlashan, 1997). Longitudinal research has been used to combat the long-held, prejudicial attitude that sufferers of SMI do not ever get better and can never function in society. Combating these negative viewpoints has been necessary to open the door for more research, leading to more system-wide changes that allow for evidence-based treatment that includes more effective clinical practices and treatment modalities (Carpenter & Kirkpatrick, 1988).

The Recovery Approach in Health Systems

Although it is unlikely that mental health practitioners enter the field to consciously perpetuate stigmas and prevent healthy growth for their clients, there is evidence to suggest that the language used in mental health systems can do just that (Flanagan, Miller, & Davidson, 2009). The mental health system classifies people into categories and labels, which often perpetuate clients' views of themselves as having permanent flaws that are central to their beings. This approach is antithetical to recovery-oriented practices, which seek to eliminate stigma held by the healthcare providers. Many cities and states have adopted recovery as part and parcel to their systemic orientation to create meaningful change within their mental healthcare systems (Achara-Abrahams et al., 2011; Davidson et al, 2008).

There is a growing body of research that supports the efficacy of recovery-oriented systems of care as a way to benefit individuals and society (Chinman et al., 2002; Davidson et al., 2008). Providing community-based services that engage in outreach with varied approaches to care in a recovery-oriented framework can increase engagement and retention of the most vulnerable populations (Davidson, 2008; Evans, 2011). It costs the healthcare system less to engage individuals in outpatient settings, as compared to hospitalizing them repeatedly or to housing them in long-term state-run institutions (Rothbard & Kuno, 2000). Without adequate and engaging community-based services to support people in recovery, individuals with SMI are more likely to be hospitalized, and re-hospitalized, for acute symptoms. The status quo uses up substantial economic and human resources and underscores the imperative of prevention rather than mere damage control (Davidson, 2016; Evans, 2011; Farkas et al., 2005). In a recent review of literature about recovery from schizophrenia globally, Warner (2009) outlined

the importance of empowerment as an element of the recovery process. This means that people with schizophrenia are helped by being more active and productive, particularly when taking the chance to work (Warner, 2009). This is particularly important, as it further indicates the shift from long-term hospitalization to active community participants, in which individuals with schizophrenia benefit from making their own choices and "opting in" to become working, contributing members of society.

Recovery-oriented services utilize a multidisciplinary approach that respects the individual needs of people served, allowing for creative interventions that do not alienate their consumers but, rather, keep them invested in the process of growth and change (Anthony, 2000; Davidson, 2016; Davidson et al., 1996,; Evans, 2011). Recovery advocates in healthcare settings attempt to adjust the language from "chronic illness management" terminology common in medical settings to collaborative, hopeful, and individualized care (Lester & Gask, 2006). It is unknown how system-wide recovery principles affect, or do not affect, the individual clinical decisions of mental health practitioners; however, there is evidence that training practitioners in recovery-oriented care is often well-received and impactful on how those clinicians think about and interact with clients. In a study of mental health professionals in Australia that used the Recovery Knowledge Inventory, participants showed significant improvement in their knowledge of recovery principles following a 3-day training (Meehan & Glover, 2009). Results from that study showed mostly sustained improvement at a 6-month follow-up (Meehan & Glover, 2009).

Given the benefits of integrating recovery principles into systems of care, it is little wonder that many healthcare systems have endorsed recovery-oriented practices

(Chinman et al., 2002; Davidson et al., 2008; Evans, 2011). In 2002, President George W. Bush signed an executive order calling for a system-wide study with recommendations to improve the mental health system. This resulted in the New Freedom Commission on Mental Health and nation-wide recommendations to transform mental health systems to be more family- and consumer-driven (Hogan, 2003). Bonney and Stickley (2008) conducted a substantial review of the recovery literature and found support from providers and consumers for the recovery principles, including a focus on identity, service provision agenda, social domain, power and control, hope and optimism, and risk and responsibility. Additionally, the recovery principles became more widely recognized as recommendations by various government-funded organizations such as SAMHSA and the VA.

In a substantial empirical study of system transformation in multiple New Jersey counties, Malinovsky et al. (2013) found some evidence that mental health professionals working with adults with SMI benefitted from implementing recovery-oriented principles by adjusting their methods of case conceptualization and clinical interventions. Additionally, the rates of inpatient hospitalization were reduced drastically after the implementation of recovery-oriented training and practices (Malinovsky et al., 2013). This study represents one small step in the process of further exploring how systems of care can change with the introduction of training in recovery-oriented care.

Anthony (2000) further assisted service providers by delineating standards of recovery-oriented systems and proposed providers look at the following realms:

Design. Instead of mentioning recovery principles in the description of services, providers are encouraged to include a recovery-focused vision as "driving the system."

Evaluation. The provision of services is evaluated regularly with measures that include consumer and family evaluations of treatment, as well as measuring other system variables such as consumer employment percentages, numbers of inpatient hospitalizations, and other relevant factors.

Leadership. Not only is leadership and upper management aware of recovery-focus, but leaders reinforce the system standards on a consistent basis.

Management. Each service has clear policies and processes that include explicit recovery-oriented language, and policies should ensure that supervisors hold staff accountable for implementing recovery-focused services.

Integration. Providers create a standardized planning process based on consumer outcomes. Referrals between services include consumer goals, and different departments address consumer concerns in a cohesive manner.

Comprehensiveness. Providers address consumer goals that fall outside of the mental health environment by assisting them with spiritual, employment, and other community-based goals.

Consumer involvement. Recovery-oriented systems seek to employ consumers at all levels of the organization and allow opportunities for consumer-controlled self-help services that include family in design and evaluation.

Cultural relevance. Providers with a recovery focus hold policies that ensure services are conducted in a way that is culturally competent.

Advocacy. Recovery-oriented systems of care advocate for "a holistic understanding of people served" (p. 165) that includes an understanding of recovery potential and the ability for people served to participate in community roles.

Training. People in recovery organizations are trained on the recovery vision and on policies about recovery knowledge.

Funding. "Dollars across services are expended based on consumers' expressed needs...on expected process and outcomes of services" (p. 166)

Access. Consumer preference dictates access to specific services, and systems of care assist with increasing access to living, school, work, and social environments (Anthony, 2000).

Barriers and Areas in Need of Improvement

Recognizing the growing body of research literature and the shift of some health systems to a more recovery-oriented approach are needed steps in serving individuals with SMI. One must also note that there are still many systemic obstacles that require attention. True system transformation requires a massive, coordinated effort that includes policy makers, public and private agencies, public support, and the input of the people being served (Evans, 2011). This is not necessarily an easy goal to accomplish, as systemic and individual barriers inevitably arise. A broad review of multiple meta-analyses indicated that systemic changes in healthcare are inherently challenging to implement unless they involve easy-to-understand and execute guidelines that do not require specific resources (Francke, Smit, de Veer, & Mistiaen, 2008). Ten key barriers were identified that often arise from a fundamental misunderstanding about what it means to provide recovery-oriented care (Davidson, O'Connell, Tondora, Styron, & Kangas, 2006). Addressing the concerns outlined by Davidson et al. (2006) is seen as an essential step in providing recovery-oriented care. The primary 10 concerns relate to providers' perceptions of risk and resources (Davidson et al., 2006). For example, providers who

are told to focus more on promoting self-determination may be concerned that they are more exposed to risk and liability. Understandably, they do not want to be blamed if one of their clients makes a choice that harms himself or herself or harms somebody else. Providers also may see their roles as "devalued" if they are told that, despite their many years of training and their clinical experience, they must let their clients make their own decisions and get much of their support and guidance from their peers. This also relates to the perception among providers that their clients are "too disabled" to recovery properly. Providers who see recovery as not possible for their clients are less likely to adopt a recovery-oriented stance. Furthermore, advocating for a hopeful stance may be seen as "setting people up for failure" if they do not experience recovery. Other barriers relate to the perception that adopting a recovery-informed approach is an "extra" add-on to existing services. Community mental health providers are used to limited budgets and may see a shift to recovery-oriented care as "one more thing" that stretches their resources (Davidson et al., 2006). Many of the concerns were also echoed in other research that suggests that mental health providers often perceive the concept of recovery-oriented services as risking the health and safety of clients (Tickle, Brown, & Hayward, 2014). Encouraging clients' autonomy, choice, and self-directedness can be seen as increasing the risk they will harm themselves, others, or be victimized due to impaired decision-making abilities and increased symptomatology (Davidson et al., 2006; Tickle et al., 2014). Additionally, practitioners may see the trend of recovery-oriented services as "just one more mandate" from institutional funding sources that dictate that they stretch already exhausted services to "do more." This perception is not necessarily accurate, as allocating funds and resources to address the needs of clients simply means

adapting and wasting less of those funds and resources on ineffective methods and putting the energy into tools that will provide more meaningful help (Davidson et al., 2006).

Clinical Decision Making

Understanding how mental health professionals make decisions regarding their clients is complex. To understand how mental health providers may or may not apply recovery principles, one must have some understanding of how clients with serious mental health problems are perceived by those in the helping profession and how mental health professionals include their clients in clinical decisions. One recent area of focus has been in shared decision making (SDM), defined as "the process of enabling clients to participate actively and meaningfully in their treatment by providing them with accessible information and choices" (Adams, Drake, & Wolford, 2007, p. 1219).

Mental health practitioners come from diverse backgrounds with a wide array of tools and skills, and they have inevitable biases that come with their past personal and professional experiences. Any state licensed or license-eligible mental health practitioner has training in ethical practices and cultural competencies, which in theory should guide him or her to approach individuals with mental illness without judgment or prejudice. Research suggests that mental health practitioners exhibit many of the same biases and stereotypical attitudes about individuals with SMI as the general public (Nordt, Rossler, & Lauber, 2006). In a survey of 1,073 mental health professionals and 1,737 members of the public, Nordt et al. (2006) found that psychiatrists hold more negative stereotypes toward people with depression and schizophrenia than people in the general public. This study also found that mental health professionals and people in the general public

indicated more social distance toward those with schizophrenia than they did toward

people with depression and no mental health disorder (Nordt et al., 2006). Biases are an

important consideration in thinking about how mental health professionals make

decisions, and the research about bias further underscores the need for SDM during

clinical encounters.

In order to combat the existence of unintentional bias, which is particularly salient for

individuals with more serious and persistent mental illnesses, there is a growing body of

evidence that suggests that SDM helps improve treatment outcomes for a variety of

problems (Durand et al., 2014). SDM involves a consumer and provider each sharing

pertinent information and opinions while working toward mutual agreement about

decisions regarding the consumer's health. Both provider responsibilities and client

preferences are discussed. There is no empirical consensus about the efficacy of SDM,

and methodological issues regarding how to measure its occurrence have been identified

in a review of the research literature (Shay & Lafata, 2015). Additionally, there is

evidence that SDM is not implemented correctly or enough, especially for individuals

with SMI (Velligan, Roberts, Sierra, Fredrick, & Roach, 2016). Nevertheless, taking a

stance of respect by eliciting and attempting to understand the choices of consumers is

seen by some as an ethical imperative (Drake & Deegan, 2015).

As stated by Corrigan et al. (2012) "health-related decision-making is

fundamentally a social exchange between person and provider" (p. 171). In delivering

recovery-oriented care, providers are asked to help their clients make health-related

decisions in a way that is cooperative and driven by a person's goals and motivation.

Recovery-oriented research identifies a distinction between adherence as the sought-after

paradigm and promoting self-determination, which is seen as the more recovery-oriented stance in working with people suffering from SMI (Corrigan et al., 2012; Mancini, 2008).

A review of 39 studies examining SDM and client outcomes revealed that SDM is associated with improved cognitive/affective outcomes, but the links between SDM and client outcomes are difficult to establish given the current methods for measuring SDM (Shay & Lafata, 2015). One study focused on medication management for clients with SMI showed that providers initiate most decisions, and then consumers are invited to participate in the decision-making (Matthias, Salyers, Rollins, & Frankel, 2012). Interestingly, this research also showed that decisions initiated by consumers resulted in more discussion and disagreement. It also resulted in more consumer-led decisions being made (Matthias et al., 2012). Recovery-oriented clinical decision-making is conceptually analogous to SDM. Additionally, SDM is related to client engagement and participation, which are necessary for services to have an impact, and is recognized as a challenging area for those with SMI (SAMHSA, 2012). In a comprehensive guide for becoming a recovery-oriented practitioner, Roberts and Boardman (2014) discuss the importance of engaging in SDM as a way to promote self-management and self-determination, as those are vital components to the recovery process. Mental health professionals who do not practice within a recovery-oriented framework may see themselves at responsible to make decisions for their impaired clients as opposed to respecting their rights to make mistakes and find their way in the recovery process.

Qualitative data suggest that mental health professionals in various disciplines view consumers' attitudes and behaviors as potential barriers to SDM, including their participation or lack of participation in treatment (Chong, Aslani, & Chen, 2013). In

addition, psychiatrists rate lack of insight about illness as the most important barrier to SDM (Shepherd, Shorthouse, & Gask, 2014). Psychiatrists may view shared decision-making as less valuable for patients with schizophrenia who have diminished insight into their illnesses (Hamann et al., 2009). Patients, on the other hand, identify the fear of being judged, their perceptions of being inadequate, and having a history of substance use as barriers to their participation in medical decisions (Eliacin, Salyers, Kukla, & Matthias, 2015).

Consumer Engagement

Epidemiological data suggest that a significant portion of those suffering from mental health problems do not seek treatment or drop out of treatment prematurely (SAMHSA, 2012). Reasons for seeking or not seeking treatment are complex and multi-systemic. An important barrier to seeking mental health care is the stigma that exists on personal, societal, and provider levels (Corrigan, Druss, & Perlick, 2014). People who internalize prejudicial views of SMI, such as "I'm crazy" or "mentally ill people are dangerous," are often less likely to seek care (Corrigan et al., 2014). Furthermore, there are mixed results on the impact of coercion on treatment engagement, but the overarching message seems to be that convincing people to seek services using more coercive measures, or escalating to threats of involuntary commitment, is related to service disengagement (Corrigan et al., 2014; Stanhope, Marcus, & Solomon, 2009). There is evidence to suggest that formal and informal coercion in the form of involuntary hospitalization and reminders about possible legal consequences of disengagement can serve as system barriers to consumers seeking care voluntarily (Swartz, Swanson, & Hannon, 2003).

Recognizing that client disengagement and lack of participation in services are serious problems, especially following deinstitutionalization, providers began to develop more flexible and multidisciplinary treatment approaches in the community, such as assertive community treatment (ACT; Bond & Drake, 2015). Meeting consumers where they live and helping them with a more holistic approach that addresses needs such as housing, employment, social and spiritual engagement, and physical and mental health concerns is in line with the recovery movement. Nevertheless, there is significant variability in the way that programs operate, and with enhanced flexibility comes the opportunity for less helpful approaches, such as coercive and stigmatizing practices (Bond & Drake, 2015; Corrigan et al., 2014; Stanhope et al., 2009). Client engagement and recovery-oriented care are intertwined because "old," or "traditional," views of mental health postulate that clients must attend treatment to get better, and incentivizing and convincing—even coercing—engagement may be better than "allowing" disengagement (Slade et al., 2014). Modern concepts of recovery recognize the inherent limitations of what mental health professionals can provide and seek to adjust the attitude toward engagement to one of meeting the client where they are (Slade et al., 2014).

Recent recommendations to address low engagement include the use of shared decision-making, person-centered care, and recovery-oriented language and approaches, as well as additional tools such as using technology with smartphones and electronic medical records, apps, and texting communication to enhance communication and connectedness (Dixon, Holoshitz, & Nossel, 2016). Also, increasing peer support, the use of wellness recovery action plans (WRAP), and including the use of the Cultural

Formulation Interview introduced in the *DSM-5*, are ways that could be pursued to increase connectedness and engagement (Dixon et al., 2016).

For adults with psychosis, one study found that a particularly salient factor in their treatment engagement was the degree that treatment providers focused on their life goals (Lucksted et al., 2015). Similar data were found in a study examining mental health workers' perceptions of young adults, showing that client-provider relationships are seen as an essential ingredient in maintaining treatment engagement (Cole, Kim, Lotz, & Munson, 2016). In a recent review of literature, Holdsworth, Bowen, Brown, and Howat (2014) found that client engagement is influenced heavily by therapist factors, including therapist interpersonal skills, the therapeutic alliance, and strengths-based approaches. This suggests that there is an established connection between lower client engagement and lack of therapist adherence to recovery-oriented care that is consistent with recovery principles. In a study of 588 participants with SMI ranging across six countries in Europe, patient-rated involvement in treatment decisions was significantly associated with recovery progress, but not always in positive ways (Loos et al., 2017). Participants who rated themselves as having active involvement were more likely to regress in their recovery efforts in comparison to participants who rated themselves as having shared or passive involvement in treatment decisions (Loos et al., 2017). This study serves to further illustrate the complicated relationship between client-provider relationships, client engagement, and treatment decisions.

A client's level of insight into his or her illness status is another important variable in considering consumer engagement, SDM, and recovery-oriented services. For clients with schizophrenia, higher levels of insight are significantly associated with more

positive attitudes toward medication, better community functioning, and fewer symptoms of schizophrenia and depression (Mohamed et al., 2009). The client presented in Case Vignette 3 of the present study may have been perceived by participants as having less insight than the other cases due to his rejection of treatment. Mental health professionals may see it as their role to protect their clients and make decisions for them when their insight is impaired; however, there is evidence that this impairs the therapeutic relationship, which can have a detrimental effect on client engagement (Kvrgic, Cavelti, Beck, Rüsch, & Vauth, 2013).

Summary

The emergence and continued popularity of the recovery model is a much-needed influence in the mental health field, promoting the empowerment of people with SMI and substance use problems. This patient population accounts for a disproportionate amount of healthcare costs, is more likely to be victimized by violence, and make up a growing percentage of incarcerated people in the United States (Bloom, 2010; Dickey & Azeni, 1996; Sells et al. 2003). Public policy shifts have mandated health systems to embrace the recovery principles, but the implementation of the recovery principles in day-to-day clinical practice is not well studied.

There is some evidence that positive attitudes toward strengths-based, recovery-oriented treatment are associated with corresponding recovery-oriented practices (Song, 2007). Mental health professionals who work with people who have SMI may struggle to implement recovery-oriented practices when weighing their perceptions of risk to self and others that symptomatic clients may present (Tickle et al., 2014). Additionally, taking a holistic approach that addresses concerns related to employment, community

activities and integration, spiritual concerns, educational needs, and mental and physical

health needs might be perceived as overwhelming and unrealistic by providers (Davidson

et al., 2006). Despite the barriers to implementing recovery-oriented services, there is

evidence that recovery-oriented transformations at a systemic level are possible and

helpful to vulnerable populations with SMI (Malinovsky et al., 2013; Sowers, 2005;

Young & Ensing, 1999).

Patient engagement is a particularly vexing problem for mental health providers

trying to effect change and helping their clients who suffer from SMI (SAMHSA, 2012).

To combat issues related to patient disengagement and lack of participation in treatment,

one hopes that mental health professionals will employ techniques that are patient-

centered and use shared decision-making principles that are in line with recovery ideals

(Durand et al., 2014). Nevertheless, there is evidence that mental health professionals

may be more likely to see consumers who are more symptomatic as less competent and

capable of making informed decisions about their health (Chong et al., 2013). Clients

with SMI tend to prefer more participation in medical decisions, especially regarding

psychiatric medication, in comparison to the degree of participation they are afforded

(Adams et al., 2007).

The constructs of patient engagement, SDM, and recovery principles in health

system transformations are studied independently, but their convergence is not studied

rigorously as a way to determine how recovery-oriented care can progress. Considering

the interrelatedness of patient engagement, shared decision-making, and recovery-

oriented clinical work, the field of recovery-oriented care could be further elucidated by

the present study, as it examined the degree of recovery-oriented clinical decision-

making, depending on how much mental health professionals know and endorse recovery

principles, as well as on how engaged each participant's client is perceived to be in

treatment.

Chapter 3: Research Questions and Hypotheses

Research Questions

Research question 1. For mental health practitioners who work with people who have SMI, what is the relationship between their knowledge and attitudes of recovery principles and their emphasis on those recovery principles in clinical decision-making?

Research question 2. To what extent do mental health professionals apply recovery-oriented principles depending on clients' level of willingness to participate in "traditional" treatment approaches, such as medication and counseling?

Research question 3. Does the combination of recovery knowledge and attitudes with the degree of client willingness to participate affect the degree of recovery-oriented clinical decisions being made?

Hypotheses

Hypothesis 1. It was hypothesized that there would be a significant difference in the degree of recovery-oriented clinical decision-making depending on the level of recovery knowledge and attitudes. Participants with a higher level of recovery knowledge and attitudes were hypothesized to make more recovery-oriented clinical decisions compared to participants with lower levels of recovery knowledge and attitudes.

Hypothesis 2. It was hypothesized that there would be a significant difference between the degree of recovery-oriented clinical decision-making depending on the degree of client willingness to participate in treatment. Cases with a higher degree of willingness to participate were hypothesized to elicit a significantly higher degree of

recovery-oriented clinical decision-making as compared to cases with lower levels of portrayed willingness to participate.

Hypothesis 3. It was hypothesized that there would be a significant interaction effect between the level of recovery knowledge and attitudes and the degree of client willingness to participate on the degree of recovery-oriented clinical decision-making. Participants with higher recovery orientations were hypothesized to make more recovery-oriented decisions regardless of the patient presentations as compared to the low recovery knowledge and attitudes group, who were hypothesized to respond to the different case vignettes with different degrees of recovery-oriented decision-making.

Chapter 4: Method

Overview

The present study gathered information from mental health practitioners who have a master's degree or higher and who work with individuals diagnosed with SMI. Participants worked in a variety of treatment settings with different training and institutional emphasis on the recovery principles. The participants in this study were asked to answer questions about how they would address a hypothetical case vignette and then answer questions about their knowledge and attitudes of the recovery principles. Mental health practitioners were given one of three hypothetical case vignettes for the first part of the online survey. They then completed the Recovery Clinical Decision Making Instrument (RCDMI) , which was constructed by the author and asks 20 specific questions about how the clinician would proceed with the case described in the vignette (Appendix B). The participants then answered all 20 questions from the Recovery Knowledge Inventory (RKI; Bedregal, O'Connell, & Davidson, 2006) to assess their knowledge and attitudes about the recovery model.

Design

The present study used an experimental design with random assignment of one of the independent variables (type of case vignette) and no random assignment for the other independent variable (recovery knowledge/attitudes). This study focused on two independent variables, knowledge and attitudes of the recovery principles and degree of client willingness to participate in treatment (also known as "engagement" for the purposes of this study). The knowledge and attitudes of recovery principles was assessed with the RKI (Bedregal et al., 2006) and the degree of client willingness to participate in

treatment was determined by the type of hypothetical case vignette presented to the

participant. This study used three case vignettes, each with the same basic components

(an individual presenting with psychotic symptoms) but with varying degrees of

willingness to engage in traditional treatment, including taking medication and engaging

in counseling sessions. The dependent variable was the degree of recovery-oriented

decision-making used by the participants in response to the hypothetical cases with which

they were presented. The degree of recovery-oriented decision-making was analyzed

using the RCDMI. The RCDMI produced a continuous variable indicating the degree of

recovery-oriented emphasis the participant used in making choices with the case vignette.

Higher scores indicated more recovery-oriented clinical decision-making. Some general

qualitative data were also gathered regarding any additional points or explanations the

participants would like to make.

Participants

The present study obtained information from voluntary participants made up of

mental health professionals who identified as providing treatment to individuals with

SMI and who work in a variety of settings, including but not limited to inpatient

hospitals, outpatient facilities, partial hospital programs, intensive outpatient programs,

and residential settings. For the sake of clarity in research and study design, the present

study focused on participants who work with adults with schizophrenia or psychosis from

an unknown etiology. This study analyzed data from participants who have a range of

training backgrounds and who work in different organizations that they indicated place a

different degree of explicit or implicit emphasis on the recovery principles. Potential

sites were identified through networking connections with national recovery

organizations and online searches. A snowball effect was used to gather participants for this study using electronic communication (e-mail and social media) to reach out to potential participants who work in a variety of settings. Local connections in and around Philadelphia, Pennsylvania were also used to obtain participants. An online platform (www.SurveyMonkey.com) was used to gather data from all participants.

A total of 134 people started the online survey initially. Twelve potential participants were disqualified immediately on the basis of either not being 18 years old, not yet having a master's degree, or not working with clients who have SMI. Twenty other participants stopped at some point in the survey, many of them after answering only some of the demographic questions, resulting in 102 total participants who completed the survey making their responses available for data analysis.

Inclusion and exclusion criteria. Mental health practitioners with a master's degree or higher who work with adults with serious mental illnesses were eligible to participate in this study. This included individuals, both licensed and non-licensed, with master's degrees in psychology, counseling, or social work, or doctoral degrees in psychology or related fields. Additionally, physicians and nurse practitioners and other professionals with advanced degrees and specific training in psychiatric practice were permitted to participate in the study.

Individuals with less than a master's degree were not included in this study. Furthermore, other individuals working at the identified sites, such as nurses, support staff, front desk staff, and mental health technicians were excluded from the present study. Participants who failed to complete the surveys in their entirety were excluded from data analysis.

Recruitment. Links to the online survey were provided to the department directors of the identified agencies via e-mail. The e-mail requested that the survey be forwarded to the identified participants, and included specific information about the voluntary nature of the present research study. Instructions also explained the confidential and anonymous nature of the study, and stipulated that completing or not completing the study would not have any adverse effects on the participants' employment. E-mails were also sent to colleagues and asked to be forwarded to agencies and individuals who are likely to meet the inclusion criteria for the present study. Finally, the link and information about the voluntary nature of the study were provided on social media sites, including Facebook and LinkedIn.

Measures

Upon determining that an eligible participant met inclusion criteria, the present study gathered demographic data on the following information: highest level of education achieved, work setting (outpatient, inpatient, intensive outpatient, partial hospital program, residential, or other), whether his or her agency purports to be recovery-oriented, age, gender, ethnicity, city of residence, state of residence, years of post-graduate experience, theoretical orientation, formal training or coursework in recovery-oriented practices, and whether the participant or a family member has ever been diagnosed with a mental illness.

This study used two measures, the RCDMI and the RKI (Bedregal et al., 2006. The RKI is a 20-item questionnaire designed to assess the knowledge and attitudes about the principles of recovery-oriented clinical practice. Each item is measured on a Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Higher scores indicate

greater understanding and acceptance of the recovery principles. This measure is used in research as a tool for a wide range of practitioners in the healthcare field to identify areas where training may be needed, and to determine the effectiveness of training (Cleary & Dowling, 2009; Crowe et al., 2013; Davidson et al., 2008; Feeney, Jordan, & McCarron, 2013).

The RKI has several reverse-scored items, and is designed to reduce the effects of socially desirable answers that could skew the results. The lack of face value likely contributed to the validity of the measure, as participants were not as inclined to give answers they perceive as "correct" or more desirable. The RKI is not copyrighted and is available for public use, but the primary author was contacted, and permission was obtained for its use in the present study, in addition to information about the measure's scoring and specific item factors. The RKI's 20 items were developed by Bedregal, O'Connell, and Davidson (2006) by implementing a principle component factor analysis, which revealed four underlying domains, including roles and responsibilities in recovery (seven items, 17% of the variance, Cronbach's α= .81), non-linearity of the recovery process (six items, 13% of the variance, Cronbach's α = .70), the role of self-definition and peer in recovery (five items, 12% of the variance, Cronbach's α = .63), and expectations regarding recovery (two items, 8% of the variance, Cronbach's α = .47). Eigenvalues of the four domains were determined to be 4.96, 2.43, 1.35, and 1.21, respectively. Although the psychometric properties are not ideal, this instrument is one of the few available measures that accurately taps into practitioner knowledge of recovery principles (Williams et al., 2012). Further analysis of the RKI in a Dutch sample indicated acceptable psychometric properties, with "one dimension underlying the

structure of the scale" rather than the four cited by its authors (Wilrycx, Croon, van den

Broek, & van Nieuwenhuizen, 2012, p. 7).

In the present study, similar reliability was found in the four factors of the RKI.

The first factor, roles and responsibilities in recovery, had the highest internal consistency

(Cronbach's α = .81). The second factor, non-linearity of the recovery process, had a

slightly higher internal reliability coefficient than in the initial RKI study (Cronbach's α =

.75). The third factor, role of self-definition and peer in recovery, in the present study

showed a lower internal reliability in comparison to the original RKI study (Cronbach's α

= .58). Finally, the fourth factor, expectations regarding recovery, was found to have

reliability that was slightly lower than the reliability coefficient in the first study of the

RKI (Cronbach's α = .40)). Additionally, overall consistency was calculated for this

study revealing Cronbach's alpha of .86 for the RKI, indicating relatively high internal

reliability. Data from the RKI were analyzed categorically with two groups, "high

recovery knowledge/attitudes" and "low recovery knowledge/attitudes," based on a

median split (*Mdn* = 77.5) dividing the participants evenly.

The RCDMI was created specifically for this study by the principle researcher. It

is a 20-item self-report instrument, with each answer on a Likert scale ranging from 1

(*strongly disagree*) to 5 (*strongly agree*). The questions were designed to correspond to

items from the RKI, except that they capture participant responses to specific

hypothetical case vignette scenarios. The specific questions were developed with the

intention to measure the extent to which participants would emphasize recovery

principles when asked about a specific case vignette. Questions cover recovery

constructs such as individualized care, community integration, non-professional supports,

hope, strengths, pursuit of meaningful activities, and engagement with family and "natural supports." A Likert scale was designed to enhance sensitivity of the measure, and the items were designed to pick up variability in the areas participants would emphasize using. This is particularly important because mental health practitioners are likely to endorse some recovery principles regardless of their training in recovery knowledge. For example, it is not likely that many mental health professionals would completely deny a client's stated choices and goals as important. Some of the items in the RCDMI were reverse-scored to decrease face validity and desirability bias. For example, Item 3, "My primary focus would be on supporting the client to begin or maintain medication use," is designed to identify participants who maintain a one-dimensional, symptom amelioration focus that is antithetical to the recovery focus. If a participant's primary focus is on pharmacological intervention, he or she is ignoring the usefulness of other highly important realms of recovery, such as peer support and finding meaning and purpose.

There were initially 19 items in this measure that were given to a sample of five psychologists who specialize in recovery-oriented practices. They were recruited through the American Psychological Association Recovery Advisory Committee and professional connections by the author and principal investigator. These experts were asked for feedback about the measure to aid in its development and give it more robust construct validity. Feedback was implemented in regard to the wording of the measure and adding one more item to include a question about family and natural supports, making it 20 questions in total. The corresponding case vignettes and a brief description of the study and vignettes were also sent to the recovery experts for feedback (Appendix C).

Feedback included broad consensus from these experts that the vignettes and the measure together tapped the essential constructs measured in the RKI; only minor adjustments were made. Of note, the case vignettes were lengthened and more detail was added so that participants could form a more cohesive conceptualization of the case before responding to questions, as per feedback from one of the experts.

Internal consistency of the RCDMI was measured using Cronbach's alpha to test reliability of the newly created measure. Overall, internal reliability was relatively high (Cronbach's $\alpha = .82$) once one item was removed, bringing the total number of questions back to 19. RCDMI Item 8, "In this case it would be important to help the client accept a mental health diagnosis," was removed, as it detracted from the internal reliability of the scale as a whole. The inconsistent responses to this specific question could be related to broad disagreement about the importance of clients' awareness of their disorders, which is reflected in the literature (Roe & Kravetz, 2003). With Item 8 included, the RCDMI showed lower internal reliability (Cronbach's $\alpha = .77$), so Item 8 was removed. Future use of the RCDMI would benefit from rewording or replacement of Item 8, along with a factor analysis of the items to identify clusters of sub-constructs that might be related. With the exception of Item 8, the individual items all appeared to measure the same construct and added value to the measure. A Pearson correlation was computed to examine the relationship between recovery knowledge and attitudes (RKI) and recovery-oriented clinical decision-making (RCDMI). There was a moderate, positive correlation that was statistically significant between participant scores on the RKI and the RCDMI ($r = .648$, $N = 102$, $p = .000$).

There was, however, some variability in reliability for the RCDMI, depending on which of the case vignettes was selected. Case 1, High Engagement/Participation, showed moderate reliability on the RCDMI scores (Cronbach's α = .78). Case 2, Moderate Engagement/Participation, had the highest internal reliability scores with Cronbach's alpha of .88. Lastly, Case 3, Low Engagement/Participation, showed the least internal reliability on the RCDMI scores with Cronbach's alpha of .77.

Procedure

The study was granted approval of the Institutional Review Board (IRB) at the Philadelphia College of Osteopathic Medicine (PCOM). This entire study was administered via an online survey posted through www.SurveyMonkey.com. Participants were informed about the potential risks and benefits of participating in this study and the confidential and anonymous nature of the study was explained in writing. Participants started by answering demographic questions. Next, the case vignettes were presented, prior to assessing the knowledge and attitudes of recovery principles, so that participants remained relatively unaware of the constructs being analyzed, thereby reducing demand characteristics regarding their clinical decisions about the cases they read. Each participant was given one of the possible three case vignettes to read, which was randomly assigned using SurveyMonkey's page randomization. Case 1 described an individual who was experiencing symptoms of psychosis and who was motivated and willing to participate in medication and psychotherapy (traditional modes of mental health treatment). Case 1 was considered "high in engagement/participation." Based on random assignment, 26 participants responded to Case 1 ($n = 26$). Case 2 described an individual with the same symptoms and interests as the other cases, but that person was

described as being "somewhat open" to engage in medication and therapy, indicating a moderate level of motivation and willingness to engage in treatment. This person expressed some ambivalence about participating in traditional treatment but was willing to speak about treatment choices. Case 2 was considered "moderate in engagement/participation." Based on random assignment, 37 participants read and responded to Case 2 ($n = 37$). Case 3 described the same individual as the other case vignettes, but with no stated willingness to participate in medication or psychotherapy. Case 3 was considered "low in engagement/participation." Based on random assignment, 39 participants were prompted to answer recovery-oriented clinical decision-making questions regarding Case 3 ($n = 39$).

After reading the case vignette, each participant answered a questionnaire regarding clinical choices (the RCDMI) about the case vignette. Finally, each participant was asked to answer the questions on the RKI. At the end of the survey, each participant was allowed to respond freely to a question asking them if they would like to share any other information. The tasks were ordered with the RCDMI first, to minimize priming effects from the RKI, thereby eliciting a more genuine assessment of the degree to which mental health professionals think about and make decisions regarding clients with psychosis.

Chapter 5: Results

Statistical Analysis

A 2x3 Analysis of Variance (ANOVA) was used to determine whether the degree of recovery knowledge and attitudes affected recovery-oriented clinical decisions, whether the degree of client engagement affected recovery-oriented clinical decisions, and whether there was an interaction effect between recovery knowledge and attitudes and client engagement that differentially affected recovery-oriented clinical decisions. The ANOVA was selected to test the proposed hypotheses, as it tests for differences between providers with low or high recovery principle knowledge and attitudes and use of recovery decision-making in the providers' responses to case vignettes. Initially, understanding that inpatient treatment settings could dictate different conceptualizations and, therefore, influence the responses to the questions about the case vignettes, treatment setting was considered as a possible covariate; however, there were not enough participants from inpatient settings ($n = 15$) to test this consideration adequately.

The dependent variable was the total score on the RCDMI (19 questions with total score range of 19-95), indicating the degree of recovery principles endorsed in clinical decisions made with regard to case vignettes. All RCDMI answers added together for each participant yielded a single score consisting of all 19 items added together (with four items reverse scored), in which a higher score indicates more recovery-oriented clinical decision-making.

The first independent variable was divided into two categories, low and high knowledge and attitudes of the recovery model principles, based on a median split (*Mdn* = 77.5). The second independent variable was the type of case vignette. There were

three types of case vignettes based on differences in the client's engagement about medication and treatment. Each participant was presented with one of the three hypothetical case vignettes by random assignment.

Descriptive Statistics

Participant demographics are described in Tables 1 through 6, including level of education, work setting, age, ethnicity, geographic location, years of post-graduate work experience, and theoretical orientation. Overall, the average participant was a mental health practitioner with a master's degree or a higher who works regularly with adults diagnosed with SMI. As described in Table 1, participants varied in their highest level of education, with more master's level professionals ($n = 73$) and fewer doctoral level professionals ($n = 27$) in the sample.

The majority of the participants (72.5%) indicated they work in outpatient settings, which includes regular outpatient treatment, intensive outpatient treatment, and partial hospital treatment settings ($n = 74$). The next largest group of participants indicated they work in inpatient settings (14.7%, $n = 15$). They were followed by individuals working in residential settings (9.8%, $n = 10$) individuals who are not working currently (2.9%, $n = 3$; see Table 2). Participants also reported whether their workplace is considered recovery-oriented, with 75.5% indicating that their workplaces are recovery-oriented ($n = 77$). Additionally, 58.8% of the participants indicated they had attended some training in recovery-oriented care or in the recovery model ($n = 60$).

Table 1

Participant Level of Education

Characteristic	*n*	%
Level of Education		
Ph.D.	15	14.7
Psy.D.	12	11.8
MSW	22	21.6
MA	22	21.6
MS	29	28.4
Other	2	1.9

Table 2

Participant Work Setting

Characteristic	*n*	%
Work Setting		
Inpatient	15	14.7
Outpatient	74	72.5
Residential	10	9.8
Not currently working	3	2.9

Participants varied in age-range, as shown in Table 3. They were 74.5% female ($n = 76$), 23.5% male ($n = 24$), 1% transgender ($n = 1$), and 1% genderfluid ($n = 1$). The majority of the participants (86.3%) identified as White or Caucasian ($n = 88$), as indicated in Table 4. Participants indicated a range of geographical locations (see Table 5), but the majority of them (51%) reported living in Pennsylvania ($n = 52$). A significant portion of the participants (21.6%) reported living in Philadelphia ($n = 22$).

As indicated in Table 6, participants reporting postgraduate experience of 1 to 15 years made up 82.3% of the sample ($n = 84$). Furthermore, a significant percentage (48%) indicated having 1 to 5 years of postgraduate experience following their most recent degrees ($n = 49$), but this did not account for work experience that occurred prior to their most-recent degrees. For example, it was unknown how long they may have worked after obtaining a bachelor's or master's degree before pursuing doctoral training.

Participants endorsed a wide variety of theoretical orientations as summarized in Table 7. More participants indicated they practice cognitive-behavioral therapy (CBT) than any other theoretical orientation (47.1%, $n = 48$). Additionally, many participants indicated they identify with an eclectic/integrative approach (29.4%, $n = 30$).

As noted in Table 8, there was some variability in the data depending on which of the case vignettes was presented.

Table 3

Participant Age Ranges

Characteristic	*n*	%
Age		
20-24	1	1
25-30	28	27.5
30-34	23	22.5
35-39	13	12.7
40-44	9	8.8
45-49	5	4.9
50-54	6	5.9
55-59	9	8.8
60 or above	7	6.9

Table 4

Participant Ethnicity

Characteristic	*n*	%
Ethnicity		
White or Caucasian	88	86.3
Hispanic or Latino	2	2
Black of African-American	8	7.8
Asian/Pacific Islander	2	2
South Asian	1	1

Table 5

Participant Geographic Location of Residence

Characteristic	*n*	%
State		
California	3	2.9
Connecticut	2	2
Delaware	1	1
Florida	2	2
Hawaii	1	1
Illinois	1	1
Kentucky	1	1
Massachusetts	1	1
Michigan	5	4.9
Minnesota	4	3.9
New Jersey	12	11.8
Oklahoma	1	1
Oregon	1	1
Pennsylvania	52	51
Rhode Island	1	1
Texas	2	2
Virginia	6	5.9
Wisconsin	1	1

Table 6

Participant Post-Graduate Years of Experience

Characteristic	*n*	%
Years of Experience		
1-5	49	48
6-10	23	22.5
11-15	12	11.8
16-20	5	4.9
21-25	5	4.9
26-30	4	3.9
30 or more	3	2.9

Table 7

Participant Theoretical Orientation

Characteristic	*n*	%
Theoretical orientation		
Cognitive-Behavioral Therapy (CBT)	48	47.1
Psychodynamic	9	8.8
Humanistic	7	6.9
Family Systems	5	4.9
Integrative/Eclectic	30	29.4
Dialectical Behavioral Therapy (DBT)	1	1
Interpersonal	1	1
Relational	1	1
Solution Focused	1	1
Strength Based Perspective	1	1
Trauma Informed	1	1
No Theoretical Orientation	1	1

Table 8

Recovery Knowledge Inventory (RKI) and Recovery Clinical Decision Making Inventory (RCDMI) Descriptive Statistics by Case Vignette

Characteristic	RKI Mean	RKI Std Dev	RCDMI Mean	RCDMI Std Dev
Case 1: High Engagement	75.38	7.30	79.62	6.10
Case 2: Moderate Engagement	78.49	9.70	79.95	8.23
Case 3: Low Engagement	78.23	9.63	81.74	6.22

Results of Primary Research Questions and Hypotheses

To test Hypotheses 1, 2, and 3, a two-way ANOVA was completed. This analysis showed there were significant main effects between recovery knowledge and attitudes and recovery-oriented decision-making, indicating that Hypothesis 1 was supported by the data. The ANOVA, with recovery knowledge and attitudes (high or low) and degree of client engagement/participation (high, moderate, low) as between-subjects factors, revealed main effects of recovery knowledge and attitudes, ($F(1,96) = 12.947$, $p = .001$, $\eta^2 = .119$). Participants' scores did not exhibit any main effects between client engagement/participation, which indicated that Hypothesis 2 was not supported ($F(2,96) = 1.011$, $p = .368$, $\eta^2 = .021$). Participants' scores also did not exhibit any interaction effects between recovery knowledge and attitudes and patient engagement/participation on recovery-oriented decision-making, which indicated that Hypothesis 3 was not supported ($F(2,96) = .832$, $p = .438$, $\eta^2 = .017$; see Table 9).

These results support the notion that participants who exhibited more recovery knowledge and attitudes were significantly more likely to engage in recovery-oriented decisions in response to the hypothetical case vignettes. The data also show that the level of recovery-oriented decision-making was not dependent on the degree of client engagement or willingness to participate in treatment. Participants applied the same degree of recovery-oriented clinical decisions in response to the case vignettes regardless of the degree of client engagement/participation. Although results should be interpreted with caution, the data show that knowledge and attitudes about recovery principles, and presumably some endorsement of those principles, results in greater frequency of recovery-oriented decision-making in response to case vignettes, regardless of how

willing the patient is to engage in traditional treatment modalities of medication and

psychotherapy.

Table 9

Between-Subjects Effects with Recovery-Oriented Clinical Decision Making as Dependent Variable

Source	SS	df	MS	F	Sig $(_p)$	η^2
RKI	554.611	1	554.611	12.947	.001	.119
Engagement	86.635	2	43.317	1.011	.368	.021
RKI*Eng	71.322	2	35.661	.832	.432	.017
Error	4112.245	96	42.836			
Total	666720.000	102				

Additional Analysis

Additional analysis was conducted to explore the hypotheses in more depth. This

additional analysis was warranted on the basis of negative skew in the dependent variable

(RCDMI, Skewness = -1.316), which violates one of the assumptions of the ANOVA

(Field, 2009). Therefore, a nonparametric alternative was used that does not require a

normally distributed dependent variable. Although there are few empirically valid

statistical tests that fit this particular data-set, there is reasonable support for the use of an

aligned rank transformation wherein the dependent variable is converted from a

continuous variable to an ordinal rank variable (Wobbrock, Findlater, Gergle, & Higgins,

2011).

Following transformation of the dependent variable, the ANOVA with recovery

knowledge and attitudes (high or low) and degree of client engagement/participation

(high, moderate, low) as between-subjects factors revealed main effects of recovery

knowledge and attitudes, ($F(1,96) = 10.314$, $p = .002$, $\eta^2 = .097$), no main effects of client

engagement/participation ($F(2,96) = .673$, $p = .512$, $\eta^2 = .014$), and no interaction effects

of recovery knowledge and attitudes and client engagement/participation ($F(2,96) = .601$,

$p = .550$, $\eta^2 = .012$; see Table 10). In short, transforming the dependent variable to a rank

order adjusted the statistical outcome, but not in a significant way. Participants who

displayed greater recovery knowledge and attitudes were again more likely to employ

more recovery-oriented clinical decisions in response to the hypothetical case vignettes,

regardless of what level of client engagement they were addressing.

Table 10

Between-Subjects Effects with Recovery-Oriented Clinical Decision Making as
Dependent Variable Following Rank Order Transformation

Source	SS	df	MS	F	Sig $(_p)$	η^2
RKI	8163.672	1	8163.672	10.314	.002	.097
Engagement	1065.906	2	532.953	.673	.512	.014
RKI*Eng	951.600	2	475.800	.601	.550	.012
Error	75984.576	96	791.506			
Total	358666.000	102				

One more alternative analysis was conducted to address the same problem of negative skew in the dependent variable (RCDMI) using a different method. Participants who scored more than two standard deviations ($SD = 6.48$) below the mean ($M = 80.53$) in the dependent variable (RCDMI) were removed from the data set. This included five participants who scored at 67 or below on the RCDMI. These participants were considered outliers for the purposes of this analysis. Following transformation of the dependent variable by removing outliers, the ANOVA with recovery knowledge and attitudes (high or low) and degree of client engagement/participation (high, moderate, low) as between-subjects factors revealed main effects of recovery knowledge and attitudes, ($F(1,91) = 6.233$, $p = .014$, $\eta^2 = .064$), no main effects of client engagement/participation ($F(2,91) = .432$, $p = .651$, $\eta^2 = .009$), and no interaction effects of recovery knowledge and attitudes and client engagement/participation ($F(2,91) = .763$, $p = .469$, $\eta^2 = .016$; see Table 11). In summary, adjusting the data in the dependent variable (RCDMI) by removing participants who were more than two standard deviations from the mean resulted in normally distributed data on the dependent variable (RCDMI, Skewness $= -.057$), but not in any significant differences regarding the final ANOVA.

Table 11

Between-Subjects Effects with Recovery-Oriented Clinical Decision Making as Dependent Variable Following Removal of DV Outliers (N = 97)

Source	SS	df	MS	F	Sig $(_p)$	η^2
RKI	4652.951	1	4652.951	6.233	.014	.064
Engagement	644.648	2	322.324	.432	.651	.009
RKI*Eng	1139.252	2	569.626	.763	.469	.016
Error	67929.720	91	746.480			
Total	358612.000	97				

Qualitative Data

Participants were given an optional, open-ended question at the end of the online survey to give any additional input they wanted. Fifteen participants opted to include information. Out of those 15 responses, one was a smiling face, one said "none," one clarified that the participant was a medical doctor, and three were generally positive responses about how the study was considered by the participants as "important" and "great." The remaining responses included six in which the inherent difficulty in answering the questions was discussed in some way. Participants in this category highlighted how "recovery is all about individualization" and discussed how variables such as peer support and symptom management might be emphasized to varying degrees based on client preference. These responses were consistent with recovery research that speaks about the inherent challenge of quantifying a process that is highly personal and individualized. Two participants in this category discussed how the term recovery was misleading to them at first, as they thought it pertained to drug and alcohol treatment. The remaining three responses were similar because they offered some type of feedback

to the researchers. One recommended using stages of change as a way to "gauge a

clinician's understanding of recovery." Another emphasized how trauma-informed care

is "critical" in addition to person-centered care. The remaining participant in this

category provided feedback that he or she views "the recovery model as an adjunct to

clinical treatment." Overall, qualitative data was divided into three categories: (a)

encouragement/positive view of the study, (b) confusion about terminology, and (c)

feedback about the topic and inclusion of related constructs.

Chapter 6: Discussion

Summary and Implications of Findings

Recovery principles grew out of a movement by practitioners, consumers, and lawmakers who saw a need to implement standards for ethical and respectful treatment of people with SMI. The recovery principles emphasize respect, autonomy, personal responsibility, self-directedness, individualized care, non-professional support, community integration, and other related ideals to practice in working with all clients, especially those who are most vulnerable.

Prior to this study, there has been little evidence in the literature regarding how mental health practitioners utilize their knowledge and attitudes of the recovery principles with specific cases. Training programs for practitioners vary significantly and the demands and expectations of the work environment also vary greatly. Some systems of care are likely to place a much higher degree of emphasis on recovery principles than others (Davidson, Tondora, O'Connell, Kirk, Rockholz, & Evans, 2007). Additionally, it is unknown to what degree recovery knowledge and attitudes translate to intervention decisions that maintain the ideals articulated in the recovery model. This study's aim of gaining more information about how practitioners decide to implement their knowledge and attitudes offered important information on how mental health professionals may use recovery principles in their practice.

A 2x3 ANOVA was conducted to determine main effects and interaction effects of the two independent variables (recovery knowledge and attitudes and patient engagement/participation) on the dependent variable (recovery-oriented clinical decisions). Using a measure of recovery knowledge and attitudes (the RKI), a

randomized case vignette with differing levels of client participation in treatment, and a measure of recovery-oriented clinical decision-making (the RCDMI), this study found that the knowledge and attitudes of recovery principles accounted for approximately 11% of the variance in the degree of recovery-oriented decision-making. This means that participants who displayed more knowledge and attitudes of recovery principles were statistically significantly more likely to respond to hypothetical cases in a more recovery-oriented fashion than those who displayed less knowledge and attitudes of recovery principles.

No main effect was found regarding the impact of client engagement on recovery-oriented clinical decisions. This means that participants did not engage in any more or less recovery-oriented decision-making depending on the degree of client engagement. Furthermore, there was no interaction effect between recovery knowledge and attitudes and client engagement, which demonstrated that participants were not any more or less influenced by the degree of patient engagement, regardless of their level of recovery knowledge and attitudes. This is useful in that it suggests a likelihood that when understood, recovery principles are integrated into practical decision-making scenarios when mental health professionals are faced with hypothetically "real" cases. There is evidence to suggest that mental health professionals' attitudes become more recovery-oriented following training, and the present study expands on that by suggesting that mental health professionals are likely to act in ways that are more recovery-focused (Salgado, Deane, Crowe, & Oades, 2010).

An important aspect of the present study was the finding that participants tended to have a relatively positive view of recovery principles overall, and their clinical

decisions were reported to be in line with those views regardless of the level of client

engagement. This implies that mental health professionals who know about recovery

principles and are committed to practicing them are likely to do so in ways that are

relatively consistent across different patient characteristics. Results should be interpreted

with caution because they are hypothetical and, additionally, are not likely generalizable

to a variety of other client problems other than psychosis as the primary presenting

problem, but the results are encouraging nonetheless. Additionally, the present study

lends further support for the notion that training in recovery-oriented practices can have a

direct impact on client care, particularly with an historically underserved and vulnerable

client population.

Limitations

The present study seeks to contribute to the empirical data regarding recovery

principles by placing a particular focus on mental health practitioners and analyzing their

propensities for applying these principles in practices. Nevertheless, the study was

limited because of the possibility of self-selection and social desirability biases in how

participants answered questions. Participants who are more interested in recovery

principles may have recognized the word "recovery" in the title of the study and might

have been more likely to participate. Given the relatively high degree of recovery

knowledge indicated by the average participant in this study, it is quite possible that

people who participated already had favorable attitudes toward recovery principles. Out

of a range of possible scores from 19 to 95, the mean score of the RCDMI was 80.55.

Revision of the RCDMI with factor analysis and re-working of Item 8 might result in a

more sensitive measure that can capture variations in recovery-focused clinical work.

For example, in the development of the RKI, many of the items were reverse-scored and worded in such a way that should reduce some of the biased answering, and the RKI had the benefit of factorial analysis to remove items that were not as salient in assessing recovery knowledge and attitudes (Bedregal et al., 2006).

Initial analysis revealed an ideal number of participants would have been at least 158 in order to have sufficient statistical power to detect significant between-group effect size at the recommended .80 level (Cohen, 1988); however, only 102 participants completed the study ($N = 102$), which had an effect on the post-hoc observed power of the main effects of client engagement/participation, as well as the interaction effect of recovery knowledge and attitudes and client engagement/participation, which resulted in power of .222 and .189, respectively. In comparison, the post-hoc observed power for the first main effect, recovery knowledge and attitudes, which had more participants in the two levels of the independent variable as opposed to three groups of differing client engagement/willingness, was .945. Therefore, it is quite possible that more significant differences between groups might be found if more participants had completed the study, or if the second independent variable (client engagement/participation) was divided evenly into two groups as opposed to three.

It is possible that clinicians can arrive at recovery-oriented decisions about hypothetical cases without formal knowledge or training in the recovery principles. This could indicate that recovery principles are embedded inherently in clinical training or are reinforced by work experiences with individuals with SMI. Furthermore, the term recovery could be misleading to some, as they might be unfamiliar with the inference that this study is focused specifically on mental health recovery. It is possible that some

participants might have responded with substance use recovery in mind, which may have skewed their responses.

Factors that might also affect clinical decisions and choices could have to do with practitioners' experiences with systemic barriers. For instance, a clinician might endorse the idea that his or her client who has a SMI would benefit from participating more in the community, even possibly getting a job, but he or she may put a lot more emphasis on symptom management, as that is more in line with his or her role. Furthermore, the clinician may be unaware of resources for the client to increase community integration, which keeps his or her clinical work more narrowly focused on symptom management, thereby reinforcing a more traditional treatment approach. This approach could be more indicative of a systemic limitation than an individual mental health professional's attitude about the clinical approach he or she would like to take with clients. Nevertheless, that could be a useful area to explore in greater depth by asking mental health professionals about their perceptions of systemic limitations that might interfere with a recovery-oriented approach.

The present study was limited in its ability to produce generalizable results about clinical decision-making due to the complexity of factors that contribute to clinical decisions. This study focused on exploring whether knowledge and attitudes of the recovery model principles translated to applying those principles with three separate hypothetical cases, but those three cases only represented a small sample of the types of challenges practitioners face in the field. The study also was limited in its generalizability because it drew largely from a sample of clinicians in the Philadelphia region (21.6% in Philadelphia but more in surrounding areas), where mental health

programs have a substantial amount of exposure to the recovery model principles due to

the recovery transformation efforts of Department of Behavioral Health and Intellectual

disAbility under Arthur Evans, a nationally recognized leader in recovery. Previous

exposure to the recovery model principles might create a ceiling effect regarding

recovery knowledge and attitudes, which would prevent a true comparison of the degree

of recovery knowledge and attitudes different practitioners have. Results from this study

might have demonstrated such a ceiling effect. Generalizability may also be limited due

to other variables not being representative of the population of mental health

practitioners. For example, almost three out of four participants in this study were

women. If the sample included more men, it is possible that the results might have

changed. Men may be more likely to take a more directive and paternalistic view of

clients who are impaired, opting to make more of their decisions for them (Shields &

McDaniel, 1992). Additionally, the study looked at recovery knowledge but did not

examine whether prior training in recovery principles had a significant impact on

recovery knowledge. Roughly half the participants in this study were within five years of

their most-recent graduate degree, making the sample weighted to a relatively

inexperienced group of mental health professionals. It is possible that many of the

participants in this study held idealistic viewpoints about recovery principles, but that

does not necessarily translate to recovery-oriented treatment. A less-experienced sample

of mental health professionals could also mean they have experienced fewer systemic

barriers and are less jaded than more experienced professionals. Additionally, the vast

majority of the participants in this study were Caucasian. Cultural viewpoints within

recovery were not discussed or analyzed explicitly, so differences in provider and

consumer cultural backgrounds (including religion, spiritual beliefs, ethnicity, race, and other variables) could have had a differential effect on the results. For example, some consumers may prefer more emphasis on spiritual goals, but that was only addressed as a small component of the RCDMI.

Another limitation of this study lies in the measurement of clinical decisions. Using vignettes in research is shown to be highly useful in many instances, but vignettes are only an approximation of "real life" and are inherently limited by that fact (Hughes & Huby, 2012). There is a risk that the participants in this study gave reasonable and well-thought answers about what clinical directions they would like to take with the hypothetical case with which they were presented, but that is not necessarily in line with what they would do in their actual work environment. This can only be an estimation of their decision-making processes and is separate from some of the real-world influences they might experience. For instance, a mental health professional might give a highly recovery-oriented response in the present study, but in his or her work environment, her or she may have to contend with pressures from other members of the treatment team such as physicians, nurses, and mental health technicians, as well as managed care and other possible stakeholders that could influence how treatment is approached. In reality, a mental health professional working with someone who has SMI might be considering the potential risk that the individual could pose on the milieu, including the staff, if he or she is in an inpatient environment, and that can have a profound effect on how decisions about treatment issues like medication adherence are approached.

Future Directions

It is recommended that future research continue to support and elucidate the aspects of the recovery model so that flexible and scientifically valid definitions of recovery can be used in training programs and in the research. Future research could further inform clinical practices by studying the impact of recovery principles in guiding clinical choices. This could be accomplished by evaluating recovery-oriented clinical practices through observation of groups of participants through controlled psychotherapy research and supervision practices. The present study has implications for clinical training, as it further justifies incorporating recovery principles into case formulations so that recovery-oriented decisions are made regardless of how "challenging" the patient is. "Real-world" equivalents of this study would better address some of the constructs that were studied, if they included rating of clients' perceptions of recovery-oriented treatment in addition to observer and practitioner ratings, so that recovery in clinical practice could be better understood from multiple viewpoints. The same method of evaluation could be used to analyze similarities and differences in perception and practice for clients struggling with substance use problems and co-occurring mental health and substance problems.

Another area where research could be fruitful would be with organizations and systems of care. More research is needed to build on recommendations for how systems of care can implement services that are recovery-oriented and sustain organizational expectations of recovery-oriented care (Anthony, 2000). The present study's focus on individual practitioners can inform future research to help guide organizations, outpatient clinics, hospitals, and other programs in implementing recovery-oriented services. This

can be accomplished by emphasizing the importance of educating clinicians so they have greater recovery knowledge and attitudes, which may translate to more recovery-oriented service provision. Such a study would emphasize the importance of not only teaching recovery principles, but of integrating them into clinical practices specifically. Recovery integration is accomplished when providers use a combination of training, supervision, monitoring, reporting on outcome measures and provider measures, and organizational culture transformation.

By considering systems of care, future research could also focus on the interdisciplinary nature of mental health care provision. This is particularly true in inpatient settings when the majority of treatment contact is with mental health technicians and nurses rather than master's level mental health professionals. It is just as important that front-line staff have training in recovery principles as it is for the "mental health professionals" to have that training. Inpatient units may present unique barriers to training staff members who have daily contact with the most symptomatic clients. For example, frequently hospitalized clients are not necessarily a representative sample of people with SMI, and they can present with a vast array of challenges for the front-line as well as the clinical staff. It is likely to be more difficult to highlight a client's right to self-directedness and shared decision making when that client acts in unpredictable or assaultive ways, or if he or she is viewed by the staff as intentionally disrespectful or demeaning. Studying the effects of recovery-focused training on the attitudes, beliefs, and practices of front-line staff working in inpatient settings would be a valuable addition to the recovery literature.

Data from the present study suggested that participants working in inpatient settings answered the RKI and RCDMI with slightly lower scores. Although there were not enough participants from inpatient settings to run a statistically sound analysis, future studies could look at the application of recovery principles in different treatment settings. The definition of recovery is flexible in part because it depends on individual perceptions, setting, and context. For example, a mental health professional can fully recognize the importance of self-determination in recovery but advocate for involuntarily hospitalizing someone who is intent on ending his or her own life. Recovery principles have to be balanced with the understanding of risk and the necessity to, at some point, limit people's choices and freedom if they pose a danger to themselves or others. Providers are trained to recognize an ethical imperative to limit choices in high risk situations, and legal precedent has indicated that mental health professionals can be held liable if they do not take specific steps to prevent their clients from harming themselves or others. Recovery principles emphasize a rethinking of the balance to allow for more risk of failure in some instances, but recognizing that there are limits.

The present study offered a mechanism for feedback or additional qualitative information in the final question of the survey. One participant wrote "the recovery model is fine as an adjunct to clinical treatment. Dying alone in your house or on the street is not recovery." This represents a fundamental misunderstanding about what the recovery principles are because the principles outline a comprehensive philosophy, based in person-centeredness, that cannot be separated as an "adjunct." Recovery is an integral part of the clinical care, not a separate service or intervention. This misunderstanding highlights an important perspective that is often a barrier to recovery transformation.

This perspective is also why context matters in the application of recovery-focused clinical work and why future studies should examine recovery in different treatment settings with different disciplines in the treatment team. Future efforts to integrate recovery-oriented practices must take into account the need to address barriers in practitioner attitudes in addition to focusing on systemic changes. Advocacy can have a major role in reducing ill-informed viewpoints about what recovery means. Mental health professionals, researchers, consumers, and natural supports and family members all have a role in speaking out about how the mental health system can improve its treatment of consumers with serious and, at times, challenging illnesses.

Conclusions

Mental health professionals providing recovery-oriented treatment are following an ethical imperative to treat their most vulnerable clients and, indeed, all of their clients, with respect. The recovery principles of self-directedness, autonomy, personal responsibility, hope, individualized care, non-treatment supports, community integration, and other interrelated constructs are critical to providing humane treatment. A recovery-oriented avenue to interact with clients in a reciprocal and respectful way, known as SDM, has empirical support. Clients with SMI also struggle with maintaining treatment engagement for a number of reasons, so using SDM techniques and recovery-oriented practices could be a useful way of improving client participation by enhancing the therapeutic relationship.

The present study demonstrated that higher levels of recovery knowledge and attitudes are associated with more recovery-oriented clinical decision-making regardless of the degree of client engagement. Although these results should be interpreted with

some caution due to methodological limitations, the overall message is encouraging and offers support for the notion that exposure to recovery concepts and training is likely to have a direct impact on how practitioners engage in important treatment contact and decisions with their clients. Furthermore, the data from this study suggest that use of recovery-oriented treatment planning and intervention occur at the same rate regardless of the degree of client engagement. Therefore, clients who experience ambivalence or outright rejection of traditional treatment methods did not provoke a more directive response from the participants surveyed in this study. This implies that training that results in increased knowledge and more favorable attitudes toward recovery practices will likely lead to the direct use of those principles in clinical work regardless of the degree of client engagement.

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Appendix A

Case Vignettes

1.   You are working with an adult client who presented to your treatment setting due to his experience hearing voices telling him negative things about himself. He is not currently at risk to harm himself or others. He has been hearing those voices off and on for the past two years with increased frequency in the last three months. The client also exhibited repeated thoughts that others were intending to harm him with little, or no, evidence to support that belief. The client is interested in going back to school to try to finish his bachelor's degree and he likes painting and other creative activities. He indicated that he has infrequent contact with his immediate family although they have expressed an interest in being supportive in the past. He reported having few meaningful daily activities and spends most of his time surfing the internet and watching television. He stated that he is aware that he has a serious mental illness that includes hallucinations and "strange thinking." He is motivated to take antipsychotic medication and engage in ongoing counseling. Currently he is willing to meet with you and discuss treatment choices.

2.   You are working with an adult client who presented to your treatment setting due to his experience hearing voices telling him negative things about himself. He is not currently at risk to harm himself or others. He has been hearing those voices off and on for the past two years with increased frequency in the last three months. The client also exhibited repeated thoughts that others were intending to harm him with little, or no, evidence to support that belief. The client is interested in going back to school to try to finish his bachelor's degree and he likes painting and other creative activities. He

indicated that he has infrequent contact with his immediate family although they have expressed an interest in being supportive in the past. He reported having few meaningful daily activities and spends most of his time surfing the internet and watching television. He stated that he thinks he might have some kind of problem, but he is not sure. He is somewhat open to the idea of taking psychotropic medication that might address his symptoms and he may or may not continue to engage in counseling. Currently he is willing to speak to you about treatment choices.

3.   You are working with an adult client who presented to your treatment setting due to his experience hearing voices telling him negative things about himself. He is not currently at risk to harm himself or others. He has been hearing those voices off and on for the past two years with increased frequency in the last three months. The client also exhibited repeated thoughts that others were intending to harm him with little, or no, evidence to support that belief. The client is interested in going back to school to try to finish his bachelor's degree and he likes painting and other creative activities. He indicated that he has infrequent contact with his immediate family although they have expressed an interest in being supportive in the past. He reported having few meaningful daily activities and spends most of his time surfing the internet and watching television. He does not believe that he has a mental health problem and he is not interested in taking any psychotropic medications at this time. He expressed resistance about continued counseling although he is currently willing to speak with you.

Appendix B

Recovery Clinical Decision Making Inventory

Please answer each question as it applies to treatment planning for the client you just read about.

Based on the case you just read, please answer the following questions by circling one of the following responses:

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

1)   This client's stated choices and goals are important to me.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

2)   I would explore this client's motivation to engage in non-treatment activities such as work, volunteer work, or social activities in the community.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

3)   My primary focus would be on supporting the client to begin or maintain medication use. *(reverse score)*

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

4)   I find it important with this client to emphasize a collaborative relationship in which he has the ability to make his own health choices even if I disagree with those choices.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

5)   I would discourage this client from being out in the community until his symptoms are better-controlled. *(reverse score)*

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

6)   I am hopeful about this client's engagement in the recovery process.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

7)   I would like to work with this individual to develop a treatment plan that is

individualized and focused not only on symptom management but on his specific goals.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

8)   In this case it would be important to help the client accept a mental health

diagnosis.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

9)   I would formulate a case conceptualization that includes this client's mental,

physical, spiritual, and social needs.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

10)   I consider this client's present difficulties as part of a non-linear process of

growth, with expected progress and set-backs.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

11)   One important approach I would take with this client is to emphasize his

strengths.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

12)   I would be likely to emphasize this client's personal responsibility for his own

recovery.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

13)   My primary focus with this client is to help him stop hearing voices. *(reverse*

score)

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

14)   I would expect this client to be able to significantly improve his life.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

15)   I would strongly discourage this client from taking any risks, such as trying to find a job or otherwise engaging actively in the community, at this time. *(reverse score)*

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

16)   This client will not be able to improve unless he adheres to a treatment plan determined by a mental health professional. *(reverse score)*

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

17)   If this person experiences major set-backs in his treatment it means that he is not making progress at all. *(reverse score)*

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

18)   It could be beneficial for this person to get advice and support from other people who have had serious mental illnesses.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

19)   The pursuit of hobbies and leisure activities should be encouraged for this client.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

20)   Including family and natural supports in the treatment planning process would be an important focus when working with this client.

1. Strongly disagree   2. Disagree   3. Neutral   4. Agree   5. Strongly agree

Appendix C

Descriptions of Case Vignettes (presented to panel of recovery experts for feedback)

All three case vignettes describe the same client and symptom presentation with only the variations in his/her degree of engagement in treatment and the willingness to engage in treatment in the future. All three vignettes describe the same individual with a psychotic illness, presenting him/her in such a way that illustrates that he/she has serious symptoms, but also other interests and hopes for his future beyond the amelioration of symptoms. The first case describes this client in a way that illustrates the most willingness to engage in treatment. The client is agreeable and receptive to the current conversation and to future counseling sessions and medications. The second vignette represents a more ambivalent approach to the person's own treatment. He is not fully committed at the moment, nor is he sure about whether he would like to engage in future counseling or try medication. The third case represents a "resistant" client who appears to "lack insight" into his mental health problems and who expresses a dislike of treatment. The three vignettes are used to explore whether clinicians will differentially adhere to recovery principles when working on treatment planning and initial engagement depending on the degree of client engagement. The assumption is that clinicians will find it more difficult to take an approach that is more consistent with the recovery principles in vignette #3 with an individual portrayed as unengaged and disinterested in treatment. Providers may perceive that client as being more at risk in terms of his safety in the community and less capable of making his own decisions and engaging in non-traditional treatment behaviors that are helpful for them.