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Constructs That Are Associated with Perceived Self-Efficacy, Shared Decision-Making, and Satisfaction with Received Mental-Health Services in Individuals with Serious Mental Illness

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Philadelphia College of Osteopathic Medicine

Department of Psychology

CONSTRUCTS THAT ARE ASSOCIATED WITH
PERCEIVED SELF-EFFICACY, SHARED DECISION-MAKING, AND
SATISFACTION WITH RECEIVED MENTAL-HEALTH SERVICES IN
INDIVIDUALS WITH SERIOUS MENTAL ILLNESS

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By The Director of Research

Submitted in Partial Fulfillment of the Requirements for the Degree of

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DEPARTMENT OF PSYCHOLOGY

Dissertation Approval

This is to certify that the thesis presented to us by Kimberly A. Lovelock
on the 7th day of May, 2012, 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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Abstract

It is likely that the success of treatment techniques in increasing consumers' sense of inclusion in treatment decision making and increasing the likelihood for improved treatment outcomes for individuals with severe and persistent mental illness depends on the presence of common trait variables, such as empowerment and treatment-specific efficacy and process variables, such as the therapeutic relationship and the use of a shared decision-making style. To understand the relationships between these variables in individuals with serious mental illness (SMI), this study used an archival data set consisting of 396 adults with major depression and schizophrenia-spectrum disorders from Philadelphia area community mental-health centers. Questions covered their experience of global empowerment, the amount of confidence they had in asking questions of their physicians, their sense of shared decision making, the quality of the alliance with their treatment providers, and their perceived treatment satisfaction/outcomes. Hierarchical regression and multiple linear regression analyses were conducted to determine the relationship between the variables using the Empowerment Scale (ES), Working Alliance Inventory (WAI), Perceived Efficacy in Patient-Physician Interactions (PEPPI), Participatory Decision-Making Scale (PDMS), and their contribution to perceived treatment outcomes in individuals with serious mental illness, measured by the Mental Health Statistical Improvement Program Inventory (MHSIP). Participants articulated greater treatment satisfaction outcomes in the presence of greater perceived global empowerment, greater perceived inclusion in treatment decision making, and greater perceived working alliance. Participants also articulated greater sense of shared decision making in the presence of greater empowerment and

working alliance. Treatment outcomes and sense of inclusion in decision making were not significantly related to sense of treatment specific efficacy. The results of this study indicate the need for greater understanding of how to increase the sense of empowerment of individuals with SMI, as well as the need for clinicians to develop greater skill at fostering a sense of inclusion and working alliance in treatment to ensure greater treatment outcome satisfaction.

Table of Contents

List of Figures	xii
List of Tables	xiii
Chapter 1: Introduction	1
Statement of the Problem.....	1
Purpose of the Study	3
Relevancy of the Program Goals	4
Chapter 2: Literature Review	5
Changing Focus in Treatment	5
History of Changing Treatment Models	8
Medical Model Versus Patient-Centered Care.....	8
The Transformation of the Mental-Health System	9
Substance Abuse and Mental-Health Services Administration (SAMHSA) and Recovery	13
Self-Efficacy	15
Self-Efficacy and Behavior.....	15
Definition of Self-Efficacy.....	16
Self-Efficacy and Motivation for Healthcare Behaviors.....	17
Self-Efficacy and Treatment Outcomes	19
Self-Efficacy among Individuals with Serious Mental Illness.....	20
Self-Efficacy as an Important Variable in Recovery from Illness	22
Empowerment	24
History of Empowerment.....	24

Definition of Empowerment	27
Empowerment and Recovery from Psychiatric Disability.....	29
Empowerment and Self-Efficacy	31
Empowerment and Adherence to Treatment	32
Predictors and Correlates of Empowerment	35
Therapeutic Relationship in Mental Health Treatment	32
Definition of Therapeutic Alliance	35
Importance of Alliance in the Therapeutic Relationship	39
Therapeutic Alliance and Treatment Outcomes	46
Participatory Decision Making	46
Definition of Participatory Decision-Making (PDM).....	46
Factors Related to a PDM Style.....	48
Therapist variables	48
Consumer variables.....	50
PDM Style and Treatment Outcomes	50
PDM Style and Treatment Engagement	52
Self-Efficacy, Empowerment, Alliance, and PDM Style in Individuals with SMI	55
Classes of Predictors	58
Chapter 3: Hypotheses	58
Research Question 1	58
Alternative Hypothesis 1.....	58
Null Hypothesis 1	58
Justification for Hypothesis 1	58

Summary of Relevant Work	59
Research Question 2	58
Alternative Hypothesis 2.....	60
Null Hypothesis 2	60
Justification for Hypothesis 2	60
Summary of Relevant Work	61
Research Question 3	61
Alternative Hypothesis 3.....	62
Null Hypothesis 3	62
Justification for Hypothesis 3	62
Summary of Relevant Work	63
Chapter 4: Methods.....	64
Overview.....	64
Design and Design Justification.....	64
Data Set.....	64
Participants.....	65
Inclusion and Exclusion Criteria.....	66
Inclusion Criteria for Original Data Set	64
Exclusion Criteria for Original Data Set.....	64
Screening Procedures for Original Data Set	64
Recruitment for Original Data Set	66
Plan for Informed Consent Procedures	64
Measures	64

Perceived Efficacy in Patient-Physician Interactions Scale.....	64
Empowerment Scale	64
Working Alliance Inventory - Client Version - Short Form.....	64
Mental Health Statistics Improvement Program Consumer Survey	70
Participatory Decision-Making Scale	71
Procedure for Original Data Collection	71
Analysis of Risk/Benefit Ratio	72
Potential Risk to Participants	72
Potential Benefit to Participants.....	72
Potential Benefit to Others.....	72
Procedures for Maintaining Confidentiality	73
Chapter 5: Results	74
Preliminary Analyses	77
Correlational Matrix.....	77
Testing Assumptions.....	79
Hypothesis 1: PEPPI Hypothesis	79
Hypothesis 2: PDMS Hypothesis.....	81
Hypothesis 3: MHSIP Hypothesis	83
Chapter 6: Discussion	87
Study Findings	87
Potential Limitations.....	97
Future Directions	97
Conclusion	104

References.....105

List of Figures

Figure 1. Conceptual Model of Hypotheses 1, 2, and 3.....56

List of Tables

Table 1. Demographics of Patient Participants.....	73
Table 2. Means and Standard Deviations of Dependent Variables and Independent Variables	74
Table 3. Pearson Correlations Between Empowerment, WAI-C-S, PEPPi, PDMS sum, and MHSIP sum Scales.....	75
Table 4. Summary of PEPPi Hierarchical Regression Analyses	77
Table 5. Summary of PDMS Hierarchical Analyses	79
Table 6. Summary of MHSIP Hierarchical Analyses 1-4.....	82
Table 7. Summary of MHSIP, 5th Hierarchical Analysis	82

Chapter 1: Introduction

Statement of the Problem

Today, individuals with serious mental illnesses (SMI) have the opportunity, more than at any other time in the history of the treatment of mental illness, to participate in and guide the direction of their care (Anthony, 1993). The clinicians who are providing the treatment have a responsibility to allow these individuals to exercise this right for inclusion and to begin to understand their role in helping consumers to do so (Warner, 2009). Therefore, clinicians must seek to empower consumers in their ability to become active participants in their own treatment.

Consumers' empowerment was first operationally defined by Rogers, Chamberlin, Ellison, and Crean (1997). This group of researchers, who were considered leaders in the self-help movement, was the first to apply the construct to individuals with SMI. Their study suggested that programs should focus on increasing an individual's self-esteem and self-efficacy, increase perceived power particularly by increasing financial resources, and decrease feelings of powerlessness in treatment (Rogers et al., 1997). Current empowerment theory, research, and interventions suggest individual well-being, along with the larger social and political environment, is a truer definition of the construct because the construct includes a focus on mental health that requires both mutual help from and the creation of a responsive community (Perkins & Zimmerman, 1995). Therefore, empowerment is best enhanced in an environment that seeks to respond to individuals with SMI (SMI)¹ needs by increasing their sense of control in their

¹ SMI is defined differently by different researchers. For the purpose of this study, the sample included participants with the following diagnostic criteria: Individuals with a primary Axis I diagnosis of schizophrenia, a schizophrenia spectrum disorder, or

mental-health treatment. Mental-health professionals who strive to empower their clients in their own mental-health care can be more confident that these individuals will be more likely to adhere to treatment recommendations that are made on their behalf (O'Brien, Fahmy, & Singh, 2009).

Similar to individuals with chronic health problems, such as diabetes or heart disease, individuals with SMI are known to have poor adherence to treatment recommendations, including medication regimens and attendance at appointments (O'Brien et al., 2009). When these individuals fail to follow through with their scheduled appointments, they may experience an increase in symptoms of their illness, which can lead to a relapse, making more probable their need for treatment in the form of inpatient hospitalization. This tendency to relapse represents a common spiral that ultimately results in wasted resources, both because of the cost of the missed outpatient services and the high expense of the inpatient hospitalization. Some researchers have suggested that the current model of service provision is not conducive to improved client engagement in treatment (Anthony, 1993; Chamberlin, 2009). Researchers and consumer advocates, many of whom have been diagnosed with a mental illness themselves, have called for a change from the traditional medical treatment model to a more consumer-oriented and empowering model in an effort to improve engagement in the practices that will assist in their recovery (O'Brien et al., 2009).

A large body of research exists that has investigated correlates of treatment outcomes. The amount of perceived self-efficacy has been shown to be highly correlated

major depression. For all future references, this document will use the term SMI, but please note that for this study it only refers to these three main diagnostic SMI subgroups. In a later section, the participants will be more thoroughly described.

to an individual's ability to recover from a mental illness (Maly, Frank, Marshall, DiMatteo, & Reuben, 1998). The therapeutic alliance is another variable that has been reliably linked to treatment outcomes (Lehman et al., 2004; O'Brien et al., 2009; Smerud & Rosenfarb, 2008). That is, with greater reported working alliance, there are greater reports of positive therapeutic outcomes (Smerud & Rosenfarb, 2008). The converse is also true. In addition to therapeutic alliance, empowerment is increasingly becoming an important focus in enhancing consumer efficacy (Perkins & Zimmerman, 1995; Smerud & Rosenfarb, 2008). Changing the focus from problem-centered to patient-centered interactions likely will result in a positive increase in reported therapeutic alliance, as will the style that the clinician/physician uses in making treatment decisions. Determining the relationships among these constructs and using this information to guide treatment interventions will serve to improve treatment outcomes in general.

Purpose of the Study

This study attempted to uncover the relationships between consumer-reported levels of empowerment and working alliance, and their reported perceived self-efficacy, inclusion in treatment decision making, and treatment outcomes in the hopes of providing direction and guidance to provider training and program direction. Moreover, this study will further the current literature and understanding of the nature and value of assisting consumers of mental-health services to engage actively in their mental-health treatment and experience recovery from their diagnosed psychiatric disability.

Relevancy of the Program Goals

This study addresses the program's goal to produce practitioner-scholars who have an appreciation and comprehension of the broad and general knowledge base that informs the profession of psychology. In addition, this study addresses the program's goal of producing practitioner-scholars who are able to identify and understand issues of individual and cultural diversity. Therapeutic alliance and empowerment are two important concepts in the provision of mental-health services. They involve understanding the need to be sensitive to multicultural issues, as well as being responsive to, and gaining knowledge of, ethnically and racially different individuals. This study accomplishes this goal by including a review of the literature that focuses on the historical foundations of consumer empowerment, as well as on the current consumer empowerment movement. Finally, this study serves as an endeavor to increase awareness of the greater need for the evaluation of current therapeutic interventions, furthering the advocacy efforts to change current policies for the provision of services for individuals diagnosed with SMI.

Chapter 2: Literature Review

The prevalence of mental illness in the United States is estimated to affect 26.2% of Americans ages 18 years and older in a given year, according to a study that measured the prevalence, severity, and comorbidity of mental illness in America (Kessler, Chiu, Demler, & Walters, 2005). This statistic, when applied to the 2004 U. S. Census data, suggests that a total of approximately 57.7 million individuals are diagnosed in a given year with some type of mental health problem (DeNavas-Walt, Proctor, & Hill Lee, 2005). However, though mental disorders are somewhat common in the United States, the greatest burden of mental illness belongs to those who are diagnosed with SMI (Kessler et al., 2005). According to one study, SMI is associated with an annual loss of earnings totaling \$193.2 billion (Insel, 2008; Kessler et al., 2008). It is estimated that only a small proportion, approximately 1 in 17, or 6%, of U. S. residents fall into this more serious category (Kessler et al., 2005).

Changing Focus in Treatment

Treatment paradigms have shifted from a focus on diagnosing and treating the mental illness to an ideology that seeks to assist individuals with mental disorders in achieving their highest level of wellness (Chamberlin, 2009; Warner, 2009). This shift has become a focal point in the development of new treatment approaches as more individuals with SMI are able to regain levels of functioning they experienced prior to their diagnosis. In fact, consumers with SMI have also been able to gain higher skill levels post diagnosis (Chamberlin, 2009). One example of a diagnosis that falls under the category of SMI is schizophrenia. Schizophrenia was once thought to be a lifelong and

chronic prognosis. However, a study by Harding, Brooks, Ashikaga, Strauss, & Brier (1987) suggested that there was the potential for different outcomes in the trajectory of schizophrenia. The study followed 82 individuals with schizophrenia for 20 to 25 years and indicated a great amount of heterogeneity in the functional outcomes of these individuals. Specifically, the downward trajectory that was once thought inevitable by treating clinicians was dispelled, as the study indicated that 73% of the participants led moderate to very full lives (Harding et al., 1987). Furthermore, 81% of participants were able to meet their basic daily needs, and 68% of the participants denied the presence of symptoms or experienced only slight symptomatology (Harding et al., 1987).

The understanding that individuals with SMI can live fulfilling lives and have greater input in their treatment planning has been a starting point for the consumer movement in America, a type of grass roots effort led by individuals diagnosed with psychiatric disabilities. This movement began to form in early 1970, during a time when important decisions about funding and provision of mental-health care were being decided by state and federal legislators. Former consumers of mental-health treatment services across the nation began to gather together with the goal of developing a greater awareness of patients' rights and their inclusion and influence in treatment planning. The continued focus of these groups today is to bring attention to the lack of inclusion of the individual in the actual treatment decision-making process (Warner, 2009).

The World Health Organization (WHO) suggested that the focus of change should be on mental health, rather than on mental illness. Mental health is defined as a state of complete mental, physical, and social well-being (World Health Organization [WHO],

2005). In this definition, the focus is not only on targeting and eradicating the symptoms, but also on improving individuals' life experiences (WHO, 2005).

However, the statistics discussed at the opening of this chapter indicate that SMI remains a significant public-health problem and that treatment providers are still in the beginning stages of understanding all the factors that contribute to individuals' recoveries. Therefore, the question remains: How do individuals diagnosed with SMI get better, and what variables are important in fostering individuals' desires and abilities to recover from their mental illnesses? This chapter will review the current understanding of the impact that the constructs of self-efficacy, empowerment, therapeutic alliance, and inclusion in treatment decision making have on individuals diagnosed with SMI under the larger umbrella of the mental-health transformation that is occurring across the nation. A brief history of the changing treatment models will be reviewed in order to better understand how and why the provision of healthcare is changing. Next will be a review of the four previously mentioned constructs that are gaining greater attention in the field as being related to focus of the transformation – namely, recovery from mental illness. Self-efficacy, an important construct of human agency and motivation, is reviewed in this context. Following that will be a discussion of empowerment as a construct, a historical movement, and as a catalyst for mental-health recovery. After the review of empowerment, the concept of therapeutic alliance and its role in recovery from diagnosed psychiatric disability will be reviewed and discussed. Finally, information about the importance of physician's inclusion of the client in decision making, in relationship to recovery from mental illness, is discussed. Some of these constructs have been studied at

length and have a large body of support in the literature. This study seeks to bring these constructs together in order to determine their contribution to the process of recovery in individuals with SMI.

History of Changing Treatment Models

Medical Model Versus Patient-Centered Care

In the process of determining the best treatment for individuals with SMI, treatment approaches have progressed from using a medical or biological model to taking an approach that looks at the whole person and, furthermore, encourages the inclusion of the individual in his or her treatment. The medical model has been rooted traditionally in the belief that the physician holds the knowledge and power in the relationship to make all of the treatment decisions for the individual seeking the treatment. This approach to treatment largely continues to govern the order and timing of treatment in the behavioral-health field today (Brown, Rempfer, & Hamera, 2008). However, a growing consensus of consumers, consumer advocates, researchers, and clinicians considers the use of recovery-oriented and patient-centered approaches to individuals with SMI to be more effective (Brown et al., 2008). Trinh, Moore, and Brendel (2008) proposed that the primary issue at the core of the traditional medical model is a debate about respecting clients' autonomy versus achieving the best positive clinical results. This achievement requires consideration of inclusion of individuals' opinions and preferences in their care.

According to Trinh et al. (2008), this construct can be conceptualized as physician "beneficence" (Trinh et al., 2008). Understanding a patient's right to autonomy also requires respecting the right of an individual to refuse or choose a particular course of

treatment (Trinh et al., 2008). It furthermore entails the individual's right to lifestyle and treatment choices, given that he or she is able to give informed consent, can consider the options rationally, and can make consistent choices over time (Trinh et al., 2008).

Caveats are put into place to ensure that, though there is respect for what might be a "poor" choice for a client, the treatment team can and should intervene to ensure that clients do no harm to him or herself or to others. Thus, in the patient-centered model of care, the focus is on allowing the individual to increase his or her independence in choice of treatment planning. Consumers of behavioral-health services are furthermore encouraged to be active participants in their treatment. Many of the defining components of patient-centered care were also emphasized in the significant paradigm shift that has occurred in the behavioral-health service field. Called the mental-health system transformation, the behavioral-health field has received considerable attention from consumers, advocates, and subsequently governing agencies calling for the drastic change and improvement in the delivery of services. The following section reviews the recent changes to the behavioral-health system.

The Transformation of the Mental-Health System

In 2001, President George W. Bush announced the development of the New Freedom Initiative (NFI) as a means to promote awareness of and increase access to employment and educational opportunities for individuals with disabilities (New Freedom Commission on Mental Health [NFCMH], 2003a). The NFI was also designed to increase access to community resources and other technologies for the purpose of assisting individuals' full access to community life. In other words, services were to be

established for individuals with disabilities that would allow for greater community integration (NFCMH, 2003a). The development of the NFI was in part related to the 1999 ruling in the *Olmstead v. L.C.* decision in which the Justices of the United States Supreme Court ruled, in line with the Americans with Disabilities Act, under Title II, that individuals with mental disabilities have the right to live in and receive treatment in the greater community instead of in institutional settings. The landmark ruling also indicated that the community had a responsibility to develop resources for individuals with disabilities to ensure their successful adaptation and ability to thrive in their communities (NFCMH, 2003a).

The findings from the NFI resulted in the development of the New Freedom Commission on Mental Health (NFCMH) in 2002. The charge of the NFCMH was to study the mental-health service delivery system in the United States for the purpose of making recommendations that would enable adults with SMI and children with serious emotional disturbances to be integrated with their communities. In July of 2003, the NFC submitted the final report of the findings in their document entitled, *Achieving the Promise: Transforming Mental Health Care in America* (NFCMH, 2003b). After a year of reviewing research and testimony, the NFC found that recovery from mental illness was a real possibility. Under the guidelines for a transformed system, the NFCMH advised that recovery from mental illness was to be the goal of all treatment that is provided to individuals seeking treatment (NFCMH, 2003b).

The NFCMH provided the following definition of recovery from mental illnesses: “Recovery refers to the process in which people are able to live, work, learn, and

participate fully in their communities” (NFCMH, 2003b, p. 7). Therefore, according to this definition, for some individuals recovery will include living a fulfilling life in the presence of a disability. For others, recovery will also include either a reduction or a remission of all symptoms. By viewing recovery in this manner, hope for a meaningful life is increased. Research has shown that hope is integral in an individual’s ability to recover (NFCMH, 2003a).

The NFCMH noted, however, that system change was needed in order to combat the reality of a fragmented and disconnected mental health treatment delivery system. According to the Commission report, “In a transformed system, consumers and family members will have access to timely and accurate information that promotes learning, self-monitoring, and accountability” (NFCMH, 2003a, p. 8). Personalized care is a part of this guideline and is loosely defined as choosing which treatment providers will be on the consumer’s team, what the modality of treatment will be, and how appropriate healthcare will be provided. Additionally, the report outlined a plan of action for individuals when first diagnosed with SMI. According to the Commission, healthcare providers are charged with the duty of “develop[ing] an individualized plan of care for managing the illness” by collaborating with the consumer and with his or her families (NFCMH, 2003a, p. 8). The NFCMH advised that the provision of all healthcare will include shared decision making and consumers collaborating in the treatment plan.

The NFCMH indicated that three primary obstacles prevent individuals with psychiatric disabilities from receiving the care that they deserve. These included “the stigma that surrounds mental illnesses, unfair treatment limitations and financial

requirements placed on mental health benefits in private health insurance, and the fragmented mental health service delivery system” (NFCMH, 2003b, p. 1). Based on these observed obstacles, one goal of the transformation of the mental-health system, therefore, is to reduce the stigma surrounding mental illness. By making recovery the primary goal and outcome of mental-health treatment, the hope is that stigma will be reduced, reinforcing the hope of recovery for every person diagnosed with a mental illness. The desired outcome of the transformation, according to the NFCMH, will allow for American consumers to seek mental healthcare when they need it, as the stigma surrounding mental illness and the need for treatment will be reduced or eliminated.

In the 2002 report from the NFCMH, the onus of the responsibility for the observed deficits in the behavioral-health delivery system were not attributed solely to a lack of professionalism or compassion in the behavioral healthcare workers. Instead, the NFCMH suggested that the problems in the delivery of services were primarily caused by the lack of available effective and efficient community services on which people with SMI can count. The suggestion was that the programs that were evaluated and found to be fragmented across levels of government and within many agencies needed to be retooled and better integrated into the community in order to provide the most effective treatment (NFCMH, 2003a). However, while there is a dearth of adequate community resources that are targeted to ensure successful recovery for individuals with SMI, one can argue that the treatment providers who are making referrals to the available community resources lack the skills needed to build healthy working alliances with

individuals with SMI, thereby increasing their sense of hopelessness in their ability to recover.

According to the NFCMH, two principles are involved in successfully transforming the delivery of behavioral-health services: (a) services and treatment must be consumer and family centered, and (b) treatment must focus not only on managing symptoms, but also on increasing the consumers' ability to cope with the challenges of life, on facilitating recovery, and on building resilience (NFCMH, 2003a/b). These principles reflect the need for treatment providers to consider the consequences of interactions with people with psychiatric disabilities, as providers may, in fact, be hindering their clients' ability to recover.

Substance Abuse & Mental Health Services Administration (SAMHSA) and Recovery

In addition to the two previously mentioned guiding principles of a transformed mental health system, SAMHSA released the Federal Mental Health Action Agenda in 2009, in which the President's Executive Order 13263 of April 2002 listed five principles around which the NFCMH framed its work (SAMHSA, 2009; United States Department of Health and Human Services [UHHS], 2002). The principles were designed to exemplify the overarching vision that is to shape the necessary work to change the system of behavioral healthcare. The five principles include (a) The focus of the desired treatment outcomes will be to seek to attain each individual's maximum level of recovery, as defined by the NFCMH (i.e., highest levels of employment, self-care, interpersonal relationships, and community integration); (b) All health and human service

providers, as well as both the public and private funding sources, will effectively manage and coordinate the needed behavioral- health treatment and delivery of services on a community level; (c) Behavioral healthcare will focus on ensuring that policies will maximize the usefulness of existing resources by increasing cost effectiveness and reducing unnecessary and burdensome regulatory barriers; (d) Research findings will be reviewed regularly for the purpose of determining how to most effectively influence the delivery of services; and, (e) The NFCMH will ensure that their recommendations will promote innovation, flexibility, and accountability at all levels of governing agencies while respecting the constitutional role of the States and Indian tribes (NFCMH, 2003a/b). Clearly, transformation of this magnitude will require the restructuring of all behavioral-health delivery systems. Additionally, the current and incoming behavioral-health care workforce will require retraining in recovery-oriented principles in order to attain the goals established by the NFCMH and SAMHSA.

The NFCMH set forth six similar goals to aspire to in order to transform the mental-health treatment delivery system. The transformation requires developing a behavioral healthcare system in which Americans understand that: (a) mental health is essential to overall health; (b) mental healthcare is consumer and family driven; (c) disparities in mental-health services are eliminated; (d) early mental-health screening, assessment, and referral to services are common practice; (e) excellent mental healthcare is delivered and research is accelerated; and (f) technology is used to access mental healthcare and information. In particular, the fifth listed goal suggests the need for further training of clinicians and physicians providing treatment to individuals with

psychiatric disability. Training will need to include a strong focus on using treatment approaches that have demonstrated effectiveness through empirical testing.

Based on the requisite changes that will need to be made to transform the provision of behavioral health treatment to be compliant with the recommended best practices for the delivery of treatment, it is important to conceptualize the constructs that correlate with an individual's ability to recover. The following sections discuss four correlates that appear to be highly important in the provision of treatment, and thus may make an individual with SMI more likely to maintain the focus and motivation required to gain and maintain recovery from the diagnosed psychiatric disability. These constructs include self-efficacy, global empowerment, therapeutic alliance, and the physician's use of a shared decision-making style.

Self-Efficacy

Self-Efficacy and Behavior

Social cognitive theory explains human functioning through an interaction of reciprocal determinism (Bandura, 1986). Individuals' behaviors both influence and are influenced by their environments and by personal factors (Bandura, 1977; 1986). Social Cognitive Theory involves an understanding of the feed-forward system of self-regulation. This system differs from other theories of behavioral control that are rooted in a negative feedback system, which merely attempts to prevent error (Bandura, 1986; Bandura & Locke, 2003). Self-efficacy beliefs influence this system and are central to individuals' successful completion of a behavior or goal, because self-efficacy beliefs

affect how individuals think, feel, behave, and motivate themselves (Bandura, 1986; 2004).

When considering the importance of self-efficacy and individuals with SMI, one can clearly see that individuals' perceptions of their own abilities and their environmental conditions play a significant role in the way these individuals manage their mental illness. Therefore, when considering recovery from SMI, perhaps nothing is more essential to acting in ways that will positively affect their experience of mental illness than the belief in their capabilities to do so. In order to better understand how this construct impacts the management of a mental illness, the following section reviews the definition of self-efficacy. Then, the effect of self-efficacy on specific healthcare behaviors is discussed.

Definition of Self-Efficacy

Bandura (1994) defined self-efficacy as peoples' beliefs about their capability to enact a certain behavior. People must believe that they can produce expected levels of performance that influence the events that affect their lives, suggesting a positive relationship between individuals' self-efficacy and their beliefs about their ability to cope in a given situation (Bandura, 1994). Moreover, beliefs about self-efficacy affect how individuals think, feel, behave, and even motivate themselves in a given situation (Bandura, 1994). Self-efficacy, then, is regarded as context- and task-specific in relation to a particular behavioral outcome (McCann, Clark, & Lu, 2008). Self-efficacy is different from self-esteem, as the latter is considered to be a generalized sense of self-worth (McCann et al., 2008). Owing to its behavior-specific nature, self-esteem can be learned and enhanced upon through increasing attempts to complete goals and tasks

(Lorig & Holman, 1993). It is not a personality trait that remains relatively stable throughout the lifespan, like self-efficacy (Lorig & Holman, 1993; McCann et al., 2008).

According to Bandura (1997), among the different mechanisms of human agency, a sense of personal efficacy is more central to one's belief in the ability to exercise control over the events that affect one's life. Furthermore, he stated that regardless of any other factors that serve as guides and motivators for behavior, all are rooted in the core belief of one's ability to achieve the desired effect by acting, or actually taking action, to meet a goal (Bandura, 1997; Benight & Bandura, 2004). When this core element is not present, an individual has little incentive either to act or to persevere when tasks become difficult. With taxing pursuits, individuals must judge their efficacy as sufficient both to sustain their motivation and task-oriented focus and to effectively manage any distressing emotional states and self-destructive thought patterns that may surface while seeking to meet their goal (Bandura & Locke, 2003). These debilitating beliefs can impair the individual's ability to execute the necessary activities related to the goal. Beliefs in one's ability to act in a way that will mitigate the experience of SMI will also affect the outcome of treatment. The following section reviews the impact of self-efficacy on motivation to manage illness and actual treatment outcomes.

Self-Efficacy and Motivation for Healthcare Behaviors

Bandura (1986) believed that beliefs in personal self-efficacy are the actual foundation of human agency. He suggested that individuals are more likely to follow through on important healthcare behaviors if two overarching circumstances exist (Bandura, 1986; Moore, 1990). First, individuals' health beliefs must indicate that a

specific behavior will produce and result in the desired outcome (Moore, 1990). For example, medication adherence in the population diagnosed with SMI is currently at 50%, with a success rate for decreasing targeted symptoms estimated to be in a range from 5 to 25% (Corrigan, Liberman, & Engel, 1990; Lacro, Dunn, Dolder, Leckband, & Jeste, 2002; Warner, 2004). In this example, the medications are not producing the desired or expected outcome. Therefore, individuals may choose not to take the medication, as their expectation may be that the medication should be able to take away all of their symptoms. Individuals are even more likely to stop taking their medications if they are also experiencing side effects from the treatment (Corrigan et al., 1990).

The second condition that needs to be present in order to increase the likelihood that individuals will follow through on important healthcare behaviors is confidence in their ability to actually carry out a particular behavior or action sequence to achieve the desired and intended result (Moore, 1990). These tasks could include scheduling and attending doctors' appointments, remembering to drop off prescriptions for medications that are needed for their physical and mental health, and picking up medications from their pharmacies, to name only a few. Each of these tasks requires a number of successive behaviors in order to be completed. Individuals with SMI who have strong perceived self-efficacy are better able to address the many and oftentimes complex tasks that are required to maintain their physical and mental wellness (Corrigan et al., 1990; Lacro et al., 2002; Moore, 1990).

It is not surprising, then, that individuals who do not feel capable of completing a task are not likely to attempt it. They are also less likely to persevere in their efforts to

achieve the goal of the task. With this in mind, one can understand that treatment outcomes are also impacted by the presence or deficiency of self-efficacy. The following section reiterates the importance of self-efficacy on the outcome of treatment for individuals with medical and mental-health disorders.

Self-Efficacy and Treatment Outcomes

Studies of self-efficacy have found this construct to be a powerful mediator of health behaviors and outcomes across many patient populations and health conditions (Aljaseem, Peyrot, Wissow, & Rubin, 2001; Franks, Chapman, Duberstein, & Jerant, 2009). Regarding healthcare outcomes, correlation between self-efficacy and individuals' beliefs that they are able and capable of performing at a level that will produce positive effects in their health has been found (McCann et al., 2008). Furthermore, studies have shown that peer-led interventions increase and strengthen self-efficacy and result in positive changes in health behaviors and outcomes in individuals with chronic conditions (Warnecke, Morera, Turner, Mermelstein, Johnson, & Parson, et al., 2001). However, few studies have reviewed longer term effects of these programs. Therefore, the effect of peer-led intervention programs on illness management self-efficacy remains unclear (Franks et al., 2009).

Lorig et al. (1999) developed the most widely used and researched health care intervention known to enhance self-efficacy, known as the Chronic Disease Self Management Program (CDSMP). This program provides participants with self-efficacy and skills training that is required to manage their chronic medical conditions, regardless of the diagnosis. The intervention seeks to enhance self-efficacy through mastering six

core self-management tasks. The tasks include solving problems, making decisions, using resources, forming a positive relationship with the provider, making an action plan for health behavior change, and tailoring treatments to individual requests (Lorig et al., 1999). The CDSMP used highly trained nonhealthcare providers, or participants' peers, to deliver the intervention. The results of a study designed to measure the program's efficacy, when considering personality as a moderator variable, showed significant improvement in illness management self-efficacy for individuals with SMI (Franks et al., 2009). At a practical level, understanding the treatment moderators of self-efficacy can help providers of healthcare increase the efficacy of treatment interventions by identifying potential candidates for whom the intervention is likely to be most effective (Franks et al., 2009). The present study sought to increase the current understanding of the correlates of healthcare self-efficacy in a population of individuals with SMI, an area that was previously underrepresented in the literature.

Self-Efficacy Among Individuals with Serious Mental Illness

The role of self-efficacy is an important consideration in coping with chronic conditions. Carpinello, Knight, Markowitz, and Pease (2000) suggested that self-efficacy for recovery from mental illness may be conceptualized as belief in one's ability to overcome the adversities that are associated with mental illness. Self-efficacy affects the amount of effort that an individual puts into coping with the disease and the tendency toward maintaining perseverance in coping (Raggi, Leonardi, Mantegazza, Casale, & Fioravanti, 2009). Individuals with SMI may internalize the experience of stigma that is associated with having a mental illness (Watson, Corrigan, Larson, & Sells, 2007). As a

result, they may begin to experience diminished self-efficacy and self-esteem (Watson et al., 2007). However, not all individuals who have a mental illness experience a loss of their ability to manage their daily lives. Some individuals respond to the damaging effects of stigma by increasing their determination and drive, becoming energized and even empowered in their attempts to maintain wellness (Watson et al., 2007). Having a high sense of self-confidence in one's own ability to act in a way that will help to control symptoms of psychiatric disability has been found to have health-enhancing effects in itself (Marks, Allegrante, & Lorig, 2005; Raggi et al., 2009). High self-efficacy has also been identified as a primary mechanism associated with recovery from mental disorders (Anthony, 1993; Coursey, Farrell, & Zahniser, 1991; Davidson & Strauss, 1992; Rosenfield, 1987; Shaffer & Gambino, 1978).

However, a percentage of individuals with SMI tend to remain relatively withdrawn. They may appear to be indifferent to the reality of needing to make efforts to take an active role in their self-care (Raggi et al., 2009). Research has suggested that prior to being labeled as a person with a mental illness, people have already internalized stereotypes about the meaning of having a mental illness (Link, 1987; Link, Cullen, Struening, Shrout, Dohrenwend, 1989). Therefore, having low self-efficacy may mediate the change in disease self-management behaviors, resulting in negative physical and mental-health outcomes (Marks et al., 2005).

When one faces the reality of the onset of a mental illness, the stereotypes that were previously formed become relevant to oneself. Some might perceive this event as a stigmatizing experience and fear that rejection from their social networks and

communities is inevitable. Rejection, and the thought of potential rejection, can lead to isolation, the possibility of job loss, eventual lowered income, and the gradual reduction of ability to function in the community (Watson et al., 2007). Depending on the amount of perceived self-efficacy prior to the onset of a diagnosis of SMI, this negative sequence may be avoidable. Therefore, it is important to determine the mechanisms that can impact an individual's sense of self-efficacy to manage the daily tasks of life and his or her illness in order to improve outcomes.

Self-Efficacy as an Important Variable in Recovery from Illness

Self-efficacy has been found to be an important variable in recovery from physical illnesses. One study found that limited knowledge and self-efficacy regarding active self-management of one's physical health was a primary barrier to the attempts of those with SMIs to engage in health-promoting behaviors (Schmutte et al., 2009). In addition, results from the study indicated that despite expressed interest in learning more about health promotion, most of the study's participants indicated a sense of personal futility and powerlessness in their ability to improve their physical health. Furthermore, results from the study suggested that any effort to improve the physical wellness of individuals with SMI must address self-efficacy as a foundation for improving their self-care for their health needs. If self-efficacy is an important factor in recovery from physical health issues, it is logical to assume that issues of self-efficacy would be important in the recovery from psychiatric disability. Individuals with SMI must feel able to enact the changes that are required to attend to the behaviors that will help them to

recover, such as asking treatment-related questions about medications, investigating other treatment alternatives, and actually following through with recommended treatment.

Self-efficacy has also been found to be a significant variable in recovery from psychiatric disabilities. In a study that examined the relationship between participation in consumer-run services and recovery of social functioning in individuals diagnosed with SMI, researchers found that behavioral health services that focus on helping people learn how to cope effectively with their symptoms help consumers to become more hopeful and to develop a greater sense of self-efficacy, which, in turn, may increase their likelihood of having a positive outcome (Yanos, Primavera, & Knight, 2001). The study results also suggested that there are two separate paths to recovery from mental illness. One suggested path may be taken by individuals who already have a high sense of self-efficacy and who feel more confident because their symptoms are more effectively managed by medication (Yanos et al., 2001). These individuals may, therefore, have less of a need to cope in an active manner (Yanos et al., 2001). The other path to recovery suggested by Yanos et al. (2001) may be taken by people who tend to cope more actively while experiencing more symptoms, as these individuals may feel less sure in their ability to manage symptoms, though they may still work more actively to manage them. Regardless of the pathway taken, self-efficacy plays an important role in recovery from mental illness.

Based on a brief review of the literature that indicates the importance of individuals with SMI having a sense of their ability to effectively impact their own lives through the management of their mental illness, one can easily appreciate the importance

of assisting these individuals with enhancing their sense of self-efficacy. Through the lens of social cognitive theory, individuals have vast potentiality that can be developed through direct and vicarious experiences. The ability to develop a strong sense of self-efficacy is still limited, however. The following section introduces the concept of empowerment and its impact on the individual with SMI. The history of the empowerment movement is first discussed in order to better understand the catalyzing effects of this important construct.

Empowerment

History of Empowerment

Empowerment is a concept that is historically rooted in the consumer movement, which began with the advent of the professional rehabilitation services and initiatives that were present in the 1970s (Chamberlin, 2009; Chamberlin, Rogers, & Ellison, 1996; Warner, 2009). With this movement, the focus shifted from a medical, perhaps more paternal, model for treatment towards a consumer-centered focus (Chamberlin, 2009). Similarly, the concept of empowerment has gained the momentum of a social movement and has led to important changes in the way that behavioral healthcare is delivered (Shean, Bell, & Cameron, 2007). The restructuring of the provision of treatment for individuals with SMI has been an empowering change for recipients of the treatment. This paradigm shift has created an environment for individuals to become actively involved in making decisions about their treatment (Warner, 2009). This evolving model also engenders the advocacy efforts of individuals with SMI for the development of

accessible recovery-oriented services that will enhance the positive culture of sustained remission from their symptoms (Warner, 2009).

Empowerment is an important concept in what is being labeled the recovery model for mental illness (Shean et al., 2007). The model recognizes the importance of the subjective feelings of wellness, such as healing, hope, and empowerment. It also puts emphasis on the importance of interpersonal support networks consisting of peers with mental illness who have been able to regain a sense of wellness and productivity in their lives (Warner, 2009). Finally, the recovery model includes the significant role that these individuals' service providers and other healthcare workers play in their return to more balanced, healthy, and productive lives (Shean et al., 2007; Warner, 2009). Since the beginning of the movement, activists for change in the provision of mental-health services have emphasized the need to empower individuals, to collaborate with them in treatment decision making, and to stress that all individuals are entitled to basic human rights (Warner, 2009).

The change in treatment philosophy from a medical-based model to a consumer-centered and recovery-oriented model, has resulted in several key principles that are considered central to the recovery of an individual with a psychiatric disability. First, a renewed understanding and desire for the eradication of stigma that has been attached to having a mental illness has been a central focus of the movement. Attempts to eliminate the stigma of mental illness have included factors such as changing the language surrounding treatment and treatment-oriented care. Second, the importance of providing education to the consumers of behavioral-health treatment about managing their illness in

order to increase understanding and empowerment has grown. Third, the creation of peer-run services, mentoring, and other support mechanisms, such as drop-in centers that encourage wellness through advocacy, have increased (Warner, 2009). These service priorities are grounded in understanding the importance of considering all individuals as able to recover from the debilitating effects of psychiatric disability.

With the advent of the consumer movement and the focus on empowerment, clinicians who operate within traditional treatment frameworks have been educated to consider that their clients with SMI might be able to work, enjoy social relationships, and develop a support network through community involvement and inclusion (Warner, 2009). In addition, mental-health professionals have become aware of the active efforts of individuals with SMI to advocate for change in the provision of behavioral-health services. Individuals recovering from a mental illness have successfully advocated to change legislation and program models and have started to change the perception of individuals with SMI.

A growing body of data and research emphasizes the importance of empowerment in recovery from mental illness (Chamberlin, 2009; Warner, 2009). It supports the notion that recovery and recovery-oriented care, including the development of services that are focused on increasing self-efficacy and reducing the experience of internalized stigma, are valuable in empowering individuals with SMI, thus improving their long-term prognostic outcome (Warner, 2009). Furthermore, a substantial proportion of individuals with SMI actually fully recover from their illness. Moreover, even more individuals are projected to regain a good level of social functioning (Warner, 2009).

In order to better understand the construct of empowerment, one must define it. The remainder of this section is dedicated to discussion about the development of the definition of empowerment, the current methods used to measure this construct, the importance of empowerment in recovery from mental illness, and the factors related to individuals' experiences of empowerment.

Definition of Empowerment

Many definitions for the term *empowerment* are used to conceptualize a currently poorly delineated construct. However, they all imply that empowerment includes more than the traditional psychological concepts of self-esteem, self-efficacy, competency, and internal versus external locus of control (Perkins & Zimmerman, 1995). In general, the definitions are consistent in comparing empowerment to the intentional ongoing process centered in the local community, involving mutual respect, critical self-reflection, caring, and group participation. Through this ongoing process, individuals who are found to be lacking an equal share of valued resources gain greater access to and control over the resources that are available (Cornell Empowerment Group, 1989). More simply stated, empowerment is the process by which people gain control over their lives, participate in their communities, and gain a critical understanding of their environment (Zimmerman, Israel, Schulz, & Checkoway, 1992). Chamberlin (2009) suggested that the critical elements of empowerment include access to information, inclusion in decision making, assertiveness, and self-esteem. Perhaps most interesting is the agreement that empowerment is both an individual and a group phenomenon, such that individuals are inspired by groups that are focused on these domains (Chamberlin, 2009). Perkins and

Zimmerman (1995) suggested that empowerment includes the importance of interacting with others to achieve goals, and to gain access to resources and of the need for some level of critical understanding of the sociopolitical processes responsible for the development of treatment guidelines for individuals with psychiatric disability. This definition of empowerment introduces new implications for the current model of psychiatric rehabilitation programs, such as allowing once disenfranchised groups, like individuals with SMI, to develop the programming in collaboration with mental-health professionals, or without the input of clinicians entirely (Chamberlin, 2009).

Additionally, theories of empowerment also include processes and outcomes. The presence of processes and outcomes suggests that actions, activities, or structures may be considered empowering (Anthony, 1993; Chamberlin, 2009). Thus, at the organizational level, these processes can be construed as collective decision making and shared leadership (Perkins & Zimmerman, 1995). At the community level, processes might include collective action to access government and other community resources. Outcomes would refer to operationalizations of empowerment that allow for the study of the consequences of empowering processes (Perkins & Zimmerman, 1995).

Clearly empowerment has become a critical construct of focus for understanding the development of individuals, organizations, and communities (Chamberlin, 2009; Perkins & Zimmerman, 1995; Rogers et al., 1997; Zimmerman et al., 1992). In the last 10 to 15 years, it has developed into a paradigm-challenging construct and is now highly popular in the discipline of psychology and many other fields (Kuhn, 1970; Perkins & Zimmerman, 1995). The field of psychology also must investigate the relationship

empowerment has with other core constructs in treatment. To address this question, one first needs to select the level of empowerment to be investigated.

As previously discussed, empowerment occurs at several levels of an individual's life experience. It includes the processes by which people gain control over their lives, participate in their communities, and develop a critical understanding of their surrounding environments. For the purposes of this study, empowerment will be measured at the level of the individual, not the larger societal or community level. Specifically, the relationship between the provider and the consumer, a relationship representative of one societal structure that might be indicative of how empowered a person might feel in his or her daily life, will be investigated.

Empowerment and Recovery from Psychiatric Disability

In order to begin to understand the importance of empowerment to the consumer movement, one must consider that individuals who are diagnosed with a SMI may feel disempowered (Warner, 2009). This sense of disempowerment may stem from experiences with involuntary treatment, including involuntary inpatient commitments, the persistent paternalistic approach that is so pervasive in current traditional outpatient and inpatient treatments, the ongoing societal stigma regarding individuals with mental illnesses, and even the stigma that individuals with psychiatric disabilities may attach to themselves, independent of beliefs or attitudes others may harbor towards them (Warner, Taylor, Powers, & Hyman, 1989). Studies have even suggested that individuals may feel the need to conform to an image of incapacitation and worthlessness, or otherwise embody the sick role (Warner, 2009). Of importance, this sense of disempowerment may

also be a manifest symptom of SMI. For example, individuals experiencing anhedonia may also tend to perceive they are lacking in ability to achieve at a task. The problem arises when failure to attempt a task becomes a perpetual cycle, as this may result in individuals with SMI believing that they are ultimately dependent on their treatment providers or that they are unable to gain control over psychiatric disability (Warner, 2009). Reducing the level of stigma individuals experience and label themselves with may ultimately increase their sense of empowerment and eventual functioning. Having a sense of empowerment is important in the recovery in individuals with schizophrenia and other SMI. Empowerment challenges the pessimistic view of a diagnosis of SMI and other psychiatric disabilities as chronic and deteriorating (Brown et al., 2008).

Research has been conducted to examine constructs, such as quality of life and self-esteem, in an effort to understand the correlates of mental illness and the factors that influence the efficacy of treatment (Brekke, Levin, Wolkon, Sobel, & Slade, 1993; Resnick, Rosenheck, & Lehman, 2004). Interestingly, the older, more medically based model's definition of recovery from mental illness remains vital to the construct of empowerment, in that the individual who has recovered has maintained a level of remission of their mental illness such that there is no trace of the illness (Resnick et al., 2004). Indeed, if a person is no longer experiencing major symptoms of his or her mental illness, the consumer would understandably feel empowered and able to seek to reintegrate into his or her community.

A recent definition for recovery suggests that another characterization of the construct encompasses the individual's attitude toward life, or a life orientation (Resnick,

Fontana, Lehman, & Rosenheck, 2005; Warner, 2009). This definition suggests the importance of tailoring treatment so that individuals seeking mental healthcare are able to experience a sense of empowerment through change in attitude toward life. This treatment tailoring is thought to be the key motivating factor in a patient's perceived and actual treatment outcome (Warner, 2009). In addition, the idea that an individual is able to mend from the effects of the mental illness on his or her life, such as the loss of employment, relationships, and stable housing, suggests the likelihood that the individual will be able to develop a greater sense of self-efficacy. Furthermore, tailoring treatment to meet the individual's needs is, in its very essence, empowering the individual to achieve a level of meaning, regardless of current experience with mental illness. Such an approach to treatment is likely to result in increased life satisfaction and quality of life. Therefore, in a person-centered model in which individuals are supported in their attempts to regain a level of integration with their community that meets their needs and creates a sense of meaning, regardless of whether or not they are still experiencing symptoms of a mental illness, is understandably vital to the recovery of the individual.

Empowerment and Self-Efficacy

The construct of self-efficacy has been linked to better treatment outcomes for individuals with SMI (Raggi et al., 2009). It is also considered an important factor in empowering individuals. Self-efficacy, as previously defined, is one's belief in the ability to enact a specific behavior (Bandura, 1977). The presence of self-efficacy is necessary when dealing with a chronic illness because it can impact the effort, perseverance, resilience, and adherence to treatment (Raggi et al., 2009). These factors are all

significant in the successful management of a chronic disease. Therefore, having a high sense of confidence in one's ability to perform the behaviors that are needed to control symptoms may be considered health enhancing by itself. Low self-efficacy may mediate change in illness self-management behaviors and therefore worsen mental- and physical-health outcomes (Marks et al., 2005). When given the chance to express their own desires for course of treatment, one can understand that individuals will feel more control over their lives. This sense of control is considered to be an important factor in the individual's ability to maintain mental health and even to recover from mental illness (Chamberlin, 2009). According to Cattaneo and Chapman (2010), the process of becoming empowered is successful only when a personally meaningful increase in power is obtained through a person's own efforts, which requires the interplay of self-efficacy, agency, self-regulation, and self-determination. When considering SMI, the importance of self-efficacy is evident. If empowerment is, in fact, mediated by self-efficacy, and individuals report greater amounts of perceived self-efficacy, then greater amounts of empowerment should be present, as well.

Empowerment and Adherence to Treatment

A central theme in the treatment of individuals with SMI is the question dealing with the necessity and importance of empowerment in order to achieve good treatment outcomes (Warner, 2009). Studies have found a correlation between an individual's acceptance of mental illness and a subsequent lack of a sense of control over his or her life (Warner et al., 1989). In other words, the admission of having a mental illness results in feelings of inability to be, or remain, in control of one's life, especially in the presence

of the ongoing paternalistic model of treatment that continues to exist in the mental-health field today (Warner et al., 1989). A lack of sense of control in life may, plausibly, lead to a feeling of disempowerment. Based on this example alone, educating individuals about their illness, something that most clinicians today feel is one aspect of empowering their clients, apparently can also have deleterious effects. These effects include non-adherence to treatment recommendations, such as medications, appointments for therapy, and follow-up with medical professionals (Warner et al., 1989).

However, some evidence also strongly supports the importance of helping individuals understand their illness and its potential impact on their lives. In a study conducted by Resnick et al. (2005), the concept of recovery was measured by analyzing data from the Patient Outcomes Research Team (PORT) client survey to identify client and service use variables associated with a recovery orientation. Specifically, the researchers analyzed four factors: life satisfaction, hope and optimism, knowledge about mental illness and services, and empowerment. Using multiple regression models, the study found that in each model the strongest relationship occurred between an individual's recovery orientation and their lower reported severity of depressive symptoms (Resnick et al., 2005). Regardless of the presence or experience of psychotic symptoms in individuals with schizophrenia, those who reported greater depression were less likely to endorse feelings of empowerment or recovery. Congruent with that finding was the discovery that psychotic symptoms were associated with less life satisfaction. In addition, knowledge about mental illness was correlated to receipt of day treatment and legal services. As the authors predicted, and in line with other findings in the literature,

the severity of psychiatric symptoms was negatively correlated with the development of a recovery orientation. Furthermore, the use of a variety of services and approaches was positively related with a recovery orientation (Resnick et al., 2005). Their conclusion suggested that the biomedical and recovery views of mental illness, once thought to be mutually exclusive, actually appeared to be mutually reinforcing. A combination of the two approaches seems to be most effective in the treatment of individuals with SMI. Therefore, if both the medical and the person-centered, recovery-oriented models of treatment are necessary to the recovery of an individual diagnosed with SMI, then the current method of mental healthcare must be reformed to include both aspects. The transformation of the mental-health system suggests the importance of integrating the two models in order to have improved treatment outcomes for individuals diagnosed with serious psychiatric disabilities.

The conclusions drawn from Resnick et al.'s (2005) study highlight the importance of assisting individuals with SMI in understanding the effect of their illness on their ability to participate in other activities generally considered to be part of a recovered and empowered lifestyle. Clinicians can use this information to guide treatment planning to increase consumers' likelihood of buying into and remaining in treatment that may actually prevent premature termination of treatment. To do so, clinicians can assist the consumer to reframe disempowering beliefs that having a mental illness and requiring treatment in a mental-health facility, whether outpatient or inpatient, prevents them from actively pursuing treatment involvement and inclusion in decision making. Instead, this understanding can serve to increase consumers' sense of

empowerment and, therefore, improve their treatment outcomes. By accepting the reality of having a mental illness, consumers who seek recovery-oriented treatment can feel empowered because they are able to remain in partnership with their providers to determine the best course of action, and thereby increase their adherence to treatment.

Predictors and Correlates of Empowerment

Some studies have investigated predictors of empowerment. Rogers et al. (1997) were one such team who conducted statistical analyses to determine the best predictors of global empowerment. They examined the respondents' age, gender, educational status, ethnicity, age at first psychiatric contact, work status, total income per month, and total number of lifetime psychiatric hospitalizations. After running two stepwise multiple regressions, only the respondents' total monthly incomes emerged as a significant predictor of empowerment (Rogers et al., 1997). Resnick et al. (2005) also correlated the amount of medication side effects and family's level of understanding of the illness as factors that are predictive of empowerment. Another regression used the respondents' reported quality of life, community involvement, number of traditional mental-health services received, social support systems, and satisfaction with a self-help program. According to the results, the most useful predictors of empowerment were items measuring the quality of life, community engagement, the number of traditional mental-health services received, and overall life satisfaction.

Among individuals who were working, a significant relationship was found between the number of on-the-job hours and empowerment. Income and earning power have been linked to actual power, and access to monetary resources is considered the

second leg of empowerment (Rogers et al., 1997). The first leg that is considered critical to empowerment has already been discussed in a previous section. Not surprisingly, the amount of reported self-efficacy and self-esteem, along with one's optimism and perceived control over the future, is considered the most important aspect that must be present in order for an individual to feel empowered. Thus, the first leg of empowerment can be conceptualized as a sense of self-worth and belief that one's destiny and future life events are within one's control and capability. The third and final leg of empowerment includes righteous anger and community activism (Rogers et al., 1997). In other words, the ability to use the experience of anger over the maltreatment of individuals with SMI and the lack of resources to meet the needs of this population to create change on a sociopolitical level is thought to comprise this final leg of empowerment.

There appear to be many roads to empowerment, and research continues to build an evidence base of its predictors and its outcomes. However, consensus is lacking on how to define and, ultimately, how to conceptualize this important construct. The evidence presented in the literature continues to strongly suggest that individuals with SMI are more positively responsive to treatments that focus on the client as capable of being in control of his or her life. Furthermore, a paradigm shift in the belief that SMI is like any other illness, one from which individuals may recover, has created a need to reevaluate the delivery of services from all mental-health professionals. The therapeutic relationship and alliance is one logical place to start this shift.

Therapeutic Relationship in Mental-Health Treatment

Interest in the therapeutic relationship among researchers and clinicians alike has increased over the last several decades (Horvath & Bedi, 2002). In order to understand the continued research interest in this construct, several factors should be considered. First, a breadth of evidence suggests that different forms of psychotherapy produce similar benefits in patients (Stiles et al., 2004). Thus, the majority of clinicians accept that a large part of what the patient finds helpful in effecting change in thought and behavior patterns is shared among various treatment modalities (Horvath & Bedi, 2002). Therefore, focus on the generic factors that are found in most psychotherapies would obviously include the quintessential common ground of the therapeutic relationship (Horvath & Bedi, 2002).

Other reasons cited for the renewed interest in the therapeutic relationship can be traced to the impact of the person-centered theory developed by Rogers. This theory placed the therapeutic relationship at the core of the patient's healing process. In addition, it generated a large amount of literature that explored the interpersonal aspects of treatment. Other theoretical models, such as the psychodynamic and experiential perspectives, also focus on the relationship as the curative factor of the therapist-client interaction. Despite the assertion that the relationship is the necessary and sufficient factor for change in therapy, a lack of empirical validity for these claims apparently has lessened the influence of these models of the therapeutic relationship.

Finally, the concept and importance of the alliance has found ready use and acceptance in efforts to move toward an integration of the rise of theoretical eclecticism

that appears to have entered the field of psychology (Castonguay, 2000; Castonguay & Goldfried, 1994). In other words, with attempts to move toward theoretical integration and reconciliation of many of the therapeutic methods that remain in conflict with one another, researchers of varying theoretical backgrounds have been successful in integrating this concept into their integrated framework for therapy (Orlinsky & Howard, 1986). While the definition of empowerment continues to evolve, the literature on working alliance, or therapeutic alliance, has reached robust findings. This section will define therapeutic alliance, discuss the importance of a working relationship between the therapist and the consumer, and review both the therapist and the client factors related to an effective alliance.

Definition of Therapeutic Alliance

The therapeutic alliance is not synonymous with the therapeutic relationship. Therapeutic or working alliance has been defined as the relational, emotional, and collaborative cognitive connection between the client and the therapist (Johnson, Penn, Bauer, Meyer, & Evans, 2008; Karver, Handelsman, Fields, & Bickman, 2005). Specifically, it refers to the bond between the client and therapist and is recognized by the sense of trust the patient has in the therapist, a sense of feeling allied, and having a positive working relationship (Karver et al., 2005). Bordin (1979) was the first to postulate that a positive therapeutic alliance has three areas of agreement between the client and the patient: (a) the goals of treatment, (b) the tasks to achieve these goals, and (c) the personal bond between the two parties. Alliance is more than simply the degree to which the client is involved in accomplishing specific treatment tasks. In other words,

the alliance involves the role expectations of each party in the treatment (i.e., the therapist and the consumer), and their ability to form an attachment to one another. Bordin conceptualized the therapeutic alliance as the mutual agreement of the patient and therapist on the goals of the treatment, in which both parties agree on the tasks each is going to perform in the context of the relationship, and as the development of an attachment bond (Bordin, 1979; Summers & Barber, 2003).

Bordin saw the therapeutic alliance as something that developed over time in the relationship between the patient and the therapist. In addition, he believed that the alliance, and not just mere empathy or untargeted transference, was the vehicle through which all psychotherapies are effective. Finally, Bordin suggested that different theoretical models of therapy use different aspects of the therapeutic alliance and at different points over the course of the treatment (Bordin, 1979; Summers & Barber, 2003). Based on this definition of the therapeutic alliance, the onus of the responsibility in the treatment is not solely reliant on the consumer to listen to and enact certain behavioral changes to have effective outcomes. The onus of the responsibility is also on the practitioner to foster a strong alliance to ensure that the most efficacious outcomes are attainable.

Importance of Alliance in the Therapeutic Relationship

Psychotherapy research has emphasized the curative aspects of the therapeutic relationship for many years (Marmarosh et al., 2009; Norcross, 2002). A sizeable amount of literature supports assertions that the quality of the therapeutic alliance is predictive of the therapeutic outcome (Horvath & Greenberg, 1989; Marmarosh et al.,

2009). For example, outcomes research focusing on the therapeutic alliance has demonstrated that patients who are satisfied with their care have a greater likelihood of reporting greater self-confidence, being more motivated in their daily lives, practicing healthy behaviors, and following medical advice (Conboy et al., 2010; Greenfield, Kaplan, Ware, Yano, & Frank, 1988). In addition, they report having greater confidence in their practitioner, thus maximizing other nonspecific healing mechanisms (Conboy et al., 2010).

Evidence also suggests that the patient-therapist relationship may influence the patient's health status, as the relationship serves as a primary bond and offers a form of social support to the patient (Conboy et al., 2010; Kaplan, Greenfield, & Ware, 1989). The positive impact of the patient-therapist relationship on health status is important to note, as high perceived or actual support has been linked to improved health outcomes in human and animal studies (Conboy et al., 2010). Furthermore, patients who are less satisfied with their care are more likely to drop out of care, change practitioners, and report mistrust of their practitioner. These factors have been shown to undermine other aspects of the medical encounter that might be seen as adequate by the patient (Conboy et al., 2010). Therefore, providers of treatment must develop an awareness of their ability to align with consumers, as the quality of the connection may have a significant impact on the consumer's recovery.

Overall, the therapeutic alliance plays an important role in the therapeutic process. Of meta-analyses and narrative reviews on the role of the therapeutic alliance, across diagnoses, 66 to 70% have found a significant association between treatment outcomes

and the working alliance that develops over time with one continuous provider (Luborsky & Auerbach, 1985; Orlinsky, Grawe, & Parks, 1994). Green et al. (2008) suggested that individuals with SMI are particularly in need of continuity in their care because of the interference from their symptoms, associated memory problems, and other cognitive deficits related to their illness. These illness-related interferences create difficulty for the patient to be an active participant in his or her treatment (Green et al., 2008). Therefore, the quality of the alliance is important in establishing long-term therapist-client relationships. The strength of the relationship is an important predictor of outcomes in individuals with SMI.

In a study conducted by Barber, Connolly, Crits-Christoph, Gladis, and Siqueland (2009), the relationship among therapeutic alliance, treatment outcome, and early-in-treatment symptomatic improvement was measured in a group of 86 patients with various diagnosed mental illnesses. The results suggested that although alliance in early treatment could be influenced by prior symptomatic improvement, the alliance was found to be a significant predictor in the patients' further improvement when controlling for depression (Barber et al., 2009). The authors further stated that the role of the alliance as a potential causal factor in improvements remains consistent with the current theoretical and therapeutic role that has been suggested for alliance by previous researchers (Horvath & Bedi, 2002; Horvath & Greenberg, 1989; Horvath & Symonds, 1991).

Therapeutic Alliance and Treatment Outcomes

Qualitative and phenomenological research into the processes that positively influence the therapeutic relationship allows for the greater understanding of the factors

in therapy that enhance or reduce outcomes (Helmeke & Sprenkle, 2000). For example, qualitative studies have demonstrated that the more a practitioner responds to a service user's expressed practical needs, particularly in a timely manner, the greater the amount of trust the individual feels for the practitioner (Angell, 2012). The consumer is thought to trust the practitioner because swift follow-through communicates respect and understanding to the service user; the practitioner acknowledges that the needs of the service user are important. Therefore, the strength of the relationship increases, along with the likelihood that the service user will engage in treatment (Angell, 2012). The converse is also true – when practitioners fail to follow through on specific tasks that they have promised to do, service users report a tendency to disengage because they feel that their service providers have let them down and that they are unimportant to their practitioner.

Other qualitative studies have demonstrated that the manner in which clinicians communicate with their clients is integral to the development of the alliance and, therefore, the likelihood of positive follow-through in treatment and in outcomes (Angell, 2012; Kreyenbuhl, Nossel, & Dixon, 2009). Studies also show that using the consumers' own language to explain the symptoms they may be experiencing enhances the therapeutic relationship and treatment engagement (Angell, 2012). Furthermore, studies also demonstrate that by listening to consumers and allowing them to express their preferences for treatment, the practitioner can enhance the therapeutic relationship (Angell, 2012).

Despite the literature suggesting a strong relationship between effective working alliances on the treatment outcome of individuals with mental illness, few investigators have been able to answer the question of the predictive ability of the working alliance on subsequent change in symptoms or improved treatment outcomes (Barber et al., 2009). In fact, some studies have not been successful in demonstrating this relationship, but instead found that the alliance did not predict decreases in depression or substance abuse (DeRubeis & Feeley, 1990). These contradictory findings regarding the effects of the therapeutic alliance suggest that the primary factor for the predictive capability of the therapeutic alliance is the patient's perception of the relationship (Horvath & Bedi, 2002). Researchers have discussed the belief that nonspecific factors are important in the therapeutic process, particularly in outcomes-based research, which measures the collaboration and bond that are established between the consumer and the therapist (Barber et al., 2009; Castonguay, 2000; Conboy et al., 2010; Gaston, 1990). However, though rarely discussed in the literature, a positive therapeutic alliance early in treatment might be associated with a change in a patient's mood that has already occurred as a result of the therapy; thus, the patient may tend to view the therapist and the treatment positively, particularly if he or she has already experienced an improvement in mood (Barber et al., 2009). When considering this alternative view, one must determine if the positive therapeutic alliance is a predictor of positive treatment outcome, of the early treatment improvement, or of some interaction between these two factors (Barber et al., 2009). Therefore, this study will seek to corroborate or provide more information about the predictive nature of alliance.

The facilitation and development of respect that grow out of developing a strong positive therapeutic alliance seems to be an important factor in the positive treatment outcomes discussed throughout the literature on this topic. Health professionals' attitudes toward people diagnosed with SMI play an important role in the reduction of stigma and discrimination. Treating individuals with respect and dignity, and taking time to understand the needs and wants unique to the individual, are essential to the development of good therapeutic alliance (Barber et al., 2009). When the therapeutic alliance is built on a foundation of respect and dignity, the individual will engage more readily in the treatment process and feel more connected to the actual recommended treatment modality. Interestingly, in a study researching the distribution and association between specific mental illnesses and negative attitudes of mental-health professionals, individuals diagnosed with SMI were more likely to be perceived as being incapable of recovery and tended to be blamed for their mental illness (Crisp, Gelder, Rix, Meltzer, & Rowlands, 2000).

One can argue that an individual will be most likely to gain and maintain positive treatment outcomes by remaining in treatment. For example, literature supports the positive outcome for homeless individuals diagnosed with SMI in the presence of a strong therapeutic alliance with their case management teams (Chinman, Rosenheck, & Lam, 2000; Solomon, Draine, & Delaney, 1995). Additionally, in a study investigating whether premature termination of treatment for psychosis using cognitive behavioral therapy (CBT) was related to a person's recovery style and the therapeutic alliance, researchers found that individuals were more likely to drop out of treatment prematurely

if they disagreed on the goals and tasks of the treatment, as assessed by the Working Alliance Inventory (WAI) scale (Startup, Wilding, & Startup, 2006). Interestingly, those who dropped out of the treatment did not differ significantly in the Bond subscale of the WAI from those who remained in treatment. McGlashan (1987) argued that the goal of treatment should, therefore, not focus on altering the individual's personal recovery style, but to match treatment to the person's presenting style. This suggests the importance of alliance in the relationship, perhaps the greatest predictor of success in treatment.

The importance of the therapeutic alliance continues to be reviewed in the provision of psychotherapeutic treatments because, as previously noted, much of the treatment success relies on this aspect of care. Perhaps a corollary to the therapeutic alliance is the clinician's willingness to include the consumer in the process of treatment planning. The following section will review the current literature on participatory decision making. In particular, this section will discuss the definition of participatory decision making, the factors that are believed to contribute to this style of interaction, and the contribution this form of inclusion has on treatment outcomes.

Participatory Decision-Making

During the past several decades, the idea that patients should be involved in the decision-making process of treatment has arisen from advocacy efforts of the very consumers who are receiving the treatment. Involving individuals in treatment decision making is also garnering greater interest with the increasing pressure from insurance companies and professionals in the field to use evidenced-based treatment in treatment planning (Elwyn et al., 2001; Warner, 2009). Research evidence demonstrates that the

desires and choices of clients who have not been informed of choices in treatment change once they have been educated on both the benefits and the potential harms of different treatment options (Elwyn et al., 2001; Wolf, Nasser, Wolf, & Schorling, 1996).

Furthermore, if the clinician involved in the relaying of this information is skilled and sensitive to the individual needs and concerns of the patient, this change in choices is more likely to occur (Wolf et al., 1996). In reality, a patient's right to autonomy and self-determination will influence the clinician's proposed treatment plan even after the patient has been informed of his or her options. Through the model of participatory decision making (PDM), understanding this reality is critical to deciding how the clinician will collaborate with the patient (Elwyn et al., 2001). The need to honor patient's right to autonomy suggests to clinicians in the field the importance of understanding how inclusion in decision making can best be employed in order to increase the likelihood for successful treatment. The following presents a definition for inclusion in treatment decision making, also known as participatory or shared decision making.

Definition of Participatory Decision Making (PDM)

PDM between a practitioner and the consumer of the services refers to the amount of communication that is fostered by the clinician with the patient regarding the direction of the treatment (Street, Makoul, Arora, & Epstein, 2009). It denotes an interactive process during which clients and practitioners collaborate in order to make healthcare decisions (Adams & Drake, 2006). This collaboration assumes that both parties have important information to contribute to the treatment process. The practitioners hold information about the current and correct diagnosis, course of illness, treatment options,

moderating factors, and evidence-based information regarding and side effects of the different treatments (Adams & Drake, 2006). Likewise, the clients are the experts on their own values, treatment preferences, and goals for treatment (Charles, Gafni, & Whelan, 1997).

A crucial aspect of PDM is the presence of the patient's right to choose; the consumer makes decisions regarding the roles and the level of participation he or she will assume (Adams & Drake, 2006). If viewing choice as a spectrum with two opposing ends, then clients may fall along the continuum at different points. For instance, at one end, clients may adopt a dominant role in which they make the decisions and the practitioner merely provides the information on the risks and benefits. At the other end of the spectrum, the clients may opt to defer decision-making power and abrogate control, giving sole responsibility to the practitioner (Elwyn & Edwards, 2001). However, many clients choose a more balanced role in decision making. They prefer to engage in a dialogue with their practitioner about the treatment issue and reach a consensual agreement on treatment approach (Adams & Drake, 2006).

PDM, in general, involves a shared responsibility for developing and meeting treatment goals. A consumer with a possibly longer term illness, such as SMI, must learn to accept the need to take responsibility for his or her own care on a daily basis. For example, the consumer must remember to take medications not only for the mental illness, but also for any other medical illnesses for which medications may be prescribed. This part of gaining and/or maintaining wellness is essential. Given this example, however, both the practitioner and the client must keep in mind that the client's

perspective, capacity to make changes, and role will change over time (Adams & Drake, 2006). As has been outlined in the stages of change theory, a process of acceptance and responsibility is usually present in an individual who learns to manage a chronic or longer term illness (Prochaska, DiClemente, & Norcross, 1992). However, according to the current medical models of treatment for chronic and long-term illnesses, the clinician continues to be the client's guide in making choices about living with the condition and making an optimal adaptation (Adams & Drake, 2006; Auerbach, 2001). By participating in making healthcare decisions, or sharing the decision-making tasks, the client will most likely increase his or her engagement in treatment, and his or her "knowledge, confidence, skills, and commitment to making an optimal adjustment" (Adams & Drake, 2006, p. 88).

Factors Related to a PDM Style

Therapist variables. Research suggests that practitioners who present options to consumers, who discuss thoroughly the pros and cons of the options, who elicit the consumers' preferences, and who establish mutually agreed-upon goals are said to have employed a PDM style (Kaplan, Greenfield, Gandek, Rogers, & Ware, 1996). These treatment providers are thought to have greater success in their alliance with their patients, which may result in better treatment outcomes when compared to physicians who have a more controlling decision-making style (Kaplan et al., 1996).

Research also suggests that practitioners' sense of autonomy is an important key in the use of an inclusive decision-making style (Adams & Drake, 2006; Kaplan et al., 1996). Kaplan et al. (1996) determined that physicians who reported being satisfied with

the amount of personal autonomy they experienced in their jobs and who reported practicing independently were rated as more participatory than physicians who were not satisfied. Therefore, if personal autonomy is related to a more inclusive treatment style, then physicians' perceptions of more control in their practice are more likely to engage in a PDM approach to treatment. Furthermore, practice situations that encourage a sense of autonomy may enhance the quality of interpersonal care that the physician is providing (Kaplan et al., 1996). Practice volume may have a large impact on the ability of physicians to interact in an inclusive treatment style because physicians in busy practices may be unable to spend the time that is necessary to develop rapport and allow for the free discussion of questions about treatment, treatment options, and preferences for treatment approach (Kaplan et al., 1996). Therefore, the quality of interpersonal care may be underestimated as a consequence of practice volume (Kaplan et al., 1996).

In addition to perception of autonomy, a physician's race had an impact on patients' perceptions of inclusion. For example, in the Kaplan et al. (1996) study, nonwhite physicians were reported to be less participatory than their white counterparts after adjusting for the greater practice volume of nonwhite physicians. Kaplan et al. (1996) did not publish their thoughts about the reason for this apparent discrepancy, though they did recommend that future efforts should explore cultural differences that may have impacted the physician's interpersonal style and technical care. However, underlying multicultural and diversity issues may have an impact on the experience of the patient, or the practitioner may also practice with a more exclusionary style.

Consumer variables. Research on the interaction between medical doctors and their patients has demonstrated that consumers who feel they have an active part in their treatment decision making are more likely to follow through on those decisions than those who do not have an active role (Kaplan et al., 1996). This apparent relationship between treatment engagement and inclusion in treatment decision making has particular relevance for practitioners who treat individuals with a chronic or longer term illness, as the majority of the treatment plan must be carried out by the consumers (Kaplan et al., 1996). In order for maximum treatment effectiveness, the consumer needs to commit to working daily on his or her treatment plan and recommendations. In addition, patients who ask more questions of their doctors, who elicit treatment options, and who express their treatment preferences during their visits with their physicians have measurably better health outcomes than those patients who are more passive in their interaction style (Kaplan et al., 1996). Although the previously cited literature focused on the communication style of physicians in the medical realm of practice, and not on therapists or behavioral-health professionals, the information is at least relevant to the understanding of the importance of inclusion in treatment planning. There is a dearth of literature that focuses specifically on the construct of PDM in the behavioral-health profession. Therefore, results from this study will increase the current literature that exists about this important concept.

PDM Style and Treatment Outcomes

Physicians are encouraged to adopt a treatment style that involves the consumer in decision making because the evidence from the medical literature suggests that this

approach can help a patient gain control of a chronic disease and experience greater functional outcomes (Shields, Franks, Fiscella, Meldrum, & Epstein, 2005). However, to date the evidence for these outcomes is mixed (Adams & Drake, 2006). Literature, though sparse, supports both the self-reported improvement of functioning in individuals and the lack of improvement in outcomes related to illness management when a treating physician uses a PDM style. Improvements in functioning are generally related to the reported reduction in psychological distress that has become associated with the practitioner's provision of information and adoption of a more client-centered communication style (Kiesler & Auerbach, 2003). Clients who are under the care of a practitioner who engages in a PDM style reported more satisfaction in their care than a control group whose practitioners did not utilize a PDM style (Adams & Drake, 2006). Although perceived PDM is associated with positive outcomes, the results appear to be related solely to the clients' perceptions (Greenfield et al., 1985). Rogers, Vergare, Baron, & Salzer (2007) have suggested that providers' anticipation of clients' treatment "failure" may prevent the development of a sense of ability to take risks and pursue meaningful goals. The positive impact of a PDM style suggests the need for further understanding of ways providers can engage individuals in their treatment, including getting a better understanding of what the individuals' goals are and communicating clearly with the individuals through a process of informed consent and inclusion in the process (Epstein, Alper, & Quill, 2004).

Studies that have been conducted on patients' perceptions of their physicians' efforts to include them in the decision-making process have reported greater patient

satisfaction, better self-management of the illness, increased likelihood that the patient will request information about alternative or complementary treatments, decreased need for hospitalization, and better health-related quality of life (Heisler, Bouknight, Hayward, Smith, & Kerr, 2002; Kaplan et al., 1996; Sleath, Callahan, Devellis, & Beard, 2008). Additionally, communication styles appear to be related to PDM style. In a study that measured cancer survivors' perceptions of their treating physicians' tendencies to utilize a PDM style, researchers found that physicians' PDM style was significantly related to proximal communication about the treatments and illness, intermediate cognitive outcomes, and distal health outcomes. Furthermore, survivors were more likely to feel and be more confident in actively participating in the treatment decision-making (Neeraj, Weaver, Clayman, Oakley-Girvan, & Potosky, 2009). In the same study demonstrated that use of a more inclusive style of decision making by the physician may be associated with better mental health by both increasing survivors' perceptions of personal control and enhancing the level of trust between the physician and the patient (Neeraj et al., 2009). Therefore, although a gap remains in the literature demonstrating the connection between PDM and empowerment, as suggested by Street et al. (2009) and results from the previously mentioned study, physicians who involve their patients in the process of treatment are more likely to increase and enhance their patients' sense of self-efficacy for interacting with their physicians.

PDM Style and Treatment Engagement

The medical field has been studying the benefits of adopting and using an inclusive decision-making style for a longer duration and in more depth than has the

behavioral-health field. Previously unchecked power differentials between physician and patient resulted in a culture of belief that the patient was to be seen as a passive recipient of decisions that were made by the physician (Auerbach, 2001). However, with the rise of awareness and dissemination of recovery-oriented approaches to treatment, the paternalistic approach has been challenged on both the ground level and by policy-makers, calling for increased inclusion in treatment decision making by the patient (Auerbach, 2001; see New Freedom Commission on Mental Health, 2003a/2003b). Since these challenges, both medical professionals and lay people have argued that patients should be fully informed of important medical information and be active participants in their care (Auerbach, 2001). This change was made in order to correct, or balance, the misappropriated power differential. Although the behavioral-health field has been slow to include this important concept into the provision of care and delivery of services, the call to action since the development of the Recovery to Practice Initiatives and Guidelines has brought into light the value and validity of this approach in delivery of treatment services.

Using an inclusive approach to treatment planning implies care and concern about the patient's needs, desires, and wishes. It also implies the active engagement of patients by treating clinicians in all areas of decision making and involves, at a minimum, a clinician and the patient, as well as other members of the patient's family and/or support network. Shared decision making requires both parties in the relationship to share information, where the clinician provides information about the options and the potential risks and benefits and the patient makes an informed decision of the course of treatment

(Barry & Edgman-Levitan, 2012). Research results investigating the effectiveness of increasing treatment engagement of individuals with SMI are mixed. In a meta-analysis conducted by Cochrane Systems reviewing the primary and secondary effects of inclusion in decision making between inpatient individuals diagnosed with schizophrenia and individuals in primary care newly diagnosed with depression, no evidence of effect on clinical outcomes or hospital readmission rates was found in either population. Furthermore, the intervention did not increase patients' compliance with their treatment plans. However, some evidence suggested that interventions that were introduced to increase shared decision making did positively affect physician facilitation of patient involvement in decision making and did not require longer consultation times (Duncan, Best, & Hagen, 2010). The consensus of the researcher was that no firm conclusions could be drawn from the two sample populations that were used in the research. However, of note, the results indicate the need for further research into the potential benefactors of satisfaction with received treatment and engagement in the treatment.

In another meta-analysis conducted by the group, two studies of relatively good quality were identified and then examined for the impact that a clinician's use of an inclusive decision-making style had on treatment outcome satisfaction, health outcomes, and readmission rates (Duncan et al., 2010). In one of the two studies, the intervention had a short-term positive effect on satisfaction with the treatment. In the other study, consumer involvement in the decision-making process was increased when the physician led the intervention. Of note, no effects were obtained on the clinical and health service outcomes in either of the studies. The lack of sufficient evidence regarding the use of an

inclusive decision-making style suggests that further research is needed to determine the impact that shared decision making has on engagement in treatment.

Self-Efficacy, Empowerment, Alliance, and PDM Style in Individuals with SMI

Evidence supports the importance of having a PDM style for treatment success in the provision of mental-health services. However, both the clinician and the consumer of services contribute to the development of this important style of communication. In order to best set the foundation for treatment success in individuals with SMI, issues of self-efficacy, consumer empowerment, development of a strong therapeutic alliance, and inclusion in treatment decision making are several necessary components that must be considered. Although literature examines these constructs individually, or with other aspects of treatment outcomes, no studies have evaluated the interaction of these four variables on perceived treatment outcome for an individual with SMI.

In lieu of the mandate to transform the delivery of behavioral-health services in the United States, the constructs in this study represent an attempt to better understand the constructs and the processes that yield effective treatment outcomes in the presence of a recovery-oriented approach to treatment. Therefore, this study seeks to determine the relationships among and the relative contributions of the constructs of empowerment, therapeutic alliance, self-efficacy, and PDM style on the treatment outcomes in individuals diagnosed with SMI. In addition, this study seeks to better understand how these three constructs interact with and influence one another (see Figure 1)². There is a

² Anticipated relationships are that overall global empowerment and the working alliance will predict perceived efficacy in patients' interactions with their physicians, a more specific variable. Additional expected relationships are that overall empowerment (ES), the working alliance and perceived efficacy in interactions with physicians will predict inclusion in treatment decision making. All of these constructs will be predictive of perceived treatment outcomes operationalized as satisfaction with treatment.

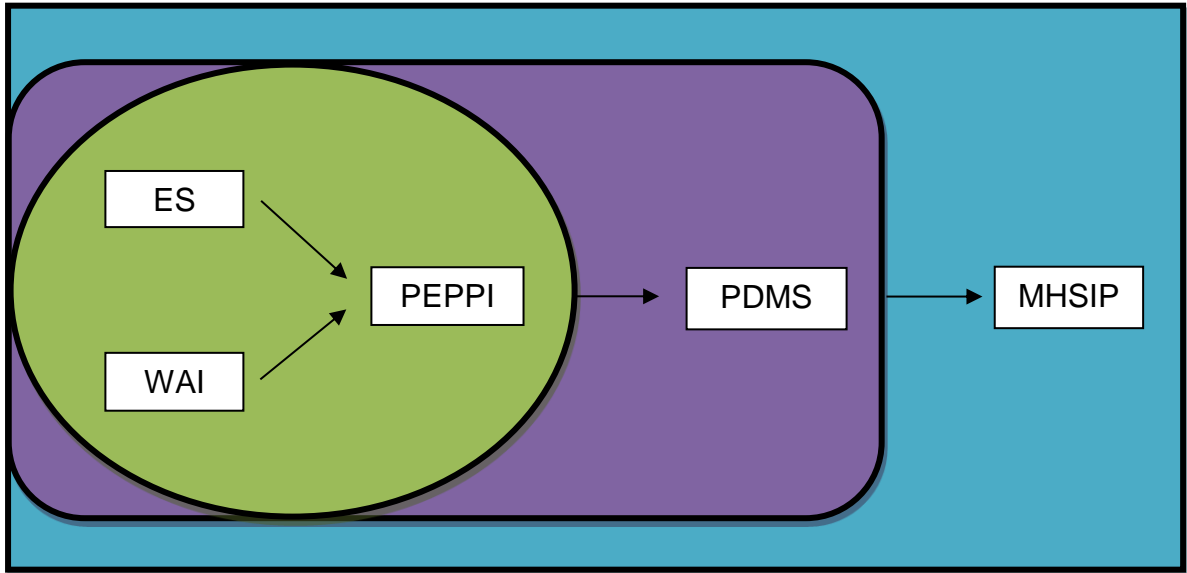


Figure 1. Conceptual model of hypotheses 1, 2, and 3. ES = Empowerment Scale; WAI = Working Alliance Inventory-Client Version, Short Form; PEPPi = Perceived Efficacy in Patient-Physician Interaction Scale; PDMS sum = Participatory Decision-Making Scale (sum score); MHSIP sum = Mental Health Statistics Improvement Program (sum score).

dearth in the literature to explain the relationship between empowerment and PDM, empowerment and satisfaction with received treatment, and treatment specific self-efficacy and empowerment. Results from this study will provide important information that will help to guide program development and training for clinicians providing services to the individuals and to guide future research on effecting positive treatment outcomes for individuals with SMI. Furthermore, the information specifically related to the impact of consumer rated perceptions of empowerment will serve to increase the current literature about this dynamic construct. Finally, anticipated results will assist those providing behavioral-health services to individuals with SMI to better conceptualize the factors that are more likely to result in consumer follow-through of treatment planning,

particularly in relation to the required transformation that is occurring in the delivery of mental-health services.

Classes of Predictors

These correlates of treatment outcomes can be categorized into several classes of predictors that can be conceptualized as within or internally based, like a trait versus state characteristic, and externally based or process-related variables. For the purposes of this study, the construct of empowerment should be considered a trait-specific characteristic, where the individuals' sense of global empowerment is measured by the Empowerment Scale. Additionally, the construct of self-efficacy should be considered to be a state-specific characteristic, in that the individual's sense of self-efficacy is context dependent on his or her perception of the effectiveness of interactions with physicians. Self-efficacy is measured by the Perceived Efficacy in Patient-Physician Interaction Scale. The construct of PDM should be considered an external variable that is reliant on the physician/clinician's style of more or less inclusion afforded to the client in treatment decision making. PDM is measured by the Participatory Decision-Making Scale. Finally, the construct of therapeutic alliance should also be considered to be a process-related external dependent variable, such that the therapeutic alliance requires by definition the bond that develops between the therapist/clinician/physician and the individual. The therapeutic alliance is measured by the Working Alliance Inventory-Client Version-Short Form.

Chapter 3: Hypotheses

Research Question 1

What is the relative contribution of the therapeutic alliance and global empowerment to patients' perceived self-efficacy in their interactions with their physicians? Does the working alliance, as measured by the Working Alliance Inventory-Client Version, Short Form (WAI-C-S), and perceived global empowerment, as measured by the Empowerment Scale (ES), predict patients' perceived self-efficacy in their interactions with their psychiatrists, as measured by the Perceived Efficacy in Patient-Physician Interactions Scale (PEPPI)?

Alternative Hypothesis 1

High levels of self-reported working alliance and global empowerment are positively correlated to greater reports of perceived self-efficacy in patients' interactions with their psychiatrists.

Null Hypothesis 1

High levels of working alliance and global empowerment will not be significantly related to high levels of reported perceived self-efficacy in interactions with psychiatrists.

Justification for Hypothesis 1

The importance of the working alliance in therapeutic interactions has been repeatedly documented as an important predictor in therapeutic outcome (Barber et al., 2009; Green et al., 2008; Pos, Greenberg, & Warwar, 2009). For individuals with SMI, this relationship can be difficult to secure at times and can take longer to develop (Barber et al., 2009). The therapeutic alliance has been linked to greater reports of self-efficacy

in individuals diagnosed with SMI (Rogers et al., 1997). Thus, individuals' reports of greater therapeutic alliance should result in higher endorsement of self-efficacy when interacting with their physicians.

Summary of Relevant Work

The relevancy of the construct of therapeutic alliance in the ability of an individual with SMI to recover and lead a meaningful and productive life has been a large focus of the treatment of mental illness (Horvath & Bedi, 2002; Horvath & Greenberg, 1989; Horvath & Symonds, 1991; Pos et al., 2009). When therapy begins, clients respond globally to the experience by their desire to be listened to and to engage in the therapeutic process. Without these needs being sufficiently met in a timely manner, there is a risk of early termination (Horvath & Bedi, 2002). In a study conducted by Barber et al. (2009), results suggested that although alliance in early treatment could be influenced by prior symptomatic improvement, the alliance was found to be a significant predictor in patients' further improvement when controlling for other potential comorbidities (Barber et al., 2009). Therefore, for individuals with SMI, the perceived therapeutic alliance is an important construct to measure in order to achieve the goal of recovery from psychiatric disability.

Research Question 2

To what extent does perceived self-efficacy in interactions with psychiatrists, perceived global empowerment, and perceived therapeutic relationship predict patients' perceptions of inclusion in treatment decision making? How does individuals' perceived self-efficacy in interactions with their psychiatrists, as measured by the Perceived

Efficacy in Patient-Physician Interactions Scale (PEPPI), perceived global empowerment, as measured by the Empowerment Scale (ES), and perceived therapeutic alliance, as measured by the Working Alliance Inventory-Client Version, Short Form (WAI-C-S), impact on a patients' perceptions of inclusion in treatment decision making, as measured by the Participatory Decision-Making Scale (PDMS)?

Alternative hypothesis 2

Individuals who report higher levels of perceived self-efficacy in interactions with their psychiatrists, higher sense of global empowerment, and greater alliance with their clinicians will report greater sense of inclusion in treatment decision making. Individuals who report low levels of perceived self-efficacy when interacting with their psychiatrists, low global empowerment, and minimal alliance with their clinicians will report not feeling included in making treatment decisions.

Null Hypothesis 2

The level of perceived self-efficacy and therapeutic alliance individuals experience with their psychiatrists and the level of global empowerment that individuals experience in their daily lives will not be correlated with their sense of inclusion in treatment decision making.

Justification for Hypothesis 2

Physicians are encouraged to adopt a treatment style that involves the individual in the decision-making process because of the evidence in early literature that suggests that this approach can help a patient gain control of a chronic disease and experience greater functional outcomes (Shields et al., 2005). Because of the real concern of rising

healthcare costs for these particularly vulnerable individuals, determining any factors that may mitigate the use of expensive crisis services is important.

Summary of Relevant Work

Self-efficacy has been linked to better treatment outcomes for individuals with SMI (Raggi et al., 2009). It is also considered an important factor in empowering individuals. The presence of self-efficacy is very essential when dealing with a chronic illness because it can impact the amount of effort, perseverance, resilience, and adherence to treatment (Raggi et al., 2009). These factors are all key in the successful management of a chronic disease. Having a high sense of self-confidence in one's own ability to act in a way that will help to control symptoms of mental illness has been found to have health-enhancing effects in itself (Marks et al., 2005; Raggi et al., 2009). Conversely, having low self-efficacy may mediate the change in disease self-management behaviors, resulting in negative physical and mental-health outcomes (Marks et al., 2005). When considering SMI, often a chronic disease, one can appreciate the importance of self-efficacy to outcomes is evident.

Research Question 3

What is the relative contribution of the therapeutic alliance, perception of global empowerment, perceived self-efficacy in interactions with physicians, and inclusion in treatment decision making to individuals' perceived treatment outcomes? How does the therapeutic alliance, as measured by the Working Alliance Inventory-Client Version, Short Form (WAI-C-S), global empowerment, as measured by the Empowerment Scale (ES), self-efficacy in interactions with physicians, as measured by the Perceive Efficacy

in Patient-Physician Interactions Scale (PEPPI), and perception of inclusion in treatment decision making, as measured by the Participatory Decision Making Scale (PDMS) impact individuals' perceived treatment outcomes, as measured by the Mental Health Statistics Improvement Program Consumer Survey (MHSIP)?

Alternate Hypothesis 3

Perception of positive treatment outcomes in individuals diagnosed with SMI is predicted by the therapeutic relationship, sense of personal empowerment, sense of perceived efficacy in their interactions, and the physician's inclusive style in treatment decision making.

Null Hypothesis 3

The perceptions of individuals with SMI regarding inclusion in treatment decision making, the therapeutic relationship, personal empowerment, and sense of efficacy in interacting with their clinicians is not related to their self-reported treatment outcomes.

Justification for Hypothesis 3

Accumulating data collected from empirical studies show that patients of physicians who approach patient care by encouraging them to participate more actively in treatment decision making have more favorable health outcomes (Greenfield, Kaplan, & Ware, 1985; Kaplan, Greenfield, & Ware, 1989). Furthermore, the quality of the therapeutic alliance and the presence of personal empowerment are important factors in an individual's recovery from SMI (Barber et al., 2009; Resnick et al., 2005).

Summary of Relevant Work

Evidence in research demonstrates that the desires of patients who have not been informed of choices in treatment alter once they have been informed of both the benefits and the potential harms of different treatment options (Elwyn et al., 2001; Wolf et al., 1996). Furthermore, if the clinician involved in the relaying of this information is skilled and sensitive to the individual needs and concerns of the patient, this change in desires is more likely to occur (Wolf et al., 1996). Elwyn et al. (2001) suggested that, “any attempt to measure involvement in decision-making should therefore consider to what degree (if any) a health professional portrays choices and invites patients to participate in the decisions, along with other processes that may be associated” (p. 6). Understanding that patients’ rights to autonomy and self-determination can usurp the professional clinician’s point of view even after they have been informed of their options is critical to deciding how the treatment will progress (Elwyn et al., 2001).

Chapter 4: Methods

Overview

This study sought to determine the relative contribution of empowerment, as defined previously, and working alliance on an individual's reported perceived efficacy in patient-physician interactions. Secondly, this study also sought to determine the importance of the perceived efficacy that individuals experience in their interactions with their physicians. Finally, this study sought to determine the relationships between the previously mentioned variables on perceived satisfaction of treatment received. The constructs used in this research included empowerment, working/therapeutic alliance, treatment outcomes, participatory decision making (PDM), and self-efficacy. This study used the empowerment scale (ES), Working Alliance Inventory-Client Version, Short Form (WAI-C-S), the Mental Health Statistics Improvement Program Consumer Survey (MHSIP) scale, the Participatory Decision-Making Scale (PDMS), and the Perceived Efficacy in Patient-Physician Interactions Scale (PEPPI) to measure these constructs.

Design and Design Justification

This study used an existing data set to assess the nature of the relationships between global empowerment and working alliance on individuals' perceived efficacy in their interactions with their physicians. This study also used the existing data set to determine the relationship between perceived efficacy and their treatment outcomes.

Data Set

This data set was part of a large longitudinal study consisting of 396 individuals who were served at community mental-health centers throughout the city of Philadelphia.

As a result of the large size of the data set, this study was able to answer important questions about how the constructs of empowerment, working alliance, and self-efficacy are correlated with the individuals' sense of inclusion in treatment decision making and their perceived treatment outcomes. Furthermore, using an existing data set minimized the risk of loss of confidentiality and anonymity, as this data set consisted of information that was deidentified.

Participants

Three hundred and ninety-six (396) participants were recruited at three area community mental-health agencies in Philadelphia, Pennsylvania, for the original study. These agencies included Community Organization for Mental Health and Retardation (COMHAR), Community Council, and Hall Mercer, and agreed to work with the research team from the University of Pennsylvania. All 396 participants completed the baseline interviews. Data were collected from an approximately equal number of participants at each of the participating sites. In all, 247 participants (62%) were Black, and 149 participants (38%) were White, according to administrative records provided by each agency. The data on racial background obtained by Salzer, Brusilovsky, Rothbard, and Hadley (2007), client self-reported information, were different from agency-based records in that 199 participants reported they were Black, and 123 participants said they were White.

Inclusion and Exclusion Criteria

Inclusion Criteria for Original Data Set

The criteria for eligibility, as determined by Salzer et al. (2007), included the following: (a) individuals with a primary Axis I diagnosis of schizophrenia, a schizophrenia-spectrum disorder, or major depression; (b) individuals who were categorized as White or Black in the records of participating agencies; (c) individuals over the age of 18 years; and (d) individuals who were receiving prescriptions for psychiatric medication from the mental-health agency.

Exclusion Criteria for Original Data Set

Individuals who were unable to read or speak English were excluded from participating in the original collection of the data. In addition, individuals who could not be reached by phone call were excluded from participating in the original data collection.

Screening Procedures for Original Data Set

Screening procedures were used to verify the presence of an Axis I diagnosis of schizophrenia or major depression. The screening process entailed having the participant sign a release of information that would allow the research team to contact an agency staff member, identified by the participant, to confirm the participant's diagnosis according to patient records.

Recruitment for Original Data Set

The research staff involved in the original recruitment procedures informed the staff at the participating agencies of the opportunity for consumers with SMI to participate in a research study. They then directed staff to approach their consumers to

inform them of the study and gain their consent for research staff to contact them. A consent to contact form was completed and then returned to the research staff. All subjects who consented to speak to the research staff were contacted and informed about the study. If they agreed to participate, they then provided written consent, and completed a baseline interview, and follow-up interviews.

Plan for Informed Consent Procedures

This study used a preexisting archival data set. Therefore, this study did not require further informed consent procedures.

Measures

Perceived Efficacy in Patient-Physician Interactions Scale (PEPPI; Maly et al., 1998)

The PEPPI was developed to measure subjects' sense of perceived self-efficacy in their interactions with their physicians. The scale assesses patients' subjective sense of confidence when interacting with their physicians (Maly et al., 1998). The scale is comprised of 10 questions that were developed to measure patients' confidence in their ability to elicit and comprehend the information they receive, as well as to communicate information to their physicians. It was also designed to measure patients' confidence in their ability to get their physicians to address and act on their reported medical concerns. The items that are included in the scale are based on issues that older adult patients brought to light about their interactions with their physicians in open-ended questioning during a study of adherence with geriatric assessment recommendations, as well as the authors' observations of or participation in encounters between patients and their

physicians (Maly et al., 1998). Each item of the PEPPI begins with the basic leading question of, “How confident are you in your ability to...” Subjects respond to each question on a Likert scale of 1 to 5, with 1 representing “not at all confident” and 5 representing “very confident” (Maly et al., 1998). Thus, the range of possible scores for the 10-item PEPPI scale is 10 to 50, with 50 representing the highest possible amount of patient-perceived self-efficacy. The full scale takes approximately 3 minutes to administer, with no reported comprehension difficulties from the subjects (Maly et al., 1998). The internal reliability coefficients (Cronbach's alpha) for the full 10-item PEPPI scale are calculated to be 0.90 and 0.91. Thus, the PEPPI demonstrates high convergent and discriminant construct validity (Maly et al., 1998).

Empowerment Scale (ES; Rogers et al., 1997)

This scale was developed by Rogers et al. (1997) to measure the amount of global empowerment that mental-health consumers experienced when interacting with their physicians during regular medication appointments. It is being used in this study to determine the amount of perceived global efficacy or empowerment that a participant was experiencing at the time of data collection. It consists of a 28-item, self-report survey. The scale yields a total empowerment scale, as well as five subscale scores derived from a factor analysis (Rogers et al., 1997). The subscales include self-efficacy-self-esteem, power-powerlessness, community activism, righteous anger, and optimism-control over the future (Brown et al., 2008). In two studies of reliability using Cronbach's alpha, the full scale yielded high internal consistency of .85 and .86; the reliability coefficients for

internal consistency for five subscales ranged from .51 to .91 (Rogers et al., 1997; Wowra & McCarter, 1999).

The authors developed a survey with the assistance of a consumer research advisory board. At the beginning of the research project, 10 individuals were selected to be a part of a consumer research advisory board (Rogers et al., 1997). These individuals were leaders in the consumer/survivor movement and were able to represent the various factions of that movement. The board then held several meetings to design and plan the research study, as part of the participatory action research that is encouraged by consumer activist groups (Rogers et al., 1997). During the meetings, the board outlined 15 attributes of empowerment, based on the definition of psychological empowerment previously reviewed (Rogers et al., 1997). After arriving at a consensus about the definition and its many dimensions, the board determined the items for the scale. They were modeled after the Rotter Internal-External Locus of Control instrument, the Self-Efficacy Scale, and the Rosenberg Self-Esteem Scale (Rogers et al., 1997).

Working Alliance Inventory – Client Version, Short Form (WAI-C-S; Horvath & Greenberg, 1989)

The WAI-C-S was used in this study to measure the perceived amount of therapeutic alliance that the patient experienced in the interaction. This tool was developed by Horvath and Greenberg (1989). This 36-item scale consists of a 7-point Likert scale, anchors, and three subscales. These subscales include the degree to which the client and therapist bond or become attached, the degree to which the client and therapist collaborate on specific therapeutic activities or tasks, and the degree to which

the client and therapist agree on the global objectives or goals of the therapy (Horvath & Greenberg, 1989). Cronbach's alpha for the total score is .92, and the subscales all have reliability estimates that are greater than .74, suggesting adequate reliability (Horvath & Greenberg, 1989). In order to reduce the possibility of a social desirability bias, the participants were informed that their responses would not be shared with their respective therapists, but would be available only to the research team (see also Salzer et al., 2007).

Mental Health Statistics Improvement Program Adult Consumer Survey (MHSIP; Eisen et al., 2001)

The MHSIP Consumer Survey was developed with input from stakeholders involved and connected with the Center for Mental Health Services (Eisen et al., 2001). The purpose of the measure was to evaluate the performance of a mental-health system in the domains of accessibility, quality and appropriateness of services, and treatment outcomes from the consumers' perspective (Jerrell, 2006). Satisfaction items were also included in the scale. After the psychometric properties were analyzed, structures of three factors were confirmed using 16 items. These include access to care, quality and appropriateness of services, and outcomes (Jerrell, 2006). Satisfaction questions were widely used, making the scale a 21-item survey (Jerrell, 2006). This scale is based on a Likert scale, where 1 indicates "Strongly Agree" and 5 indicates "Strongly Disagree." For all of the subscales, the Cronbach's alpha coefficients were in the good range, from 0.73 to 0.81 (Jerrell, 2006). In addition, the interscale correlation coefficients were in the moderate range, from 0.42 to 0.58, indicating a moderate degree of independence among the subscales (Jerrell, 2006). Finally, the Cronbach's alpha coefficients between the

subscale scores and the total score were consistently in the good to very good range, from 0.77 to 0.88 (Jerrell, 2006). Thus, the MHSIP Adult Consumer Survey psychometric results indicate good internal consistency, moderate test-retest reliability, and good convergent validity with consumer perceptions of other aspects of their overall care.

Participatory Decision Making Scale (PDMS; Kaplan et al., 1996)

The original PDMS is a three-item scale developed by Kaplan et al. (1996). It requires patients to rate the extent to which physicians used a participatory style during their provision of services. The PDMS measures participatory decision-making style by asking patients to rate how often or how much the physician: 1) involves them in treatment decisions, 2) gives a sense of control over their medical care, and 3) asks them to take some responsibility for their care (Kaplan et al., 1996). The scale has been found to have a Cronbach's alpha of 0.74 in prior research.

Procedure for Original Data Collection

Each participating agency created four lists with the names of the consumers meeting the previously noted criteria (Salzer et al., 2007). They were separated by race and diagnosis to form the following groups: 1) White and schizophrenia spectrum disorder; 2) African American and schizophrenia spectrum disorder; 3) White and Major Depression diagnosis; and 4) African American and Major Depression diagnosis. Once the lists were obtained, chart reviews were completed to verify the diagnosis of each individual to ensure continued eligibility for the study. The names on each list from the participating sites were then randomly ordered. The participants were then interviewed in person by the research team after agency staff had obtained a 'consent to contact'

form. Three interviews were completed. The first interview provided baseline information. The second interview was conducted six months later, and the third interview was conducted 1 year later after the initial baseline interview. This study used information from the first interview only.

Analysis of Risk/Benefit Ratio

Potential Risk to Participants

The data for this study came from an already completed research project. All of the information was de-identified before it was made available for analysis. Therefore, there was no additional potential for risk to the participants.

Potential Benefit to Participants

There will be no potential benefit to participants in this study, as this is an archival data set. However, the results of this study will benefit others who have been diagnosed with a serious mental illness, such that the mental health professionals working with these individuals will help to enhance empowerment and ultimately perceived efficacy.

Potential Benefit to Others

This study will serve to improve the current understanding of the relationship of empowerment on treatment outcomes in an individual with a serious mental illness. Specifically, it expands on the current definition of empowerment to provide clearer use of the construct.

Procedures for Maintaining Confidentiality

As previously noted, this study utilized data from an already completed research project, and was de-identified for the purposes of running statistical analyses that heretofore have not been run. Therefore, this study did not risk breaching confidentiality of the participants in any way.

Chapter 5: Results

In the current study, three sets of hierarchical regressions were conducted to examine the following three questions: (a) Does the working alliance and perceived global empowerment predict patient's perceived self-efficacy in their interactions with their psychiatrists?; (b) To what extent does perceived self-efficacy in interactions with psychiatrists, perceived global empowerment, and the therapeutic or working alliance predict patients' perceptions of inclusion in treatment decision making?; and, (c) What is the relative contribution of the therapeutic alliance, perception of global empowerment, perceived self-efficacy in interactions with physicians, and inclusion in treatment decision making to the individuals' perceived satisfaction with treatment?

In addition to the hierarchical regressions just described and those presented later, hierarchical regressions were also run with demographics in the first step for each hypothesis in order to control for potential confounding variables. The demographic variables included race, gender, diagnosis, socioeconomic status, residential status, employment status, and education. Race was broken into two categories, Black or White, as part of the inclusion criteria of the original data set as previously noted. Gender was broken into two categories: male or female. Participants' diagnoses were separated into two categories in accordance with the original data set: Major Depression or a schizophrenia-spectrum disorder (including schizophrenia, schizoaffective disorder). Socioeconomic status was determined by whether the participant received social security income (e.g., SSI or SSDI). Residential status included the presence of homelessness, including lifetime experience of homelessness. Employment status measured whether the

individual was or was not employed at the time of the original data collection. Finally, participants' educational status included the following three categories: High School, Less Than High School, or More Than High School.

Of the total of 396 individuals included in the study, 149 (37.6%) were White, while 247 (62.4%) were Black. Two hundred thirty three women were involved in the study (58.84%). In addition, 158 individuals had a confirmed diagnosis of Major Depression (39.9%) and 238 participants were diagnosed with a schizophrenia-spectrum disorder (60.1%).

Among the diagnostic breakdown, of the 158 individuals with a diagnosis of Major Depression, 156 completed the WAI-C-S, 157 completed the ES, 157 completed the PEPPI, 153 completed the PDMS, and 156 completed the MHSIP. Of the 238 individuals diagnosed with a schizophrenia-spectrum disorder, 232 completed the WAI, 237 completed the ES, 237 completed the PEPPI, 228 completed the PDMS, and 236 completed the MHSIP. A complete listing of all demographic variables is shown in Table 1. The means and standard deviations of the dependent and independent variables are listed in Table 2.

The results from the additional regressions accounted for only a very small percentage of the variance in the variables of interest. For this reason, the regressions with the demographics are not presented in the Results section of this document. The only demographic that demonstrated some contribution, though insignificant, was the diagnosis of schizophrenia/schizophrenia-spectrum disorder. The reason for the result is

unclear; however, because of the importance of developing recovery-oriented care for all people with SMI, attempts were made to explain the findings in the Discussion section.

Table 1
Demographics of Patient Participants

Characteristic	<i>N</i>	%
Gender		
Female	233	58.84
Male	163	41.2
Race/ethnicity		
White	149	37.63
Black	247	62.37
Education ^a		
Less than high school	169	43.56
High school	123	31.70
More than high school	96	24.74
Employment ^b		
Not currently employed	349	88.35
Currently employed	46	11.65
Diagnosis		
Major Depression	158	39.90
Schizophrenia	238	60.10
SSI Income ^c		
0 (does not receive SSI)	63	15.95
1 (does receive SSI)	332	84.05
Ever Homeless ^d		
Has not been homeless at one point	205	51.90
Has been homeless at one point	190	48.10

Note. *N* = 396. SSI= social security income. ^aMissing demographic data in the Education category: 8 missing. ^bMissing demographic data in the Employment category: 1 missing. ^cMissing demographic data in the SSI Income category: 1 missing. ^dMissing demographic data in the Ever Homeless category: 1 missing.

Table 2
*Means and Standard Deviations of Dependent Variables
 and Independent Variables*

Measures	<i>N</i>	<i>M (SD)</i>
ES	394	2.79 (0.28)
WAI-C-S	388	5.41 (1.17)
PEPPI	394	3.72 (0.90)
PDMS sum	381	7.96 (2.38)
MHSIP sum	392	17.87 (5.58)

Note. ES = Empowerment Scale; WAI-C-S = Working Alliance Inventory-Client Version, Short Form; PEPPI = Perceived Efficacy in Patient-Physician Interaction Scale; PDMS sum = Participatory Decision-Making Scale sum (sum score); MHSIP sum = Mental Health Statistics Improvement Program Adult Consumer Survey (sum score).

Preliminary Analyses

Correlational Matrix

To explain the relationships between one or more predictor variables and one dependent variable, multiple regression analyses are frequently used. In order to be deemed valid, regression models rely on the assumptions of linearity, normality, and multicollinearity. To assess for the presence of multicollinearity of variables, correlation matrices were run between the independent and dependent variables in this study.

Tabachnick and Fidell (2001) suggested that correlation coefficients of .90 or higher are considered threats to multicollinearity. The data from correlations in this study revealed no issues of multicollinearity. The highest correlation coefficient between the WAI-C-S and PEPPI measures in this study was .558, considered a moderate correlation between

the constructs of working alliance and perceived efficacy in patient-physician interactions. The correlational matrix is shown in Table 3.

Table 3

Pearson Correlations Between Empowerment, WAI-C-S, PEPPI, PDMS sum, and MHSIP sum Scales

	ES	WAI-C-S	PEPPI	PDMS sum	MHSIP sum
ES	1				
WAI	.256	1			
PEPPI	.359	.558	1		
PDMS sum	.259	.389	.285	1	
MHSIP sum	-.268	-.442	-.340	-.258	1

Note. ES = Empowerment Scale; WAI-C-S = Working Alliance Inventory-Client Version; Short Form; PEPPI = Perceived Efficacy in Patient-Physician Interaction Scale; PDMS sum = Participatory Decision-Making Scale (sum score); MHSIP sum = Mental Health Statistical Improvement Program Adult Consumer Survey (sum score).

For Question 1, this study used the ES, the WAI-C-S, and the PEPPI, where the ES and WAI-C-S were the independent or predictor variables, and the PEPPI was the dependent variable. For Question 2, this study used the WAI-C-S, PEPPI, ES, and the PDMS, where the WAI-C-S, PEPPI, and ES were the predictor variables, and the PDMS was the dependent variable. Finally, for Question 3, this study used the WAI-C-S, ES, PEPPI, PDMS, and the MHSIP, where the WAI-C-S, ES, PEPPI, and PDMS were independent variables. The MHSIP was the dependent variable. In the current study, results demonstrated that these scales have significant reliability. Cronbach's alphas for the scales are reported in the previous chapter.

Testing Assumptions

Tests for normality of residuals and heteroscedasticity were conducted in order to determine the presence of homoscedasticity and normally distributed regression residuals. Assumptions were examined in two ways: (a) using a residual predicted scatterplot to examine for the presence of variance in the spread in residuals for different predicted values of the dependent variables and (b) using White's test (1980). White's (1980) test was used to examine the functional form of a regression model for potential problems of heteroscedasticity and misspecification. In this statistical test, the null hypothesis tests whether the regression model's specification of the first and second moment of the dependent variable is correct. Therefore, the null hypothesis then becomes a joint hypothesis and asserts that the residuals are independent of the explanatory variables and that the regression model has been correctly specified. In the present study, for all regressions, residuals were approximately normal, and White's test showed no significant heteroscedasticity. Furthermore, the results indicated that there were no substantial violations of regression assumptions.

Hypothesis 1: PEPPI Hypothesis

To test the hypothesis that higher scores on the ES and the WAI-C-S would be predictive of higher PEPPI scores, multiple hierarchical regression analyses, performed in Statistical Analysis Software (SAS), were conducted to determine the relationships.

In the first hierarchical regression, PEPPI was regressed on ES and WAI-C-S. The Intercept term was also included in this and all succeeding regressions used to test the hypotheses. In the first step of the hierarchical regression, PEPPI was regressed on

Empowerment. Data from 384 participants were used; 12 participants failed to complete the questionnaire thoroughly ($N = 384$). The model produced an R -square of 0.13, which was statistically significant, $F(2, 383) = 57.06, p < .0001$. Empowerment and the intercept accounted for 13% of the total variance in PEPPI scores. In the second step of the hierarchical regression, WAI-C-S was entered into the model. The model then produced an R -square of 0.36, which was also statistically significant, $F(2, 383) = 108.99, p < .0001$. This result indicated that the WAI-CS alone accounted for approximately 23% of the total variance in PEPPI. To further evaluate the predictive nature of the independent variables on the PEPPI, the variables were entered into the model in reverse order. PEPPI was first regressed on WAI-C-S. The model produced an R -square of 0.31, which was statistically significant, $F(1, 383) = 174.16, p < .0001$. The results indicated that WAI-C-S and the Intercept accounted for 31% of the total variance in PEPPI scores. ES was then added into the regression model in the second step of the hierarchical regression, and produced an R -square of 0.36, which was also statistically significant, $F(2, 383) = 108.99, p < .0001$. The results indicated that WAI and ES accounted for 36% of the total variance in PEPPI scores, though the ES appeared to account for only 5% of the total variance. Results from the PEPPI hierarchical regressions are shown in Table 4.

Table 4
Summary of PEPPI Hierarchical Regression Analyses

Variables	Regression 1 $\beta \pm SE$	Regression 2 $\beta \pm SE$	Regression 3 $\beta \pm SE$	Regression 4 $\beta \pm SE$
Intercept	0.51 \pm 0.43	-0.45 \pm 0.38	1.39 \pm 0.18 ***	-0.45 \pm 0.38
Empowerment	1.15 \pm 0.15 ***	0.75 \pm 0.14 ***	-----	0.75 \pm 0.14 ***
WAI-C-S	-----	0.39 \pm 0.03 ***	0.43 \pm 0.03 ***	0.39 \pm 0.03 ***
<i>F</i> -statistic	57.06 ***	108.99 ***	174.16 ***	108.99 ***
<i>R</i> -squared	0.13	0.36	0.31	0.36

Note. $N = 396$; $n = 384$; missing data from 21 participants. PEPPI = Perceived Efficacy in Patient-Physician Interaction Scale; SE = standard error; WAI-C-S = Working Alliance Inventory-Client Version, Short Form. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Hypothesis 2: PDMS Hypothesis

To test the hypothesis that higher scores on the WAI-C-S, ES, and PEPPI would be predictive of the higher PDMS scores, multiple hierarchical regression analyses were again conducted to evaluate the relationship between the predictor variables of WAI-C-S, ES, and PEPPI with the criterion variable PDMS. Two hierarchical regression models were run, also using SAS.

In the first hierarchical regression, PDMS was regressed on ES, PEPPI, and WAI-C-S. Data from 374 participants were used; data from 22 participants were missing. In the first step of the regression, PDMS was regressed on ES and PEPPI. The model produced an *R*-square of 0.11, which was statistically significant, $F(2, 374) = 21.92$, $p < .0001$. The results from the model indicated that ES and PEPPI accounted for 11% of the total variance in PDMS scores. Empowerment was positively correlated to PDMS ($\beta =$

16.4, $t = 3.34$, $p = .0009$). PEPPI was also positively correlated to PDMS ($\beta = 6.26$, $t = 4.08$, $p < .0001$). In the second step of the hierarchical regression, the predictor variable WAI-C-S was entered into the model. This model produced an R -square of 0.18, which was also statistically significant, $F(3, 374) = 25.96$, $p < .0001$. ES and WAI-C-S accounted for 18% of the total variance in PDMS scores. Empowerment remained positively correlated to PDMS scores ($\beta = 14.24$, $t = 3.01$, $p < .003$). WAI-C-S was also positively correlated to PDMS ($\beta = 7.23$, $t = 5.53$, $p < .0001$). PEPPI did not enter the model.

A second hierarchical regression was conducted, and the predictor variables were entered in reverse order to better understand the predictive nature of the variables on the criterion variable PDMS. Data from 374 participants were used to test the model; data from 22 participants were missing. In the first step of the second regression, PDMS was regressed on ES and WAI-C-S. The model produced an R -square of 0.173, which was statistically significant, $F(2, 374) = 38.77$, $p < .0001$. ES and WAI-C-S accounted for 17.3% of the total variance in PDMS. ES was positively correlated to PDMS ($\beta = 15.11$, $t = 3.31$, $p < .0001$). WAI-C-S was also positively correlated to PDMS ($\beta = 7.7$, $t = 6.94$, $p = .001$). In the second step of the hierarchical regression, PEPPI was entered into the model. This model produced an R -square of 0.174, which was statistically significant, $F(3, 374) = 25.96$, $p < .0001$. Results indicated that PEPPI contributed only approximately 0.1% to the total variance in PDMS scores. ES was positively correlated to PDMS ($\beta = 14.24$, $t = 3.01$, $p = .003$). WAI-C-S was also positively correlated to PDMS

($\beta = 7.23$, $t = 5.53$, $p < .0001$). PEPPI did not enter the model. Results from the PDMS hierarchical regressions are shown in Table 5.

Table 5
Summary of PDMS Hierarchical Regression Analyses

Variables	Regression 1 $\beta \pm SE$	Regression 2 $\beta \pm SE$	Regression 3 $\beta \pm SE$	Regression 4 $\beta \pm SE$
Intercept	-13.9 \pm 12.8	-28.13 \pm 12.63*	-28.71 \pm 12.6*	-28.13 \pm 12.63*
Empowerment	16.4 \pm 4.9 ***	14.24 \pm 4.74**	15.11 \pm 4.56**	14.24 \pm 4.74**
WAI-C-S	-----	7.23 \pm 1.31***	7.7 \pm 1.11 ***	7.23 \pm 1.31***
PEPPI	6.25 \pm 1.53***	1.19 \pm 1.73	-----	1.19 \pm 1.73
<i>F</i> -statistic	21.92 ***	25.96***	38.77***	25.96***
<i>R</i> -squared	0.11	0.18	0.173	0.174

Note. $N = 396$; $n = 375$; missing data from 21 participants. PDMS sum = Participatory Decision-Making Scale (sum score); SE = standard error; WAI-C-S = Working Alliance Inventory-Client Version, Short Form; PEPPI = Perceived Efficacy in Patient-Physician Interaction Scale;. * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Hypothesis 3: MHSIP Hypothesis

To test the hypothesis that higher WAI-C-S, ES, PEPPI, and PDMS would be predictive of greater overall satisfaction in treatment as measured by the MHSIP, multiple hierarchical regression analyses were conducted, performed in SAS, to determine the relationships between the criterion variable MHSIP and the following predictor variables: working alliance, empowerment, perceived self-efficacy in patient-physician interactions, and inclusion in treatment decision making. Two hierarchical regression analyses were conducted to determine the relative contribution of each of the predictor variables to the criterion variable.

In the first hierarchical regression, MHSIP was regressed on ES, WAI-C-S, PEPPI, and PDMS. Data from 374 participants were used to determine the contribution of the variables to the total variance in MHSIP; data from 21 participants were missing. In the first step of the regression, MHSIP was regressed on ES and PDMS. This model produced an *R*-square of 0.11, which was statistically significant, $F(2, 374) = 23.75, p < .0001$. The ES and PDMS accounted for 11% of the total variance in MHSIP. ES was negatively correlated to MHSIP ($\beta = -4.37, t = -4.39, p < .0001$). PDMS was also negatively correlated to MHSIP ($\beta = -.04, t = -4.01, p < .0001$). In the second step of the regression, MHSIP was regressed on ES, PDMS, and PEPPI. This model produced an *R*-square of 0.16, which was statistically significant, $F(3, 374) = 23.16, p < .0001$. ES, PDMS, and PEPPI accounted for approximately 16% of the total variance in MHSIP scores, and PEPPI contributed approximately 5% of the total variance of MHSIP. ES was negatively correlated to MHSIP ($\beta = -2.92, t = -2.85, p = .005$). PDMS was also negatively correlated to MHSIP ($\beta = -0.03, t = -3.10, p = .002$). PEPPI was also negatively correlated to MHSIP ($\beta = -1.42, t = -4.43, p < .0001$). In the third step of the regression, WAI-C-S was entered into the model. The model produced an *R*-square of 0.23, which was statistically significant, $F(4, 374) = 27.59, p < .0001$. ES and WAI-C-S accounted for 23% of the total variance in MHSIP scores, and WAI-C-S contributed approximately 7% of the total variance in MHSIP. ES was negatively correlated to MHSIP ($\beta = -2.71, t = -2.77, p = .006$). WAI-C-S was also negatively correlated to MHSIP ($\beta = -1.64, t = -5.88, p < .0001$). PDMS and PEPPI did not enter the model.

In order to better understand the contributions of the predictor variables to the criterion variable, the independent variables WAI-C-S and PEPPI were entered into the model in reverse order. The first step of the hierarchical regression was the same as in the first hierarchical regression of this model. In the second step of the regression, MHSIP was regressed on ES, PDMS, and WAI-C-S. This model produced an *R*-square of 0.23, which was statistically significant, $F(3, 374) = 36.38, p < .0001$. ES and WAI-C-S accounted for 23% of the total variance in MHSIP. ES was negatively related to MHSIP ($\beta = -2.99, t = -3.16, p = .002$). WAI-C-S was also negatively related to MHSIP ($\beta = -1.79, t = -7.40, p < .0001$). PDMS did not enter the model when WAI-C-S was entered. In the third step of the regression, MHSIP was regressed on ES, PDMS, WAI-C-S, and PEPPI. This model produced an *R*-square of 0.23, which was statistically significant, $F(4, 374) = 27.59, p < .0001$. ES and WAI-C-S accounted for 23% of the total variance in MHSIP scores. ES was negatively related to MHSIP ($\beta = -2.71, t = -2.77, p = .006$). WAI-C-S was also negatively related to MHSIP ($\beta = -1.64, t = -5.88, p < .0001$). PDMS and PEPPI did not enter the model. Results from the MHSIP hierarchical regressions 1 – 4 are shown in Table 6. Results from the MHSIP hierarchical regression 5 is shown in Table 7.

Table 6
Summary of MHSIP Hierarchical Analyses 1 – 4 (n = 374)

Variables	Regression 1 $\beta \pm SE$	Regression 2 $\beta \pm SE$	Regression 3 $\beta \pm SE$	Regression 4 $\beta \pm SE$
Intercept	32.47 \pm	33.17 \pm	36.64 \pm	36.82 \pm 2.60***
Empowerment	-4.37 \pm 0.99***	-2.92 \pm 1.02**	-2.71 \pm 0.98**	-2.99 \pm 0.95*
WAI-C-S	-----	-----	-1.64 \pm 0.28***	-1.79 \pm 0.24 ***
PEPPI	-----	-1.42 \pm 0.32 ***	-0.39 \pm 0.36	-----
PDMS sum	-0.04 \pm 0.01 ***	-0.03 \pm 0.01**	-0.02 \pm 0.01	-0.02 \pm 0.01
<i>F</i> -statistic	23.75***	23.16***	27.59***	36.38***
<i>R</i> -squared	0.11	0.16	0.23	0.230.11

Note. Missing data from 21 participants. MHSIP = Mental Health Statistics Improvement Program Adult Consumer Survey; SE = standard error; WAI-C-S = Working Alliance Inventory-Client Version, Short Form; PEPPI = Perceived Efficacy in Patient-Physician Interaction Scale; PDMS sum = Participatory Decision-Making Scale (sum score). * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 7
Summary of MHSIP, 5th Hierarchical Analysis (n = 374)

Variables	Regression 5 $\beta \pm SE$
Intercept	36.64 \pm 2.60***
Empowerment	-2.71 \pm 0.98**
WAI-C-S	-1.64 \pm 0.28***
PEPPI	-0.39 \pm 0.35
PDMS sum	-0.02 \pm 0.01
<i>F</i> -statistic	27.59***
<i>R</i> -squared	0.23

Note. Missing data from 21 participants. MHSIP = Mental Health Statistics Improvement Program Adult Consumer Survey; WAI-C-S = Working Alliance Inventory-Client Version, Short Form; PEPPI = Perceived Efficacy in Patient-Physician Interaction Scale; PDMS sum = Participatory Decision-Making Scale (sum score). * $p < .05$; ** $p < .01$; *** $p < .001$

Chapter 6: Discussion

The objective of the study was to uncover the relationships between consumer-reported levels of empowerment and working alliance with their reported perceived self-efficacy, inclusion in treatment decision making, and treatment outcomes for the purpose of providing guidance to provider training and program direction. This study also sought to further the current literature and understanding of the nature and value of assisting consumers of behavioral-health services to actively engage in their behavioral-health treatment. To study the relationships between the constructs, multiple hierarchical regressions were used in order to determine which of several independent variables were predictive of the dependent variable. The analyses were conducted in three stages, using two regression models for each hypothesis. In each stage, a part of the prediction model was tested using both predictor and criterion variables. In the first hypothesis, the relationship among overall global empowerment, therapeutic alliance, and treatment-specific efficacy was examined. The second hypothesis focused on the relative contribution of global empowerment, therapeutic alliance, and treatment-specific efficacy on the sense of inclusion in treatment decision making. In the final hypothesis, all of the previously mentioned process and internal variables were examined to determine their relationship with perceived mental-health treatment outcomes. The following discussion will review the results that were obtained in this study.

Study Findings

The study found that higher therapeutic alliance and perceived global empowerment were significant predictors of greater perceived self-efficacy in

interactions with physicians/clinicians. Additionally, it found that having a diagnosis of depression versus schizophrenia was a significant predictor of perceived treatment-specific self-efficacy. These results suggest when individuals with SMI, specifically those diagnosed with depression, are able to develop a greater sense of rapport within the therapeutic relationship and simultaneously embody a greater sense of overall empowerment, these individuals are more likely to feel more efficacious in asking treatment-related questions in their interactions with their physicians. This finding is important to the field because of the growing body of literature that indicates that knowledge of options and choices for treatment yields greater positive treatment outcomes (Reavley & Jorm, 2011).

One potential explanation for the greater self-efficacy in individuals with depression versus schizophrenia may be related to issues of ability to form helpful and well-bonded relationships with others. Barriers may, in fact, be related to the experience of specific symptoms related to a diagnosis of schizophrenia, including the positive and negative symptoms of the diagnosis. For example, an individual experiencing auditory hallucinations commenting in a derogatory manner about themselves and others in their social environment may then begin to experience a pervasive belief that others are not able to be trusted. As a result, they may believe that others want to bring them harm, shame, or other aversive emotions or experiences. When put in the context of attachment theory, which proposes a developmental model of psychological functioning and emotion regulation that develops from affectional bonds with close others in the environment of care, the experience of symptoms of psychosis becomes the negative life event (e.g.,

trauma) that prevents the individual from attaching securely to contemporaries as adults (Bowlby, 1980; Weinfield, Whaley, & Egeland, 2004). Analogue samples have demonstrated a correlation between self-reported attachment avoidance and paranoia (MacBeth, Schwannauer, & Gumley, 2008; Pickering, Simpson, & Bentall, 2008). Studies have also demonstrated a relationship between attachment anxiety, attachment avoidance, and hallucinations (MacBeth et al., 2008). Thus, if having a diagnosis of SMI and the psychological and experiential sequelae that develop from symptoms of psychosis, the likelihood of developing a lasting bond with anyone is very poor, until that individual is able to experience a relief in their symptoms and is able to rebuild relationships with trusted others.

Additionally, when considering the pervasive experience of stigma related to a diagnosis of schizophrenia, the fact that individuals with schizophrenia tend to experience higher levels of stigma may result in lower self-efficacy in relation to their ability to recover. In other words, the negative impact of stigma on sense of ability to enact change is greater in individuals who are diagnosed with schizophrenia than with depression. In a study by Kleim et al. (2008), individuals with schizophrenia self-reported experiences of stigma as the primary barrier to recovery in schizophrenia, “over and above the amount of variance in recovery explained by positive and negative symptoms, depression, insight into illness, age, and gender” (p. 486). These findings demonstrated the negative influence of stigma on perception of self-efficacy in individuals diagnosed with mental illness. Further research is needed to determine why there is a differential relationship by diagnosis with treatment-specific self-efficacy. The results from the current study

highlight that clinicians should be aware that their patients may have different levels of self-efficacy given their diagnosis and other possible predictors not tested in the current model. Self-efficacy ought to be addressed and explored in the context of the therapeutic relationship to ensure that each individual is able to develop treatment specific self-efficacy.

The second set of analyses found that greater reported perceived therapeutic alliance and global empowerment were significant predictors of individuals' perceptions of inclusion in treatment decision making, as was hypothesized; however, self-efficacy was not predictive in this model. These results indicate that individuals who tend to feel more empowered in their lives may also already be predisposed to the ability to develop working relationships with their providers, as well as advocate for themselves in the patient-physician relationship. If empowerment is conceptualized as a trait characteristic, then individuals who embody higher levels of empowerment may be more likely to actively engage with their physicians. Active engagement in the relationship, in turn, may result in their physicians using a more inclusive approach in order to maintain the rapport with the more empowered patient.

Trait characteristics can be further understood by considering locus of control theory, expanded upon by Sue's (1978) discussion that the ability to enact change in one's life circumstances is related to the interaction between internal experiences, such as beliefs in one's ability to enact change, and the greater social world (see also Cattaneo & Chapman, 2010). According to Sue & Sue (2007), perceived locus of control is powerfully impacted upon by experienced social forces in a person's social world and by

the individual's ability to both obtain and exercise power (as cited in Cattaneo & Chapman, 2010). Social forces may include the presence of powerful others and regulatory agencies or institutions that regulate behavior and can be seen as the reason that groups with less social power tend to report experiencing a more external locus of control (Sue & Sue, 2007). Thus, empowerment also can be viewed as an indication of positive adaptation to treatment and resilience among individuals with schizophrenia when interacting with their physicians. Further research should be conducted to determine other factors that correlate with greater levels of empowerment in individuals diagnosed with SMI.

The positive correlation found in this study between working alliance and participatory decision making is not surprising given that shared decision making communicates interest in the patient's needs and wants and is less directive in nature. Showing interest and concern and having good listening skills are all variables related to developing a positive working alliance. However, further research should be conducted to better understand the most effective ways of increasing a physician's ability to develop the therapeutic relationship with consumers with SMI given the observed correlation among empowerment, alliance, and the physician's use of a shared decision-making style.

Of note, PEPPi did not reach statistical significance in both of the regression models that were conducted on the PDMS hypothesis, indicating that perceived self-efficacy in interactions with a treating physician is not a significant predictor of perception of inclusion in treatment decision making. This finding contradicts previous

research findings and is interesting because the correlational matrix demonstrated only a moderate correlation between the two variables. PEPPI's lack of significance could have been obtained for several reasons. After the other independent variables were included in the regression model, treatment-specific efficacy most likely no longer had a significant relationship with the dependent variable PDMS. Therapeutic relationship and perceived efficacy in interactions with physicians are conceptually related. Perhaps the items on the WAI-C-S and the PEPPI were too similar in nature. In other words, any variance in PDMS that could have been measured by PEPPI is being explained or accounted for by the WAI-C-S because of the moderate correlation found in the correlation matrix between PEPPI and WAI. Therefore, the moderate inter-correlation between PEPPI and WAI-C-S is the most plausible explanation for the nonfindings of the PEPPI in the regression model.

A second reason that PEPPI may not have been significant may be because PEPPI is not an accurate representation of an individual's ability to interact with his or her mental-health clinician. When considering that beliefs of self-efficacy affect how individuals think, feel, behave, and motivate themselves, this task-/context-specific variable may not be significant. As has been suggested, having high self-efficacy does not compel an individual to enact change (Smits & Bosscher, 1998). In other words, one can experience a high sense of control in one's life but not always feel able to speak up about treatment needs when interacting with treatment providers in everyday situations. However, if individuals have a strong working alliance with their physicians/clinicians, they more likely will feel they are able to speak up for their needs and perceive that their

physicians are more inclusive in the treatment decision making. Additionally, one can have high self-efficacy, though not perceive that the provider engages in a shared decision-making style, making self-efficacy it less likely to be perceived as related to PDMS. In other words, the treating clinician may not have been using a PDM style, and this lack of inclusion is being reflected in the results.

Results from the final hypothesis regarding treatment outcomes indicated that satisfaction with treatment outcomes is strongly correlated to individuals' perceptions of the working alliance, sense of overall empowerment, and perception of inclusion in treatment decision making with their treating clinicians. The correlation found between the therapeutic alliance and treatment outcomes in this hypothesis is not surprising when considering the constructs measured in the working alliance. Recall that the measure examines the degree to which the client and therapist bond, the degree to which the client and therapist collaborate on specific therapeutic activities or tasks, and the degree to which the client and therapist agree on the global objectives or goals of the therapy (Horvath & Greenberg, 1989). With the focus of the measure on the bond, the goals, and the tasks in the therapeutic interactions, logic permits that individuals who feel closer to their therapist would also feel that their therapists include them in treatment decisions. Furthermore, these individuals likely are going to report greater outcomes in their treatment. Research studies have demonstrated good evidence to support assertions that the quality of the therapeutic alliance is predictive of the therapeutic outcome (Horvath & Greenberg, 1989; Marmarosh et al., 2009).

Satisfaction was also diagnosis dependent, with individuals diagnosed with major depression reporting satisfaction with treatment greater than that reported by individuals diagnosed with schizophrenia. Additionally, this analysis found that satisfaction with treatment outcomes was not significantly related to the overall perception of self-efficacy in patient-physician interactions. The latter results, similar to those of the preceding hypothesis, also contradict previous research findings that treatment-specific self-efficacy plays an important predictive role in an individual's overall treatment gains and recovery (Maly et al., 1989). These nonfindings in PEPPI significance are likely related to the previously listed reasons. Additionally, the result may be influenced by the fact that items in the PEPPI are related to a medical setting. According to the developers of the scale, PEPPI is designed to determine the amount of perceived self-efficacy when interacting with physicians during medical appointments (Maly et al., 1998). Possibly, the PEPPI is not an appropriate measure to use outside of the medical setting, and attempts to use PEPPI to demonstrate predictive value in mental-health treatment outcomes is an inappropriate use of the scale. Further research should be conducted to determine the validity of using the PEPPI in mental-health research. In addition, future research should also focus on developing a scale that is more specifically related to treatment-specific self-efficacy in the mental-health field.

Results also indicated that individuals diagnosed with depression rated their satisfaction with their treatment outcomes greater as compared to that rated by individuals diagnosed with a schizophrenia-spectrum disorder. These results are not easily interpretable. First, the results may have been obtained because individuals with

depression might have been able to achieve greater duration of relief from symptoms or a reduction in other psychosocial stressors associated with the diagnosis. The literature indicates that 60-80% of individuals diagnosed with depression are able to find significant recovery from their symptoms when remaining adherent to treatment regimens, including medications and psychotherapy (Smits & Bosscher, 1998). However, the literature also indicates that individuals diagnosed with depression experience a high rate of relapse, noting that 60 to 80% of individuals who recover do experience a relapse within 5 to 10 years (Lee & Murray, 1988; Keller, Lavori, Mueller, Endicott, et al., 1992; Kiloh, Andrews, & Neilson, 1988; Surtees & Barkley, 1994). In this study, participants with schizophrenia may not have experienced a decrease in symptoms. Additionally, study participants may have had a generally higher subjective acuity of symptoms and/or a possible increase in their experience of symptoms at the time of data collection. As was reviewed in a prior section, lower acuity in symptom presentation, as measured by the Positive and Negative Symptom Scale (PANSS), has been associated with stronger therapeutic alliance and greater treatment outcomes (Frank & Gunderson, 1987; Kay, Fiszbein, & Opler, 1987). However, the association should be considered with caution, as the findings on the relationship between symptom severity and treatment outcomes are somewhat mixed. In addition, treatment outcomes may be less favorably perceived by individuals with schizophrenia because of similar reasons related to stigma, as previously noted. Future research should focus on the impact that symptom severity and ability or skill in forming adult attachments has on treatment outcomes in individuals with schizophrenia spectrum and major depressive disorders. Perhaps, as individuals

experience a remission in their symptoms over time, their perceived satisfaction in treatment increases. Likewise, future research on this focus may demonstrate that as an individual gains the skills needed to develop relationships, his or her ability to engage in the treatment improves, thus leading to better treatment outcomes.

Potential Limitations

Some limitations exist in this study. First, the relationships that were found to exist among the variables cannot be considered to be causal. The present study is based on a cross-sectional design and prevents the drawing of causal relationships. Concerning the PDMS and MHSIP hypotheses, attention must be drawn to the fact that this study did not differentiate between respondents referring to either clinicians or physicians when completing the measures. Instead, eligible participants were instructed to answer items on the PDMS and MHSIP scales using their overall impression of experiences with either their therapists or their psychiatrists. Therefore, the information that was obtained in the analyses cannot and should not be considered representational of either category of mental-health professional, but instead of the combination of the two mental-health professionals. Therefore, the results, while significant, cannot be easily generalized to one specific population of treatment providers, because nonmedically trained clinicians may embody characteristics different from those of their medically-trained counterparts related to their training (e.g., patient-centered versus the medical model/physician-directed approaches to treatment). Furthermore, participant age was another variable that was not controlled for in this study. Considering that one study found that age in individuals with SMI is correlated to positive treatment outcomes (see Solomon et al.,

1995), the lack of inclusion of this variable in the model for the third hypothesis may have left the model underspecified.

Finally, the self-report nature of the data that were used has some limitations. Confidence in self-report data is limited by a variety of possible biases, and though attempts were made to control for the social desirability bias in the procedures of this study, participants may have overreported or underreported the presence or lack of items on each of the measures used in the study data. Furthermore, participants' self-reports may have been subject to recall bias as they attempted to respond to questions about current treatment. Regardless of the noted limitations to this study, the results suggest significant correlations between sense of overall empowerment, working alliance, perceived treatment-specific self-efficacy, and inclusion in treatment decision making in perceived behavioral health treatment outcomes.

Future Directions

Training for present and future clinicians has primarily focused on the theoretical aspects and approaches to treatment for individuals not diagnosed with SMI, though training is slowly changing. The guidelines for transformation in the behavioral-health system have been integral in changing the landscape of treatment for individuals with SMI. Several qualitative studies have pointed out that individuals with SMI need supportive, hopeful, respectful provider relationships and must feel that they are being heard. Research demonstrates that attempting to provide treatment interventions prior to the development of a strong therapeutic relationship is likely to yield frustration on the part of both the patient and the clinician, regardless of the presence or absence of SMI.

The results from this study suggest that future research should focus on development of training for clinicians who provide treatment to individuals with SMI. Specifically, the training should include the development of intervention skills necessary to build rapport and a strong therapeutic alliance with these individuals. Interventions should also focus on increasing individuals' sense of overall empowerment, as the results from this study suggest that empowerment is a necessary part of recovery from mental illness.

If global empowerment adds to the sense of inclusion in treatment decision-making and satisfaction in treatment outcomes, then treatment providers have a responsibility to seek to increase empowerment in individuals with SMI. One helpful way to empower these individuals is summed up by the concept of mental health-literacy, which includes the ability to recognize a specific mental illness and understand the available treatment for a diagnosed disorder (Reavley & Jorm, 2011). Researchers in mental-health literacy suggest that lack of information about one's specific disorder (e.g., lack of knowledge, risk factors, causes, available treatment options, etc.) significantly reduces help-seeking behaviors (Jorm, Korten, Jacomb, Rodgers, & Pollitt, 1997; Reavley & Jorm, 2011). In general, before a problem can be addressed, a person must first recognize the presence of the problem before seeking help. Recognition requires, at a minimum, a basic foundation of mental-health literacy for individuals seeking to recover from their mental illness. Additionally, assisting individuals with identifying and developing personally meaningful goals can increase that individual's sense of being personally invested in his or her treatment.

Other interventions that can increase empowerment include specific treatment protocols for clinicians/physicians providing the treatment. Several theoretical models currently support and enhance understanding of the importance of relationship building in order to assist individuals to prepare to make necessary changes. These include third-wave theoretical models of treatment, such as Acceptance and Commitment Therapy (ACT) and Dialectical Behavior Therapy (DBT), which focus on increasing an individual's cognitive flexibility, gaining awareness of his or her expressed values, and developing behavioral interventions that will allow movement in the direction of his or her expressed goals (see Hayes, 2004; Linehan, 1993). Additionally, significant research has been conducted on the Transtheoretical Model of Change, and the Stages of Change Theory, two important avenues toward meeting individuals where they are in their readiness for change (Prochaska & DiClemente, 1984; Rollnick & Miller, 1995). Yet another model for treatment with a side effect of empowerment is assisting individuals with clarifying their values and then working in collaboration with them to connect them to community groups that are in line with their expressed values.

Training should also focus on the important role that empowerment plays in individuals' abilities to have positive gains in their treatment. Programs should focus on implementing practical training on improving clinicians' ability to empower the consumers for whom they are providing treatment. For example, one leading researcher on empowerment and SMI suggests, some strategies that serve to enhance the treatment partnerships (Corrigan et al., 2010). These include (a) using language that endorses recovery rather than promoting the idea of poor prognoses, (b) developing treatment

plans that utilize a collaborative and shared decision making approach, rather than unilateral decision making that is perceived as coercive, and (c) providing effective treatment services in the person's community rather than at distant establishments (Corrigan et al., 2010). These strategies are simple at face value. However, they remain central to the necessary transformation of the behavioral healthcare system. Making changes in this manner requires each practitioner to fully understand and embrace the idea that all individuals can recover.

Interestingly, treatment approaches that focus only on the person and the treatment relationship are not sufficient (Corrigan et al., 2010). Stigma and discrimination remain significant barriers to the kind of community opportunities that are necessary to help people attain life goals. Therefore, communities that substitute stigmatizing attitudes and discriminatory behaviors with realistic views of psychiatric disability are more likely to provide the kind of reasonable accommodations that some people need for work and independent living opportunities. This information can guide treatment providers in making purposeful attempts to advocate for inclusion and integration of individuals with SMI in the greater community, as community acceptance and integration play a vital part in recovery. In addition, further research should be conducted to determine the predictors of empowerment, as this construct, along with the therapeutic alliance, demonstrated the most consistent significant relationship with all of the criterion variables, specifically the perceived treatment outcomes.

The findings of the relationship between the empowerment measure and sense of self-efficacy in patient-physician interactions are important to the field of psychology

because they suggest people may feel empowered in their overall life, but not necessarily have the same sense of power and mastery in a very specific context when they are expected to interact with their physicians. A lack of treatment-specific self-efficacy may be related to the fact that there is already a power differential that already exists between the physician and the consumer. Furthermore, individuals who are already globally empowered may also lack the specific skills needed to ask their physicians questions. Self-efficacy requires knowledge and the skills to act on this knowledge, and treatment providers need to improve their efforts in providing consumers with information about medications, empirically based treatment options, and diagnosis, and, in general, in demystifying the entire process of treatment. However, one should note that had WAI-C-S not been measured in this study, self-efficacy may have been statistically significant in the results. The constructs measured by the WAI-C-S and PEPPI most likely are similar enough in nature for this overlap in constructs to result in the PEPPI losing statistical significance. Future studies should be conducted in order to determine how to best increase a person's sense of self-efficacy in interactions with his or her physicians/treating clinicians. Specifically, one design of a future study could include individuals who identify having greater knowledge about mental illness, diagnosis, medications, assertiveness training, etc. Results from a study design such as this could determine if these individuals would then report greater confidence in their abilities to interact with their physicians.

Part of the training of new clinicians must include instruction on developing a strong therapeutic alliance while maintaining other core concepts related to the provision

of mental-health treatment, such as the theoretical or procedural aspects of training that are currently the focus of training programs. To date, a number of professional associations have sought to educate those in the mental-health delivery system about adopting a more recovery-oriented approach to the treatment of individuals with SMI. All have been formed/are forming as a direct result of the New Freedom Commission's (2003a/b) mandated transformation of the mental health treatment delivery system. For example, SAMHSA, a division of the United States Department of Health and Human Services, has developed the Recovery To Practice Initiative, which has awarded grants to the American Psychiatric Association, the American Psychological Association, the National Association of Peer Specialists, the Council on Social Work Education, and the American Psychiatric Nurses Association to develop, pilot-test, and distribute training materials for practitioners about recovery and SMI (2009). These educational and training materials are currently being developed by each professional group and are expected to be ready for dissemination within the next several years. Other initiatives have been in place for some time and have been integral in the forward movement of the recovery-oriented approach (see Tondora & Davidson, 2006).

Results from this study also indicated that the tendency for physicians to engage in a PDM style was significantly correlated with the subjects' self-reported experiences of the working alliance and their own sense of empowerment, as well as with greater reported treatment outcomes. The results suggest that clinicians should receive further training on better understanding the needs of their patients, particularly the ability to accurately reflect and act on their patients' reported needs, in order to develop greater

inclusion in the treatment process. A discussion of shared decision making regarding treatment should also consider the limitations of this approach. For example, patients who present as a danger to themselves and others as the result of an impaired mental status, thus impairing their ability to care for themselves, do benefit from the temporary partial removal of right to autonomy, and this decision may indeed be the responsibility of the clinician under current laws (see O'Connell, 2011). In other words, patients who report suicidal or homicidal ideation with a plan and intent, patients who are experiencing significant symptom-related difficulty managing impulses, or patients who are not able to care for themselves because of the presence of acute symptomatology are less likely to be able to make treatment decisions that will be beneficial. Physicians and clinicians should be trained in screening for the presence of problematic symptom presentations and in assessing the level of mental-health literacy individuals have about what is needed in order to progress in their recovery. Additionally, physicians and clinicians could benefit from further training in seeking consultation from the appropriate mental-health professionals to counter this potential barrier to inclusion in treatment decision making.

The benefit to inclusion in treatment decision making, as already discussed, is greater perceived treatment outcomes. Future research needs to be conducted into the role of treatment decision making on treatment gains, adherence, and engagement, and on other indicators of subjective and objective functioning. Being included in the decision-making process regarding one's treatment is also indicative of a more person-centered approach to treatment that hopefully will result in higher treatment participation and objective treatment outcome indicators.

Conclusion

Overall sense of empowerment, the development of a strong working alliance, perceived self-efficacy in interactions with treating clinicians, and perception of inclusion in treatment decision making are all constructs that are considered essential to the provision of effective treatment of individuals diagnosed with mental illness. This study sought to determine the relationship among these variables and their abilities to predict greater satisfaction with treatment outcomes for the purpose of furthering the field's understanding of how to best shape the provision of services to individuals with SMI. Nearly all of the constructs demonstrated significance, with the working alliance, empowerment, and the perception of inclusion in treatment decision making predicting overall satisfaction with treatment outcomes. Based on this study, future research should focus on the development and evaluation of training programs for the clinicians who will be providing mental-health treatment to these individuals. To help shape these programs, the behavioral-health services delivery system would benefit from new training modules for clinicians that will ultimately serve to enhance overall recovery for individuals with SMI as they build upon their satisfaction with treatment outcomes.

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