The Impact of the Therapeutic Alliance, Therapist Empathy and Perceived Coercion on Engagement in Outpatient Therapy for Individuals with Serious Mental Health Conditions

Jason R. Mallonee
University of Pennsylvania - School of Social Policy and Practice, mallonee@upenn.edu

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Abstract
Purpose: Individuals with serious mental health conditions disengage from treatment at a higher rate than other populations. Factors associated with treatment engagement for this population in other contexts, or in outpatient therapy for other populations, include the therapeutic alliance, therapist empathy, and perceived coercion. This study tested the hypothesis that a stronger therapeutic alliance, a greater degree of therapist empathy, and a lower degree of coercion will be associated with a higher degree of engagement in outpatient therapy for individuals with SMHC when controlling for other factors found to be associated with engagement. Methods: 131 participants completed an anonymous web-based survey measuring the study's constructs with established scales. The relationship between variables was tested using hierarchical multiple regression analysis. Results: After separating the therapeutic alliance and therapist empathy in the multivariate analysis due to multicollinearity, both the therapeutic alliance and therapist empathy were found to be significant predictors of change in client engagement. Perceived coercion was not found to be a significant predictor of change in client engagement. It was also found that participant treatment utilization at the time of survey completion was significantly less intensive than their historical treatment utilization, and that participants reflect a range of symptoms and levels of impairment. Conclusions and Implications: The therapeutic alliance and the quality of therapist-client interactions are the most important factors in maintaining engagement in outpatient therapy for individuals with SMHC. Individuals with SMHC are managing their conditions with less intensive and less restrictive treatments, despite a varying range of symptom severity and functional impairment. Additional research is needed to better understand engagement in therapy for individuals with SMHC and to develop more sensitive measures for evaluating these constructs.

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THE IMPACT OF THE THERAPEUTIC ALLIANCE, THERAPIST EMPATHY AND PERCEIVED COERCION ON ENGAGEMENT IN OUTPATIENT THERAPY FOR INDIVIDUALS WITH SERIOUS MENTAL HEALTH CONDITIONS

Jason Mallonee, MSW, LCSW

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Phyllis Solomon, Ph.D.
Dissertation Chair

Sara Bachman, Ph.D.
Dean, School of Social Policy and Practice

Dissertation Committee
Ryan Petros, Ph.D.
I dedicate this work to my mother, Eileen, who is the hardest working person I know and who didn’t have the opportunities I have had to pursue a higher education. She also taught me that knowledge isn’t always found in a textbook or generated in a classroom, a lesson I will be forever grateful for.

This work is also dedicated to everyone who experiences a serious mental health condition. I am forever inspired by your strength, courage, and perseverance in recovery.
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ABSTRACT

THE IMPACT OF THE THERAPEUTIC ALLIANCE, THERAPIST EMPATHY AND PERCEIVED COERCION ON ENGAGEMENT IN OUTPATIENT THERAPY FOR INDIVIDUALS WITH SERIOUS MENTAL HEALTH CONDITIONS

Jason Mallonee, MSW, LCSW
Phyllis Solomon, Ph.D.

Purpose: Individuals with serious mental health conditions disengage from treatment at a higher rate than other populations. Factors associated with treatment engagement for this population in other contexts, or in outpatient therapy for other populations, include the therapeutic alliance, therapist empathy, and perceived coercion. This study tested the hypothesis that a stronger therapeutic alliance, a greater degree of therapist empathy, and a lower degree of coercion will be associated with a higher degree of engagement in outpatient therapy for individuals with SMHC when controlling for other factors found to be associated with engagement. Methods: 131 participants completed an anonymous web-based survey measuring the study’s constructs with established scales. The relationship between variables was tested using hierarchical multiple regression analysis. Results: After separating the therapeutic alliance and therapist empathy in the multivariate analysis due to multicollinearity, both the therapeutic alliance and therapist empathy were found to be significant predictors of change in client engagement. Perceived coercion was not found to be a significant predictor of change in client engagement. It was also found that participant treatment utilization at the time of survey...
completion was significantly less intensive than their historical treatment utilization, and that participants reflect a range of symptoms and levels of impairment. **Conclusions and Implications:** The therapeutic alliance and the quality of therapist-client interactions are the most important factors in maintaining engagement in outpatient therapy for individuals with SMHC. Individuals with SMHC are managing their conditions with less intensive and less restrictive treatments, despite a varying range of symptom severity and functional impairment. Additional research is needed to better understand engagement in therapy for individuals with SMHC and to develop more sensitive measures for evaluating these constructs.
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CHAPTER 1: BACKGROUND AND SIGNIFICANCE

The recovery movement in mental health is a client-driven initiative to promote treatment that instills hope, encourages healing, empowers the individual, and facilitates the development of meaningful connections with others (O’Connor & Delaney, 2007). Recovery-oriented practice aims to increase engagement in treatment through fostering a collaborative relationship between the therapist and client (Atterbury, 2014) that conveys genuine acceptance and value for the individual’s experience (Davidson et al., 2007) and that promotes personal autonomy while avoiding coercion (Fardella, 2008). Within the context of the recovery movement, individuals with serious mental health conditions are increasingly viewed as capable of achieving a higher degree of stability, recovery, and therapeutic growth (Davidson, 2016). Prior to this shift in thinking, treatments were more paternalistic, focused on meeting basic needs and improving compliance with treatment plans. Individuals with serious mental health conditions are progressively seeking less restrictive outpatient treatment options to enhance their quality of life, build insight into their illness, and pursue recovery on their terms.

The values espoused by the recovery movement – empowering the individual, respecting personal choice, avoiding coercion, and displaying genuine empathy – have been demonstrated to improve the experiences of individuals with serious mental health conditions in mental health treatment (Malinovsky et al., 2013). Improving clinical care and engagement for this population is a recognized challenge in mental health care (Tetley, Jinks, Huband, & Howells, 2011). While research on factors associated with treatment engagement for individuals with serious mental health conditions is extensive
(Doyle et al., 2014; Kreyenbuhl, Nossel, & Dixon, 2009; Stanhope, Marcus, & Solomon, 2009), less is known about factors that support meaningful engagement in outpatient therapy for this population.

Engagement in mental health treatment is a complex concept that encompasses a variety of factors, including attending treatment sessions and active involvement in the therapeutic process (Tetley et al., 2011). Low treatment engagement results in multiple negative consequences, including less symptom relief (Barrett, Chua, Crits-Christoph, Gibbons, & Thompson, 2008) and higher rates of psychiatric hospitalization, violence, and suicide (Kreyenbuhl et al., 2009), all resulting in a negative impact on both the client and the community. Higher dropout rates also lead to a decrease in cost effectiveness and an overutilization of inpatient hospitalization, a significantly more expensive and restrictive treatment option (Weiden & Olfson, 1995; Wierzbicki & Pekarik, 1993). Given the severity of consequences associated with premature termination from treatment and the trend toward less-restrictive outpatient services to treat serious mental health conditions, it is essential that the mental health treatment community identify factors associated with increased engagement in therapy for this population and incorporate these elements into therapeutic work.

There are various factors connected to overall treatment engagement for individuals with serious mental health conditions and the therapeutic alliance is prominent among them. The strength of the therapeutic alliance has been shown to increase engagement and result in better treatment outcomes for individuals with serious mental health conditions in the context of intensive community-based multidisciplinary
treatment (Fakhoury, White, & Priebe, 2007; McCabe et al., 2012), when working with care coordinators during acute psychosis (Farrelly et al., 2014), receiving more skill-based psychiatric rehabilitation (Gehrs & Goering, 1994), and being treated in inpatient psychiatric hospitalization (Frank & Gunderson, 1990; Priebe, Richardson, Cooney, Adedeji, & McCabe, 2011). There is an absence of research on the impact of the therapeutic alliance on engagement in outpatient therapy for individuals with serious mental health conditions, particularly in the context of the recovery movement where the role of therapy has expanded from basic skill building and treatment compliance to include more in-depth therapeutic work.

Therapist empathy has also been found to have a positive impact on treatment engagement. Therapists who are responsive to the client by making genuine attempts to understand and affirm what the client is going through often benefit from a greater degree of engagement in treatment (Elkin et al., 2014). Research on the impact of therapist empathy is limited, specifically for individuals with serious mental health conditions treated through outpatient therapy.

Another factor considered to impact treatment engagement is the degree of coercion a client experiences. Coercion is often a deterrent from seeking services (Swartz, Swanson, & Hannon, 2003) and negatively impacts a client’s view of mental health treatment (Stanhope et al., 2009). Research on coercion is limited, most often focusing on pressure or mandates to seek treatment rather than coercive undertones in the context of outpatient therapy.
This exploratory study examined client perceptions of the therapeutic alliance, therapist empathy, and perceived coercion as potential predictors of engagement in outpatient therapy for individuals with serious mental health conditions, an angle not yet explored in existing research. This study also accounted for the influence of other factors found to be associated with treatment engagement for individuals with serious mental health conditions, but less understood in terms of their impact on engagement in outpatient therapy. This research set out to fill the identified gaps by answering: To what extent do client perceptions of the therapeutic alliance, therapist empathy, and perceived coercion explain the degree of engagement in outpatient therapy for individuals with serious mental health conditions, while controlling for symptom severity, co-occurring substance use, education level, age, and the length of time working with a therapist. What follows is a review of the conceptual and empirical literature pertaining to the variables examined in this study.

**Serious Mental Health Conditions**

Serious mental health conditions are frequently referred to as *severe mental illness*, *serious mental illness*, or *serious and persistent mental illness*. In line with a recovery-oriented perspective that aims to avoid deficit-based terminology, this research study describes this classification of diagnoses and level of impairment as *serious mental health conditions*. Throughout this literature review and study, this phrase is used in place of the previous terminology reflected in existing literature; however, it reflects the same conceptualization in terms of typical diagnoses and symptom severity.
Serious mental health conditions have been defined in a variety of ways based on diagnostic criteria, disability, and illness duration (Schinnar, Rothbard, Kanter, & Jung, 1990). The National Institute of Mental Health (NIMH) defines a serious mental health condition as “a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities” (NIMH, 2017). Schinnar et al. (1990) identify specific types of functional impairment associated with serious mental health conditions to include impaired social relationships, decreased ability to complete activities of daily living and meet basic needs, and impaired ability to work. For the purpose of this study and aligned with these definitions, serious mental health conditions were conceptualized as having received a mental health diagnosis of schizophrenia, schizoaffective disorder, delusional disorder, schizophreniform disorder, bipolar I disorder, bipolar II disorder, major depressive disorder, posttraumatic stress disorder, and/or borderline personality disorder that results in a significant impairment in an individual’s functioning in one or more major life activities, including social and family relationships, the ability to maintain gainful employment, completing activities of daily living, and meeting basic needs.

Within the classification of serious mental health conditions, symptom severity spans a wide range within and between diagnostic categories – from mild, but significantly impairing, to severe and disabling. The literature reviewed suggests that diagnosis and symptom severity are associated with varying rates of engagement in treatment (Doyle et al., 2014; Swift & Greenburg, 2012). Existing research, however, does not account for the unique experiences of individuals with serious mental health
conditions in outpatient therapy. This study aims to fill this gap by focusing on factors that contribute to engagement in this specific context.

**Client Engagement**

There are varying conceptualizations of client engagement. Duchan (2009) describes engagement as feeling drawn into and connecting with a person and activity. Tetley et al. (2011) found client engagement to encompass many concepts, including session attendance, completing treatment within an expected time frame, completing between-session tasks, implementing skills learned in session, and actively contributing to the therapy session. O’Brien and colleagues (2009) expand upon these concepts to include accepting the need for help, forming a strong therapeutic alliance, and remaining satisfied with the therapeutic work throughout treatment. Holdsworth, Bowen, Brown, and Howat (2014) view treatment engagement as the behaviors and efforts to create positive change in one’s life both within and beyond the therapeutic setting. For the purpose of this study, engagement was conceptualized as the client’s degree of involvement in therapy to include attending appointments, experiencing open communication with the therapist, gleaning a perceived benefit from treatment, and feeling actively involved in the therapeutic process.

Across conceptualizations, it is generally agreed upon that client engagement is necessary for mental health treatment to be effective (Doyle et al., 2014) and to achieve positive treatment outcomes (Holdsworth et al., 2014). Developing a better understanding of the factors that contribute to engagement in outpatient therapy for individuals with serious mental health conditions will increase the profession’s ability to
engage this population in treatment and achieve the positive treatment outcomes often associated with higher levels of engagement (Kreyenbuhl et al., 2009).

The results of research on engagement in mental health treatment vary across study and population. In a meta-analysis of 669 studies of psychotherapy dropout rates encompassing a variety of diagnoses and accounting for the treatment experience of 83,834 clients, Swift and Greenberg (2012) found a weighted dropout rate of 19.7 percent across diagnoses. These authors found dropout rates to be correlated with diagnosis, age, and education level (Swift & Greenberg, 2012). Similarly, McMurran and colleagues (2009) found through a systematic review of research on engagement in therapy for individuals with personality disorders that older age and a higher level of education were associated with increased engagement.

In a review of ten research studies focused on treatment engagement for individuals experiencing first episode psychosis without specifying treatment context or modality, Doyle et al. (2014) found that the proportion of clients who disengage from treatment prior to achieving treatment goals to fluctuate from 20.5 percent to 40 percent. Factors negatively impacting engagement include symptom severity and co-occurring substance use disorders (Doyle et al., 2014). In a similar review of 14 research studies exploring engagement for individuals with disorders that include psychotic symptoms and again not accounting for treatment context or modality, O’Brien et al. (2009) found that approximately 30 percent of individuals who have initially engaged in any type of mental health treatment prematurely disengage from services. Factors associated with engagement include age, co-occurring substance use, and pressure or coercion (O’Brien
et al., 2009). Gillespie and colleagues (2004) similarly found co-occurring substance use to be related to client engagement in the context of assertive community treatment. In a review of literature on engagement for individuals with schizophrenia without specifying treatment context, Kreyenbuhl et al. (2009) found age, gender and ethnicity to be associated with an individual’s engagement in mental health treatment.

In a comprehensive review of 27 studies on adherence to treatment for individuals with bipolar disorder, Leclerc, Mansur, and Brietzke (2013) identified various factors associated with improved adherence. They determined that the patient-related characteristics of younger age, a lower level of education, male gender, a lower level of illness awareness, and motivation by external factors were associated with lower levels of adherence to psychosocial treatments. While treatment adherence is not the only component of client engagement, a higher level of engagement includes following through with treatment plan goals.

The factors most frequently identified as associated with overall treatment engagement – symptom severity, co-occurring substance use, education level, and age – were controlled for in this study in order to better isolate the impact of the therapeutic alliance, therapist empathy, and perceived coercion on engagement in outpatient therapy.

There is an abundance of research on client engagement in outpatient therapy. Holdsworth et al. (2014) reviewed 79 studies on engagement encompassing both client and therapist characteristics. They found that clients who have the capacity to address their problems are more likely to engage in treatment, as well as clients who are working with therapists who espouse specific qualities, including strong interpersonal skills and
approaching clients from a strengths-based perspective (Holdsworth et al., 2014). In an analysis of 103 audiotaped therapy sessions, Moyers, Miller, and Hendrickson (2005) found that a therapist’s interpersonal skills increased client involvement in therapy. Boardman and colleagues (2006) reviewed 46 audiotaped counseling sessions, finding that therapist empathy and a collaborative approach to treatment were associated with increased engagement and a stronger therapeutic alliance. Further, the quality of the therapeutic alliance has been demonstrated to improve treatment engagement and is viewed as more important than the specific treatment modality (Holdsworth et al., 2014). Research on factors that contribute to higher levels of engagement in outpatient therapy specifically for individuals with serious mental health conditions is lacking.

Therapist and client assessments of engagement frequently differ and, therefore, focusing on client perspectives is a way of valuing their point of view and involving them more actively in treatment (Gillespie et al., 2004), which is an essential ingredient in a recovery orientation. Horvath and Symonds (1991) reviewed 24 studies on the impact of the therapeutic alliance on treatment outcomes, comparing client and therapist assessments as predictive of achieving positive outcomes. Their review supports the stance that client perspectives of the therapeutic alliance tend to be stronger predictors of treatment outcomes than therapist perspectives (Horvath & Symonds, 1991). In line with the literature reviewed, this research focused on client perspectives of the therapeutic alliance, therapist empathy, and perceived coercion and their impact on engagement in outpatient therapy.
Therapeutic Alliance

The relationship between client and therapist has been described using different terminology. A literature review conducted by McCabe and Priebe (2004) found studies referred to this concept as the *therapeutic relationship*, *helping relationship*, *working alliance*, *helping alliance*, or *therapeutic alliance*. For the purpose of this study, the relationship and alliance that occurs between therapist and client is referred to as the *therapeutic alliance* but incorporates literature that uses various terms.

There are numerous conceptualizations of the therapeutic alliance. Bordin (1979) conceptualizes the quality of the therapeutic alliance as reflecting three elements: an agreement on therapeutic goals, collaboration on completing tasks, and the affective bond that develops between the therapist and client. Holdsworth et al. (2014) define the therapeutic alliance as “how clients and counselors relate to each other and work with each other over the course of treatment” (p. 430). The recovery-oriented values of shared decision-making and collaboration (Atterbury, 2014; Jacobson & Greenley, 2001) are reflected in these conceptualizations of the therapeutic alliance. Often the most important factor in supporting recovery is a relationship of trust built with the provider (Davidson et al., 2007). Clients who find agreement with their therapist on treatment goals and who do not feel criticized by their therapist are more likely to engage in treatment (Ogrodniczuk, Joyce, & Piper, 2005). Consistent with these definitions, the therapeutic alliance was conceptualized in this study as the working relationship that develops between a client and therapist characterized by an agreement upon therapy goals, a sense of collaboration...
in the therapeutic process, and an affective bond built out of trust and respect – all prerequisites for meaningful engagement in treatment.

Client engagement is well established as a predictor of positive treatment outcomes (Jinks et al., 2012; Tetley et al., 2011). While client engagement and the therapeutic alliance are often discussed in a similar light, these concepts are clearly distinguishable from each other (Tetley et al., 2011). Hatcher and Barends (2006) summarize existing conceptualizations of the therapeutic alliance as describing the qualities of the relationship that exist for “purposive, collaborative work” (p. 297) to take place. These authors view engagement in therapeutic activities as the actualization of the therapeutic alliance (Hatcher & Barends, 2006). Through this lens, a strong therapeutic alliance can be viewed as a requirement for meaningful engagement in treatment.

There is robust evidence connecting the strength of the therapeutic alliance to increased engagement in treatment and various treatment outcomes. Farrelly et al. (2013) analyzed data collected from 569 participants with serious mental health conditions receiving community-based care in England who had recurring psychotic symptoms, recent psychiatric hospitalizations, and complex care needs. These authors found that clients who rated their alliance with their care coordinator as poor experienced higher rates of hospitalization and increased occurrences of self-harmful behaviors (Farrelly et al., 2013).

In a cross-sectional review of 400 clients with schizophrenia spectrum disorders experiencing first-episode psychosis, Melau et al. (2015) found a strong positive correlation between the therapeutic alliance and continued participation in treatment, in
addition to lower symptom severity and better social functioning. Kvrgic, Cavelti, Beck, Rusch, and Vauth (2012) conducted a similar study examining variables that impact engagement for individuals with schizophrenia spectrum disorders with a sample size of 156 participants. These authors found a stronger recovery orientation, a higher level of insight, and a lower level of self-stigma to be associated with a stronger therapeutic alliance (Kvrgic et al., 2012).

Strauss and Johnson (2006) examined the relationship between therapeutic alliance and several factors in a longitudinal study of 58 individuals receiving psychiatric services to treat bipolar disorder. These researchers found the strength of the alliance between a client and psychiatrist to be associated with a more positive attitude about the illness, less stigma experienced as a result of the diagnosis, and less severe manic symptoms (Strauss & Johnson, 2006). These authors posit that a stronger therapeutic alliance may result in individuals with bipolar disorder more easily accepting the need for treatment and increased receptivity to medication management (Strauss & Johnson, 2006). Their findings support the value of the therapeutic alliance in increasing engagement in treatment for individuals with bipolar disorder, at least in the context of the client’s relationship with a psychiatrist.

In the treatment of chronic depression, Klein et al. (2003) examined the relationship between the therapeutic alliance and symptom improvement for 344 clients assessed at early, middle, and later stages of treatment. These researchers found that a strong therapeutic alliance is significantly associated with symptom improvement when controlling for multiple other factors associated with symptom change (Klein et al.,
In a study examining the therapeutic alliance for 397 individuals diagnosed with a major depressive disorder with a sustained depressive episode, and without remission for at least 2 years, Arnow et al. (2013) found an early therapeutic alliance to predict a decrease in symptom severity and improvement across treatment methods.

Martin et al. (2000) conducted a meta-analysis of 79 studies comparing the therapeutic alliance to at least one quantifiable treatment outcome. They found a moderate effect size of 0.22 across studies, concluding, “if a proper alliance is established between a patient and therapist, the patient will experience the relationship as therapeutic, regardless of other psychological interventions” (Martin et al., 2000, p. 446).

In the Holdsworth et al. (2014) review of 79 studies on engagement described earlier, the therapeutic alliance was identified as an important factor in maintaining engagement in therapy and leading clients through creating positive changes in their lives. These authors did not account for potential differences in the impact of the therapeutic alliance on engagement based on diagnosis or severity of mental health symptoms. In a meta-analysis of 201 studies examining the impact of the therapeutic alliance on various outcomes across populations, Horvath, Del Re, Fluckiger, and Symonds (2011) found a significant effect size of 0.275. Connors, Carroll, DiClemente, Longabaugh, and Donovan (1997) analyzed the results of data collected associated with the therapeutic alliance from 952 participants receiving outpatient substance use treatment across multiple sites. These authors found that a stronger therapeutic alliance results in increased treatment participation and decreased drinking (Connors et al., 1997). The literature reviewed supports the value of the therapeutic alliance in improving
engagement and treatment outcomes for therapy in general and for individuals with serious mental health conditions in non-therapy treatment contexts. However, they fail to account for the experiences of individuals with serious mental health conditions seeking treatment through outpatient therapy, an increasingly common treatment choice.

**Empathy**

There are many different conceptualizations of empathy in social science research, which can at times make it a difficult concept to compare across studies (Kurtz & Grummon, 1972). Empathic understanding on a basic level involves how one is seen and known by another person (Duan & Hill, 1996). Drawing on the work of Carl Rogers and Heinz Kohut, Thwaites and Bennett-Levy (2007) conceptualize empathy as an attunement to the emotional experience of another person, while simultaneously drawing meaning from that person’s emotional experience. Similarly, empathy has been viewed as a cognitive and affective attunement to another person’s experience without experiencing it firsthand (Hogan, 1969). Consistent with these conceptualizations, Barrett-Lennard (2015) defined empathy as “a personal awareness of the other in their immediate feelings and meaning through actively receptive experiential engagement” (p. 36). A common thread throughout these conceptualizations of empathy is the ability of the therapist to attune to the client’s experience and respond in a way that conveys genuine caring and an ability to make meaning from the experience. This is consistent with the recovery-oriented practice of conveying acceptance and value in session, which often results in the client feeling genuinely cared for (Davidson et al., 2005; Davidson et al., 2007).
Empathy as a construct is widely studied in terms of its relationship to treatment outcomes and engagement. Elkin et al. (2014) reviewed data from a randomized controlled trial with participants diagnosed with depression assigned to various treatment modalities across three research sites. In their review of the dataset, Elkin et al. (2014) focused on therapist responsiveness and engagement, finding that client engagement increases when the therapist is responsive to the client by making genuine attempts to understand what the client is going through and affirm such experiences. Luborsky et al. (1971) reviewed 166 quantitative studies measuring factors that impact treatment outcomes across the general population enrolled in psychotherapy, and similarly found that empathy, as a therapist quality, is a strong predictor of positive outcomes. There remains a gap in research examining the impact of therapist empathy on engagement specifically for individuals with serious mental health conditions receiving outpatient therapy.

In a review of 31 unique therapist-client dyads within a university counseling system for which therapy sessions were audio recorded and multiple empathy measures utilized, Kurtz and Grummon (1972) found client perception of therapist empathy to be positively correlated with client progress and positive change. In a review of both theoretical and empirical literature, Moyers and Miller (2013) found therapist empathy to be a strong predictor of treatment outcomes for individuals with substance use disorders, which is a common co-occurring condition for individuals with serious mental health conditions (Sterling, Chi, & Hinman, 2011). Although an abundance of research exists demonstrating the relationship between therapist empathy, treatment engagement, and
outcomes, research exploring the impact of client perceptions of therapist empathy on engagement in outpatient therapy is virtually nonexistent for individuals with serious mental health conditions.

**Coercion**

Coercive psychiatric treatment is any treatment condition that leads to loss of freedom, property, or other interests of value if not followed (Jaeger & Rossler, 2010), which is antithetical to the current recovery orientation in service delivery. Solomon (1996) identifies three types of coercion – persuasion, force, and manipulation – that can impact an individual’s perceived level of choice to enter or remain in mental health services. Coercive practices exist within psychosocial treatment due in large part to practitioners wanting clients to comply with treatments they deem necessary to improve a client’s illness (Solomon, 1996). Coercion runs contrary to recovery-oriented practices that aim to promote personal autonomy and self-determination (Fardella, 2008) and that allow clients to make their own decisions, even those that may later be viewed as mistakes (Davidson et al., 2005).

Coercive practices are common in mental health treatment and often take the form of court-mandated treatment (Newton-Howes & Stanley, 2012); involuntary hospitalization, pressure from family or service providers, mandated participation in day treatment, counseling, or medication management (Solomon, 1996); and outpatient commitment or assisted outpatient treatment (Pridham et al., 2016). The impact of coercion on treatment engagement and outcomes carries mixed results. Kreyenbuhl et al. (2009) acknowledge that individuals who have experienced coercive treatment are more
likely to disengage from services and remain reluctant to reengage. In a review of research that included thirteen articles on the effects of coercion on treatment outcomes, Luciano et al. (2014) found that studies reported mixed results of both positive and negative impacts of coercion on treatment outcomes, as well as a negative impact of coercion on the therapeutic alliance.

Although the literature reviewed reflects the growing understanding of the potential consequences of coercion in mental health treatment, there is a lack of research pertaining to perceived coercion in the outpatient therapy setting (Luciano et al., 2014). Perceived coercion in this sense refers to a client’s sense of autonomy, choice, control, and freedom in treatment decisions. These factors are commonly used to assess how a client perceives coercion in mandated treatment or hospitalization (Gardner et al., 1993; Swartz, Wagner, Swanson, Hiday, & Burns, 2002), and easily translate conceptually to the therapy context. This study has the potential to uniquely contribute to the knowledge base on coercive practices by determining the impact of perceived coercion on engagement in therapy for individuals with serious mental health conditions.

In addition to coercion in the form of mandated treatment, clients may experience other forms of coercive pressure in relation to how they enter services. For example, a client referred by probation or pressured by family or treatment providers may experience a higher level of coercion to engage in services (Solomon, 1996), a phenomenon that is widespread in mental health treatment (Gardner et al., 1993). Clients may also experience their participation in treatment as a requisite to maintain housing or financial payee services (Christy et al., 2003). The literature reviewed recognizes that coercion
can be experienced in a variety of circumstances, while supporting the need to identify the impact of multiple aspects of coercion on treatment engagement. Perceived coercion as measured in this study incorporated items that include perceived pressure to initiate therapy services as well as coercive undertones in the therapeutic context.

**Ability to Form a Therapeutic Relationship**

Despite the impairments that individuals with serious mental health conditions experience, particularly to the ability to form relationships, evidence suggests that this population can form a strong therapeutic bond with a therapist, which as previously illustrated is associated with better engagement in treatment. In a study examining the connection between therapeutic alliance and treatment outcomes for 143 adults with schizophrenia initiating treatment through inpatient psychiatric hospitalization, Frank and Gunderson (1990) found that after one month, clients diagnosed with schizophrenia with acute psychosis were rated as follows: 14.2 percent of clients had a good alliance, 51.2 percent had a fair alliance, and 34.6 percent had poor alliances. Following these clients further, alliances started to improve for most clients after 6 months of therapy (Frank & Gunderson, 1990). These authors found that even though it was difficult and took longer to build an alliance, forming a strong therapeutic alliance for this population increased engagement and resulted in better treatment outcomes (Frank & Gunderson, 1990).

Keller, Zoellner and Feeny (2010) assessed treatment engagement for individuals with posttraumatic stress disorder with high levels of symptom severity, recognizing that symptoms and histories frequently associated with this disorder may impact the ability to form a therapeutic alliance. They found that, despite interpersonal difficulties often
experienced by individuals with posttraumatic stress disorder, this population can form a strong therapeutic alliance that is associated with higher rates of engagement in treatments (Keller et al., 2010). Salvio, Beutler, Wood, and Engle (1992) similarly conclude that the ability to form a meaningful therapeutic relationship early in treatment is critical to the success of treatment. They found the strength of the therapeutic alliance in the treatment of 46 individuals with depression at week five to be a strong predictor of that relationship continuing throughout treatment (Salvio et al., 1992).

The research reviewed suggests that even though it can be more difficult for individuals with serious mental health conditions to form a therapeutic alliance, working through this process is a crucial step in establishing and maintaining engagement in treatment and subsequently yielding positive treatment outcomes. Given the variation in the quality of the therapeutic relationship over time noted in some studies, and what can be considered a phase-based process for developing a therapeutic alliance (Ardito & Rabellino, 2011), it is important to control for the length of time with current therapist when examining the relationship between therapeutic alliance and engagement in outpatient psychotherapy.

The literature reviewed pertaining to engagement in treatment, the therapeutic alliance, therapist empathy, perceived coercion, and the ability for individuals with serious mental health conditions to engage in treatment collectively support the goals of this research study. Research on engagement thus far has encompassed a variety of factors, weighing more heavily on treatment type and client characteristics than on the specific dynamics reflected in the interactions between client and therapist. Research that
focuses on engagement in therapy for individuals with serious mental health conditions is sparse.

This study examined the dynamics reflected in the interactions between the client and clinician in the therapy context, with a focus on client perceptions of therapist empathy, perceived coercion, and the strength of the therapeutic alliance. Unique to this study was a focus on how these factors influence each other for individuals with serious mental health conditions. The research reviewed has demonstrated strong correlations between these factors within the context of specific treatment modalities or programs, but research has yet to be conducted on studying these factors from the client’s perspective for this population in the therapy context. The literature reviewed suggests that it would be valuable to control for additional variables sometimes associated with client engagement, including symptom severity, co-occurring substance use, education level, age, and the amount of time working with the therapist.

**Conceptual Model**

This study is premised on the assumption that, even though it may be difficult and take more time to engage individuals with serious mental health conditions in outpatient therapy, it is possible and likely influenced by multiple factors. Drawing from literature on client engagement in therapy across populations, and engagement for individuals with serious mental health conditions in other treatment contexts, this study identified therapist empathy, the therapeutic alliance, and perceived coercion as potentially impacting client engagement.
While these constructs have been demonstrated to be distinct from each other, the relationship between them reflects some conceptual overlap. For example, the therapeutic alliance encompasses an affective and understanding bond, a similar characteristic of empathic responding. The therapeutic alliance is also associated with agreement upon goals, which is inversely related to pressure or coercion. It is common, particularly in social work research, for independent variables to be interrelated (Morrow-Howell, 1994). Given the relationships between these variables, the ability to better isolate the impact of any one variable is strengthened by an analysis of these variables together. However, this results in a higher risk that the findings either inflate or underestimate inferences drawn from the regression data (Thompson, Kim, Aloe, & Becker, 2017). Accounting for this multicollinearity in regression analysis and adjusting the statistical models accordingly is crucial to maintaining the statistical integrity of the findings (Thompson et al., 2017). This commonly involves omitting one or more of the collinear variables from regression analysis models (Morrow-Howell, 1994).

The first model for this study examined the relationship between therapist empathy, the therapeutic alliance, and perceived coercion on client engagement through multivariate regression analysis. The second model added the control variables identified in this literature review in order to better isolate the impact of the independent variables on client engagement. Subsequent models adjusted the variables included in each analysis to account for the multicollinearity between therapist empathy and the therapeutic alliance discovered in the first two models.
This conceptual model reflects the dynamic nature of how these variables may interact to affect a client’s sense of engagement in therapy. The resulting analysis aimed to better understand how these variables, individually and collectively, contribute to or detract from engagement for this population in the context of outpatient therapy. As this is a less restrictive option for care compared to the intensity of services so frequently received, any identification of how these factors interact will help support the recovery movement in mental health care.

**Hypothesis**

This research set forward the following hypothesis: adults with serious mental health conditions who perceive a stronger therapeutic alliance, a greater degree of therapist empathy, and a lower degree of coercion will be associated with a higher degree of client engagement in outpatient therapy, while controlling for symptom severity, co-occurring substance use, education level, age, and the amount of time working with the therapist.

**CHAPTER 2: RESEARCH DESIGN AND METHODS**

**Design**

This exploratory study utilized a cross-sectional correlational research design and elicited data on all variables at a single point in time from individuals with serious mental health conditions enrolled in outpatient therapy. Participants completed a web-based survey after confirming that they met eligibility requirements and providing informed consent to participate. Participants provided demographic information as well as their
diagnosis and treatment history. Subsequently, participants completed measures of engagement, the therapeutic alliance, therapist empathy, and perceived coercion. The survey also gathered data pertaining to all control variables identified, factors that potentially contribute to the individual seeking services, and their experiences with medication. The data were analyzed to determine the relationship between the independent variables, dependent variables, and control variables. Participants also provided narrative responses to two questions related to factors that contribute to or detract from engagement. Although the survey was anonymous, participants had the option of providing their contact information to be potentially contacted for follow-up conversations or to be eligible to receive an incentive with all personal information delinked from survey responses. The researcher was the sole data collector.

**Setting**

Professional and academic relationships were utilized to identify multiple recruitment outlets connected to the study population. These consisted of mental health centers; national, statewide, and local advocacy and support groups; and a web-based platform linking survey takers to researchers.

**Sample Size**

A review of research measuring the concepts of interest in this study suggested that anticipated effect sizes on average are moderate for these concepts. In a meta-analysis of 58 studies measuring the therapeutic alliance with various outcome variables, Martin et al. (2000) found an overall weighted effect size of 0.22 through a product-moment correlation analysis, which reflects a moderate effect size. In a meta-analysis of
over 200 studies measuring a similar relationship between variables and using a restricted maximum likelihood (random-effects) model, Horvath et al. (2011) also found a moderate effect size ($r = 0.275$). Utilizing a product-moment correlation analysis, Horvath and Symonds (1991) found in reviewing 24 studies comparing the therapeutic alliance to treatment outcomes an overall effect size of $r = 0.26$. In a study measuring the impact of perceived coercion on the client’s perception of services, Stanhope et al. (2009) found a medium-to-large effect size ($Cohen’s f^2 = 0.34$). In a meta-analysis of research measuring the relationship between therapist empathy and client outcomes, Elliott, Watson, Bohart, and Greenberg (2011) found a weighted effect size across 59 studies of $r = 0.31$, reflecting a medium effect size.

The effect sizes of the studies cited correspond most closely with the medium-to-large effect size when compared to Cohen’s power table (Cohen, 1992) for multiple correlation analysis. Considering the effect sizes found in the research reviewed, this study anticipated a medium effect size with a significance criterion of $p = 0.05$. Using Cohen’s power table (Cohen, 1992) to identify the sample size needed to assure the necessary statistical power to detect a medium effect size using a hierarchical multiple regression analysis with eight independent variables, a sample size of $N=107$ was identified. In order to protect against a loss of power due to incomplete surveys, the study aimed to recruit 127 participants. The final sample size for the study was 131.

**Inclusion and Exclusion Criteria**

In order to be included in this study, individuals were required to be at least 18 years old, enrolled in outpatient therapy, have a qualifying serious mental health
condition, and experience significant impairment in functioning in one or more major life areas, including social relationships, ability to work, completing activities of daily living, and meeting basic needs for food, health, safety, and shelter. The diagnoses included in this study were schizophrenia, schizoaffective disorder, delusional disorder, schizophreniform disorder, bipolar I disorder, bipolar II disorder, major depressive disorder, posttraumatic stress disorder, and borderline personality disorder. Outpatient therapy was operationalized as session-based treatment for the purpose of talking through problems and developing skills to cope with a mental health condition. When the survey went live, several hundred survey-takers from other countries almost immediately accessed the survey providing clearly inauthentic responses. It was decided at that time that participants had to be located within the United States to be included in the study. Participants who did not meet all these eligibility requirements were excluded from the study. No additional exclusion criteria were identified.

**Recruitment**

Recruiting individuals with serious mental health conditions into research is a challenging task, often with substantial barriers (Howard, de Salis, Tomlin, Thorncroft, & Donovan, 2009; Jorgensen, Munk-Jorgensen, Lysaker, Buck, Hanson, & Zoffman 2014). The recruitment process for this study took place over nine months with participants recruited through convenience and nomination sampling using a multipronged approach. At agencies, therapists nominated clients who met the eligibility requirements to participate in the study. Participating agencies were Hall-Mercer Community Behavioral Health Center, a branch of Penn Psychiatry at the University of
Pennsylvania in Philadelphia, and Comprehensive Healthcare, a regional behavioral health agency serving central and southern Washington State. Agencies were provided an iPad with digital access to the survey as well as paper copies of the survey. No participants completed the survey using the iPad and one participant completed the paper survey. Agencies were subsequently provided with a recruitment flyer, inviting interested participants to email the researcher directly for a single-use link.

Additional participants were recruited through advocacy support groups, with emails sent to listservs and study recruitment materials included in newsletters. These participants accessed the survey through an anonymous link or through a single-use link provided upon a personal request to participate via email to the researcher. Participants who accessed the survey through an anonymous link were eligible to enter a drawing to win one of twenty $25 Amazon gift cards. Individuals who requested to participate by emailing the researcher were eligible to receive a $10 Amazon gift card.

Given the ongoing challenges recruiting participants for this study, the largest segment of participants was recruited through a well-known study recruitment platform, Amazon Mechanical Turk (MTurk). As this platform is becoming widely used for research, many studies have emerged comparing MTurk samples to traditional samples and recommending precautions for researchers to consider taking. Goodman, Cyder, and Cheema (2012) found that MTurk data were reliable and consistent with standard decision-making bias. These authors suggest including screening questions to better understand attention and comprehension levels, avoiding questions that elicit factual answers, and understanding that differences in financial and social belief systems may
impact findings (Goodman et al., 2012). Buhrmester, Talaifar, and Gosling (2018) identify MTurk as an efficient and inexpensive means for recruiting study samples that result in data with similar psychometric standards as data collected using other means. They recommend incorporating safeguards for inattention or dishonesty (Buhrmester et al., 2018). In line with these recommendations, this study contained screening questions to check attention and comprehension, avoided factual response questions, and minimized dishonest participation by excluding responses that originated from duplicate IP addresses. These same precautions were taken across recruitment methods utilized in this study. Participants recruited through MTurk received $5-8 each as compensation for their time.

As mentioned, recruitment for this study utilized a multipronged approach. While the recruitment information was consistent across recruitment strategy, the actual materials varied with each. Referring therapists at both agencies were first provided with a study recruitment flyer inviting participants to complete the survey using an iPad and were subsequently provided with a flyer inviting interested participants to contact the researcher directly by email to request a single-use link (see Appendix A). Potential participants recruited through advocacy and support groups received either a long version of the recruitment text through a newsletter or email list, or a shorter announcement on Facebook and Twitter. These included options for the participant to complete the survey by following an anonymous link, or by contacting the researcher individually to request a single-use link to the survey (see Appendix B). Participants recruited through MTurk
received the study recruitment information and survey instructions through the MTurk platform and were provided with a different anonymous link (See Appendix C).

A total of 196 individuals within the United States began the survey (22 through anonymous link, 30 through email request, and 144 through MTurk). Participants accessing the survey were first asked to confirm that they met all the study’s eligibility requirements and reviewed the informed consent document (see Appendix D) before proceeding to the survey content (see Appendix E for the survey in its entirety). The informed consent text was slightly modified to reflect recruitment strategy and corresponding incentive. Participants who agreed to participate in the study provided an affirmative response prior to beginning the survey. The survey also collected information about how each participant heard about the survey and what city and state they were located in. In addition to checking for participant attention, these screening questions were used to ensure authenticity of responses as much as possible with an anonymous-link survey. This was accomplished through comparing geolocations with stated locations and crosschecking the study referral source identified by the participant with the survey link that corresponded to that type of referral source.

Of the 196 potential participants who began the survey, 43 (32.8%) began the survey but were determined to be ineligible for the study based on their initial responses, 4 (3.1%) participants began the study but did not finish, 10 (7.6%) were rejected as inauthentic (stated location not matching geolocation or referral source did not match recruitment method’s survey link), and 8 (6.1%) were rejected due to being completed from duplicate IP addresses. The authenticity of 2 surveys originating from the same IP
address was verified through contacting the survey-takers. There were 131 surveys (66.8% of initiated surveys) remaining that were included in this analysis. Of these 131 participants, 89 (67.9%) reported accessing the survey through MTurk, 24 (18.3%) through a support or advocacy group, 10 (7.6%) referred by a mental health provider, and 8 (6.1%) through Facebook or Twitter.

**Measures**

All data were collected through an anonymous web-based survey. The survey in its entirety was available in both English and Spanish, utilizing professional translation services, which included forward translation, back translation and reconciliation. The survey was also pilot tested with five individuals meeting eligibility criteria for participation in the study. This test group reflected a range of diagnoses, including schizophrenia, bipolar disorder, borderline personality disorder, and posttraumatic stress disorder. The survey took 15-30 minutes to complete for all but one participant. One participant took almost an hour to complete the survey using an iPad, as severe tremors interfered with the ability to navigate the device. Paper versions of the survey were provided to agencies in response to this observation. From this test group, it was determined that expecting 15-30 minutes to complete the survey for most participants was reasonable. Test group members suggested minor word choice changes, but none of these suggestions significantly altered the survey content or concepts. All suggestions were incorporated. The researcher received an additional suggestion early in the data collection process to add a disclaimer that if the participant did not take medication to
treat their mental illness, to skip medication-related questions that did not apply to them. This was subsequently incorporated into the survey.

The survey was designed using skip logic to terminate the survey prematurely if answers to any of the eligibility questions indicated the person did not meet the study’s eligibility requirements, or the individual did not consent to participate. Individuals from outside of the United States were prevented from accessing the survey. Eligibility questions included information about diagnosis, nature of impairment experienced, and verification of being at least 18 years old and current participation in outpatient therapy. Following an affirmative response to the informed consent document, the survey collected demographic and study-related information (including age, gender, race, ethnicity, location, and study referral source). Participants then indicated which services they currently receive, which services they have received in the past, how long they have received mental health treatment, how long they have been working with their current therapist, and their reason for initiating therapy with their current therapist.

Subsequently, data related to client engagement, the therapeutic alliance, therapist empathy, perceived coercion, symptom type and severity, medication adherence, and co-occurring substance use were collected using established measurement scales. Participants also had the option of providing written responses to two engagement-related questions. Participants were then invited to provide their name and contact information, delinked from survey responses, to be eligible to receive the incentive. The incentive for using an anonymous link was entry into a drawing to win one of twenty $25 Amazon gift cards. Participants who emailed the researcher directly to participate were eligible to
receive $10 Amazon gift cards. Participants recruited through MTurk were supplied a randomly generated four-digit number at the end of the survey, which they entered in the MTurk platform to confirm completion and enable the matching of their MTurk identification to their survey response for survey review and payment approval.

**Dependent variable: client engagement.** Engagement was operationalized as keeping appointments, experiencing open communication with the therapist, finding treatment useful, and feeling involved in the treatment process, consistent with the subscales of the measure created by Hall and colleagues (2001) that has been adapted to be administered to clients and has been found to maintain most of the psychometric properties of the provider-rated version of the scale (Gillespie et al., 2004). This self-report engagement measure consists of eleven items covering six dimensions utilizing 5-point Likert scale responses. Items include statements like “How often do you discuss your personal problems with ____?” and “How often are you actively involved in your treatment, i.e., how often do you really want to involve yourself in your treatment?” Gillespie et al. (2004) found the following psychometric properties when administering this measure: a Kolmogorov-Smirnov assessment reflected normal data distribution allowing for statistical analysis, the measure had good test-retest reliability (a Pearson’s $r = 0.85$), the measure demonstrated good internal reliability (Cronbach’s alpha = 0.80), and the measure reflected relatively good concurrent validity when comparing self-report and staff-rated versions of the same scale (Pearson’s correlation coefficient of $r = 0.49$). This measure was slightly modified in this study to more specifically reflect upon engagement in therapy by replacing the word “keyworker” with “therapist” and the word
“treatment” with “therapy.” As implemented in this study, the client engagement scale reflected acceptable internal consistency with a Cronbach’s alpha of 0.73.

**Independent variable: therapeutic alliance.** The therapeutic alliance was operationalized as the quality of the working alliance between the therapist and client as evidenced by an agreement upon goals, collaboration on tasks, and the strength of the therapist-client affective bond. This is consistent with Bordin’s (1979) conceptualization of the therapeutic alliance, which encompasses agreement upon goals and tasks of therapy as well as the affective bond between client and therapist. Bordin’s conceptualization of the therapeutic alliance is viewed as “the most robust definition of alliance to date” (Hatcher & Barends, 2006). The Working Alliance Inventory (WAI), based on Bordin’s conceptualization, was the most used measure of therapeutic alliance among the 79 alliance-related studies reviewed by Martin et al. (2000). While the WAI can measure the alliance between an individual and any service provider, participants in this study were asked to reflect specifically on their relationship with their therapist when completing this measure.

Horvath and Greenberg (1989) developed the WAI incorporating Bordin’s conceptualization of the therapeutic alliance, thereby focusing on: the strength of therapist and client collaboration on tasks perceived as relevant and potentially effective; agreement on goals and targets of work; and the positive personal attachment that stems from mutual trust, confidence, and acceptance. On the full version of the WAI, questions related to these constructs make up a 36-item questionnaire administered to clients utilizing a 7-point Likert scale. Participants rate their agreement with statements like
“_______ and I agreed about the things I will need to do in therapy to help improve my situation” and “I was frustrated by the things I was doing in therapy.”

The WAI has strong psychometric properties, including high construct validity through consultation with experts and professionals during its development, adequate convergent and fair discriminant validity when compared to items on the Counselor Rating Form and the empathy subscale of the Barrett-Lennard Relationship Inventory (Horvath & Greenberg, 1989), and high internal reliability with a Cronbach’s alpha of 0.93 on the client version (Horvath, 1981). A version of this measure has been used with this population in the context of case management services (Solomon, Draine, & Delaney, 1995). For this study, the therapeutic alliance was measured utilizing a shortened version of the Working Alliance Inventory (WAI-S) developed by Tracey and Kokotovic (1989).

The WAI-S (Tracey & Kokotovic, 1989) reflects the same conceptual orientation of the original WAI, focusing on agreement upon goals and tasks as well as the affective bond that develops between the client and therapist. This 12-item questionnaire utilizes a 7-point Likert scale prompting respondents to rate their agreement with statements from never (1) to always (7). Tracey and Kokotovic (1989) found strong internal consistency with alphas ranging from 0.90 to 0.92 for client ratings of subscales and 0.98 for the overall alliance. Hanson, Curry and Bandalos (2002) reviewed 25 studies that used both the WAI and WAI-S, and that reported at least one subscale’s reliability. In their review, they found internal consistency and interrater reliability estimates for the overall alliance (total of subscales) to be 0.83-0.97 for the WAI and 0.92-0.98 for the WAI-S (Hanson et
al., 2002). They conclude that both versions are reliable and relatively stable across samples (Hanson et al., 2002).

The WAI-S developed by Tracey and Kokotovic (1989) was chosen over the modified short version (WAI-SR) developed by Hatcher and Gillaspy (2006) because a Spanish-language version of the WAI-S has already been developed and was found to have good predictive validity and excellent internal reliability and internal consistency (Andrade-González & Fernández-Liria, 2016). This study, however, incorporated a modification made by Munder, Wilmers, Leonhart, and Barth (2009) to the WAI-SR where they replaced “___________” with “my therapist” into the version of the WAI-S. As implemented in this study, the WAI-S reflected excellent internal consistency with a Cronbach’s alpha of 0.92.

**Independent variable: therapist empathy.** Empathy was measured using items on the empathy subscale of the Barrett-Lennard Relationship Inventory (BLRI) taken from the most current revision (Barrett-Lennard, 2015). This empathy subscale consists of 12 empathy-related items nested in 24 questions, a strategy used to minimize the influence of one response related to empathy on another (Barrett-Lennard, 2015). In the original empathy subscale of the BLRI, participants responded to statements by rating them as no, I strongly feel that it is not true (-3); no, I feel it is not true; (-2); no, I feel that it is probably untrue, or more untrue than true (-1); yes, I feel that it is probably true, or more true than untrue (+1); yes, I feel it is true (+2); and yes, I strongly feel that it is true (+3). For this study, these numbers corresponded to a scale that included strongly disagree, disagree, disagree more than agree, agree more than disagree, agree,
and strongly agree to better match terminology used in other scales throughout the survey to avoid any unnecessary confusion.

The statements measuring empathy in this subscale of the BLRI include:

_________ usually senses or realizes what I am feeling; __________ reacts to my words, but does not see the way I feel; __________ nearly always sees exactly what I mean; __________ appreciates just how the things I experience feel to me; __________ does not understand me; __________’s own attitude towards things I do or say gets in the way of understanding me; __________ realizes what I mean even when I have difficulty saying it; __________ doesn’t listen and pick up on what I think and feel; __________ usually understands the whole of what I mean; __________ doesn’t realize how sensitive I am about some of the things we discuss; __________’s response to me is so fixed and automatic that I don’t get through to him/her; and when I am hurting or upset __________ recognizes my painful feelings without becoming upset him/herself (Barrett-Lennard, 2015).

Barrett-Lennard (2015) presents an abundance of research to support this instrument’s reliability and validity, including high internal consistency of coefficients across subscales using a split-half analysis, high test-retest reliability, high content validity through a collaborative development of the measure by experienced researchers, and high evidence of construct validity including predictive qualities. The BLRI empathy subscale has also been correlated (at 0.66) with tape-judged ratings of therapist empathy (Kurtz & Grummon, 1972), suggesting convergent validity. In addition to the revised rating descriptors, this measure was also modified slightly by replacing
“__________” with “my therapist” to better reflect the specific context this study aimed to measure while avoiding any potential confusion with requiring participants to mentally insert their therapist’s name in the “__________” while reading the survey. As implemented in this study, the therapist empathy subscale of the BLRI reflected excellent internal consistency with a Cronbach’s alpha of .91.

**Independent variable: perceived coercion.** Coercion was operationalized as the degree of autonomy that one feels in session related to control, choice, freedom, origination of ideas, and influence, consistent with a modified version of the MacArthur Admission Experience survey (AES) utilized by Swartz et al. (2002) in an outpatient setting.

Although originally developed to be administered at time of hospital admission, the AES has been regularly modified to measure perceived coercion in other settings, including in outpatient treatment (Jaeger & Rossler, 2010; Swartz et al., 2002) and in assertive community treatment (Stanhope et al., 2009). Similar to Swartz et al. (2002), Poulsen (1999) utilized a 5-item version of the AES assessing participants’ perception of influence, control, choice, freedom, and idea, adding a Likert scale from no perceived coercion (0) to maximum perceived coercion (5). This 5-item modified AES – also referred to as the Perceived Coercion Scale (PCS) – demonstrated strong internal consistency (Gardner et al., 1993; Jaeger & Rossler, 2010), intercorrelation between subscales of the AES (Jaeger & Rossler, 2009), and external validity (Nicholson, Ekenstam, & Norwood, 1996).
Given the previous adaptations of the AES to the outpatient setting as well as the application of a Likert-type scale to the measure, the current study combined these previous modifications, resulting in a modified AES that is both applicable to the outpatient therapy setting and consists of Likert-type responses. The measure included the perceived coercion and process exclusion subscales of the AES modified to the outpatient setting by Swartz et al. (2002), similar to the measure as utilized by Stanhope et al. (2009). Participants responded to nine statements related to experiences of coercion in therapy, indicating how strongly they agreed or disagreed with the statements utilizing a 5-point Likert scale. As implemented in this study, the modified AES reflected strong internal consistency with a Cronbach’s alpha of .88.

**Control variable: duration of time working with current therapist.** Duration of time working with current therapist was operationalized as the amount of time the participant has been working with the therapist with whom they are reflecting upon when answering survey questions. Participants were asked the following question: *How long have you been working with your current therapist?* Responses were collected in months for lower amounts of time and years for periods of time over 1 year. Data were converted into years for statistical analysis at a continuous level.

**Control variable: symptom severity.** The Colorado Symptom Index (CSI) is a widely used instrument to quickly measure a client’s symptom severity through self-report. The CSI is psychometrically sound and has been tested with a variety of populations. Boothroyd and Chen (2008) tested the psychometric properties of the CSI through administering the instrument to 3,874 Medicaid recipients in the state of Florida.
In this administration of the scale, they found the measure to meet several criteria to support both reliability and validity of the measure, including a Cronbach’s alpha score of 0.92 for internal consistency and a test-retest reliability of $r = 0.71$ (Boothroyd & Chen, 2008). The measure’s convergent validity is supported by a correlation coefficient of 0.50 when compared to a daily activity functioning measure with a predictable relationship, and its discriminate validity is supported by a significant difference in the score of disability subgroups (Boothroyd & Chen, 2008). These results are comparable to previous tests of the measure reviewed by Boothroyd and Chen (2008).

Conrad et al. (2001) tested the psychometric properties of a modified version of the Colorado Symptom Index (MCSI) using a population of 1,381 homeless individuals across eight mental health and substance use treatment facilities. This version is modified from the original CSI in that the authors eliminated four follow up questions and changed the scoring from a 1-5 scale to a 0-4 scale (Conrad et al., 2001). The resulting MCSI consists of 14 questions with a total possible score of 56. Conrad et al. (2001) found strong content validity when compared to other instruments measuring similar concepts, good test-retest reliability with a coefficient score of 0.79, a Cronbach’s alpha score of 0.90 suggesting strong internal consistency, and a correlation coefficient of 0.62 when compared to other measures suggesting high construct validity. Given the strong psychometric properties of both the CSI and MCSI, this study utilized the MCSI to measure symptom severity through self-report. As implemented in this study, the MCSI reflected good internal consistency with a Cronbach’s alpha of .85.
**Control variable: co-occurring substance use problem.** The CAGE Questionnaire is a commonly used brief 4-question instrument that yields yes or no responses related to an individual’s experience with needing to cut down their drinking, feeling annoyed with people criticizing their drinking, feeling guilty about drinking, and needing a drink first thing in the morning to alleviate a hangover. In a systematic review of studies measuring the psychometric properties of the CAGE Questionnaire on a variety of populations, Dhall and Kope (2007) found high test-retest reliability (0.80-0.95), acceptable correlations with other instruments measuring similar concepts (0.48-0.70), and sufficient validity as evidenced by the CAGE’s ability to positively predict substance use disorders.

There is a modified version of the CAGE that includes both alcohol and other drugs called the CAGE-AID. In an assessment of how various substance abuse screening measures compare to each other, Dyson et al. (1998) included both the CAGE and the CAGE-AID in their analysis. These authors found that the CAGE had strong inter-rater reliability with a kappa of 1.0, good test-retest reliability with a kappa score of 0.58, and a high internal consistency reflected in a Cronbach’s alpha score of 0.80 when administered at the time of intake (Dyson et al., 1998). The CAGE also has good construct validity when compared to other measures, including the Short Michigan Alcoholism Screening Test, the Chemical Use, Abuse, and Dependence Scale, and the Addiction Severity index (averaging 0.51); and strong criterion validity with predictive values similar to other more in-depth screening instruments (Dyson et al., 1998).
The CAGE-AID yielded similar psychometric properties, including the same kappa score of 1.0 for inter-rater reliability, a kappa score of 0.62 for test-retest reliability, and a Cronbach’s alpha of 0.84 at time of intake, indicating strong internal consistency (Dyson et al., 1998). These authors found the CAGE-AID to also be strongly correlated with the same measures the CAGE was correlated with (averaging 0.61).

Given the strong psychometric properties of the CAGE and CAGE-AID, this study used the CAGE-AID as a brief self-report measure of the participant likely having a co-occurring substance use problem. As implemented in this study, the CAGE-AID reflected good internal consistency with a Cronbach’s alpha of 0.88.

**Control variable: education level.** Education level was operationalized as the highest level of education achieved at the time of entry into the study. Participants were asked the following question: *What is the highest level of schooling you have completed?* Participants chose from the following options using a drop-down menu ranging from 8th grade or below to graduate degree. For the purpose of data analysis, education was treated as a continuous variable, with each level represented by a number: *8th grade or below* (1); *9th grade* (2); *10th grade* (3); *11th grade* (4); *12th grade or GED* (5); *some college* (6); *undergraduate degree* (7); and *graduate degree* (8).

**Control variable: age.** Age was operationalized as the participant’s age at the time of entry into the study. Participants were asked the following question as part of the web-based survey: *What is your current age?* The participant selected from a drop-down box with numeric value in years.
**Descriptive variable: gender.** Gender was operationalized as the participant’s identified gender at time of entry into the study. Participants were asked the following question: *What is your identified gender?* Participants chose from the following options: *male, female, transgender,* and *other.*

**Descriptive variable: race and ethnicity.** Race and ethnicity were operationalized as the ethnic or racial group the participant identified with at the time of entry into the study. Participants chose from the following options for race: *American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, Multiracial,* or *Some Other Race.* Additionally, participants indicated whether they identify with having Hispanic or Latino ethnicity.

**Descriptive variable: serious mental health condition.** Serious mental health condition was operationalized as having received at least one diagnosis based on the Diagnostic and Statistical Manual of Mental Disorders (DSM), 5th edition (American Psychiatric Association, 2013) that results in significant impairment in at least one life area. Qualifying diagnoses for this study were limited to those commonly associated with serious mental health conditions, including schizophrenia, schizoaffective disorder, delusional disorder, schizophreniform disorder, bipolar I disorder, bipolar II disorder, major depressive disorder, posttraumatic stress disorder, and borderline personality disorder. For areas of impairment, statements reflected impairment to social and family functioning, ability to maintain full-time employment, completing daily living activities, and meeting basic needs. Participants self-reported their diagnosis and areas of impairment experienced, selecting all that applied. Although not factored into the
determination of whether the participant met the eligibility criteria for the study, participants were also able to enter other diagnoses they received in a text entry box.

**Descriptive variable: treatment history.** Centorrino et al. (2001) found through a review of 62 clients attending 896 therapy sessions that the length of time receiving mental health treatment is not associated with increased appointment keeping, while recognizing it as a valuable factor to include when examining engagement in mental health treatment. Treatment history was operationalized in this study as the overall duration of time receiving mental health treatment, the type of previous mental health services received, and services currently receiving.

Participants were asked the following questions: *How long have you been receiving mental health treatment?* Participants responded by indicating the number of years and/or months they have been receiving treatment. Time in treatment was collapsed into 1-year increments for statistical analysis. Separately, participants indicated which mental health services they have received in the past and which mental health services they currently receive, selecting one or more of the following for both past and current treatment: *outpatient therapy, case management/care coordination, medication services, day treatment or drop in center, crisis services, living in a mental health group home, assertive community treatment (ACT/PACT), and inpatient hospitalization.* Participants could also enter other services in a text entry box for both questions.

**Descriptive variable: reason for initiating therapy services.** Reason for initiating therapy services was operationalized as any dynamics reflective of the degree of choice, pressure, coercion, or leverage in how the client enters services. Participants
were asked the following question: *How did you decide to begin services with your current therapist?* Participants chose from the following options: *started services on my own, referred by the legal system (probation, the court, attorney), pressured by family and/or friends to begin services, referred by a different mental health provider, or referred by an inpatient psychiatric hospital as part of my aftercare.* Participants could also enter other reasons in a text entry box.

**Other variable: factors associated with an increased or decreased sense of involvement.** In order to obtain a more in-depth understanding, participants were asked two questions for which they could provide a narrative response. These questions included: *What does your therapist do that makes you feel more engaged in therapy (i.e., more likely to attend appointments, more likely to communicate openly with your therapist, more likely to complete therapy goals)?* and *What does your therapist do that makes you feel less engaged in therapy (i.e., less likely to attend appointments, less likely to communicate openly with your therapist, less likely to complete therapy goals)?* While responses to these open-ended questions were not analyzed in the current study, the narrative responses collected will be later evaluated through qualitative analysis. Participants were invited to provide their name and contact information if they were interested in participating in potential follow-up conversations conducted by the researcher; however, this was completely voluntary, and participants could choose to not provide this information.

**Other variable: medication adherence.** The Medication Adherence Rating Scale (MARS) is a self-report measure that has been found to have strong psychometric
properties (Lam & Fresco, 2015). Thompson, Kulkarni, and Sergejew (1999) tested the psychometric properties of the MARS using a population of 66 individuals diagnosed with schizophrenia or other psychotic disorders, bipolar disorders, depression, or other diagnoses where perceptual disturbances are present. These authors found high internal consistency with a Cronbach’s alpha score of 0.75, which is similar to other measures the authors reviewed (Thompson et al., 1999). They found high test-retest reliability with a Chi-square of 0.72, strong construct validity when compared to similar self-report measures, and a positive relationship between self-report scores and blood levels tested (Thompson et al., 1999). Given the ease of self-administration and the strong psychometric properties, this studied included the MARS for assessing for medication adherence. It was determined early in the planning process for this study that the projected study sample size limited the utilization of medication adherence as a unique variable in the current analysis. However, attitude toward medication was a question on the client engagement scale used in this study. Data gleaned from inclusion of the MARS were still collected for potential use in future analyses.

**Data Analysis**

Descriptive statistics were employed, indicating the frequency, mean, and distribution of responses to demographic information as well other information collected related to diagnosis, and treatment history. Scales were assessed for distribution of data and internal consistency. Subsequently, the hypothesis was tested using multivariate regression analysis with hierarchical blocks. All independent variables (therapeutic
alliance, therapist empathy, and perceived coercion) were tested first as a block to
determine their relationships to the dependent variable (client engagement):

Model 1: Client Engagement = Therapeutic alliance + Therapist empathy + Perceived
coercion

All control variables (symptom severity, co-occurring substance use, education
level, age, and duration of time working with current therapist) were tested second as a
block added to the first model to determine their relationships to the dependent variable
(client engagement):

Model 2: Client Engagement = Therapeutic alliance + Therapist empathy + Perceived
coercion + Symptom severity + Co-occurring substance use + Education level + Age +
Duration of time working with current therapist

Given the conceptual overlap between the independent variables, the combination
of all independent variables was assessed for multicollinearity to determine the degree of
interrelatedness. Multicollinearity can occur when predictor variables are interrelated
and can destabilize the estimated impact of predictor variables (Midi, Sarkar, & Rana,
2010). This destabilization can result in unreliable inferences drawn from the regression
data (Thompson et al., 2017). The potential for multicollinearity was assessed in this
study using Pearson’s correlation coefficients and variance inflation factors (VIF), two
commonly used methods for assessing the likelihood of multicollinearity (Thompson et
al., 2017). A Pearson’s correlation coefficient of 0.80 or greater indicates a high
likelihood of multicollinearity (Thompson et al, 2017), and while professional opinions
differ on the cutoff value for a VIF, the most conservative cutoff value has been established as 2.5 or greater (Allison, 1999). A multicollinearity analysis of the independent and dependent variables revealed the therapeutic alliance and therapist empathy to be interrelated beyond these thresholds. To account for these findings, additional regression models were identified to separate these variables from each other:

Model 3: \( \text{Client Engagement} = \text{Therapeutic alliance} + \text{Perceived coercion} \)

Model 4: \( \text{Client Engagement} = \text{Therapeutic alliance} + \text{Perceived coercion} + \text{Symptom severity} + \text{Co-occurring substance use} + \text{Education level} + \text{Age} + \text{Duration of time working with current therapist} \)

Model 5: \( \text{Client Engagement} = \text{Therapist empathy} + \text{Perceived coercion} \)

Model 6: \( \text{Client Engagement} = \text{Therapist empathy} + \text{Perceived coercion} + \text{Symptom severity} + \text{Co-occurring substance use} + \text{Education level} + \text{Age} + \text{Duration of time working with current therapist} \)

**Protection of Human Subjects**

Standard measures were taken to ensure autonomy, safety, and minimization of risk for study participants. Study participants completed the web-based survey anonymously, therefore mitigating any risk associated with collecting personal information. However, participants did have the option to include their name and contact information if they were interested in being involved in follow-up conversations conducted by the researcher. When data was extracted from the web-based survey
management system, personal information was collected and compiled separately, delinked from other responses.

The option to consent to participate in the study was presented at the beginning of the study following the eligibility criteria questions (see Appendix D for informed consent document). In this form, the general purpose of the study – to explore the impact of the therapeutic alliance, therapist empathy, and perceived coercion on the degree of engagement a client experiences in outpatient therapy – was explained to participants. Survey-takers were reassured that refusal to participate would not impact their ability to access services in any way and that they may discontinue the survey at any time.

Participants were also informed of the risks and benefits of participating in the study. While there were no potential benefits for individual participants, participation could contribute to the general knowledge base on engagement in therapy. The risks of participation were minimal given that the survey was administered anonymously, and the administration of surveys and scales is a common practice in the therapeutic context. Potential risks included experiencing distressing emotions while completing the survey, although this risk was low given that these topics are not typically associated with traumatic events nor were participants asked to reveal any embarrassing information. If a participant experienced distress when answering the survey questions, they were instructed to contact their mental health provider for follow up.

Risks of confidentiality breaches were minimal, as the only personally identifiable information collected was the voluntary submission of names and contact information to be eligible to receive an incentive and for follow-up conversations. This information was
extracted and maintained separately and delinked from other survey responses. To minimize the risk of a breach in confidentiality, client names and contact information provided voluntarily for these purposes was maintained in a password-protected computer document. The researcher had primary access to the data collected. However, the IRB at the University of Pennsylvania had access to data collected as members of the research committee. The potential benefit of participation – contributing to the knowledge base and potentially improving the therapeutic experience for future clients – was determined to be greater than the risk in this study. Any data from this study will only be presented in aggregate form and will not contain any identifiable information.
CHAPTER 3: RESULTS

Description of Sample

The 131 survey completers were located across 33 states (see Appendix F for breakdown by state); 59 (45%) identified as male, 67 (51.1%) identified as female, 3 (2.3%) identified as transgender, and 2 (1.5%) identified as other; 1 (0.8%) identified as American Indian or Alaska Native, 7 (5.3%) identified as Asian, 12 (9.2%) identified as Black or African American, 2 (1.5%) identified as Native Hawaiian or Pacific Islander, 103 (78.6%) identified as White, and 6 (4.6%) identified as Multiracial; and 5 (3.8%) identified as Latino or Hispanic.

For age, participants selected from a drop-down menu. From the completed responses (N=129), the youngest age was 22, the oldest age was 68, with a mean age of 38.28 years, a median age of 37 years, and a standard deviation of 9.67 years. For education, participants selected from 9 responses ranging from 8th grade or below to having obtained a graduate degree with the following distribution of data: 13 (9.9%) selected 12th grade or GED, 33 (25.2%) selected some college, 60 (45.8%) indicated having earned an undergraduate degree, and 25 (19.1%) indicated having earned a graduate degree. In order to include this variable in the multivariate analysis, level of education was converted to a continuous variable with a range from 5-8, a mean score of 6.74 and a standard deviation of 0.88. See Table 1 for a summary of sample characteristics.
<table>
<thead>
<tr>
<th>Recruitment Source</th>
<th>Mean (SD)</th>
<th>N</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
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<td>67.9</td>
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</tr>
<tr>
<td>Support or Advocacy Group</td>
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<td>18.3</td>
<td></td>
</tr>
<tr>
<td>Mental Health Provider</td>
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<td>7.6</td>
<td></td>
</tr>
<tr>
<td>Facebook or Twitter</td>
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<table>
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</tr>
<tr>
<td>Female</td>
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<tr>
<td>Transgender</td>
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<td></td>
</tr>
<tr>
<td>Other</td>
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<td></td>
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</tbody>
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| Age                                      | 38.28 (9.67) |     |         |

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<tbody>
<tr>
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<td>5.3</td>
<td></td>
</tr>
<tr>
<td>Black/African American</td>
<td>12</td>
<td>9.2</td>
<td></td>
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<tr>
<td>Native Hawaiian/Pacific Islander</td>
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<td>1.5</td>
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<td>White</td>
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<td>78.6</td>
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</tr>
<tr>
<td>Multiracial</td>
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<table>
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<tr>
<th>Hispanic or Latino Ethnicity</th>
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<tr>
<td>Non-Hispanic/Latino</td>
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<table>
<thead>
<tr>
<th>Education</th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>12th Grade or GED</td>
<td>13</td>
<td>9.9</td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>33</td>
<td>25.2</td>
<td></td>
</tr>
<tr>
<td>Undergraduate Degree</td>
<td>60</td>
<td>45.8</td>
<td></td>
</tr>
<tr>
<td>Graduate Degree</td>
<td>25</td>
<td>19.1</td>
<td></td>
</tr>
</tbody>
</table>
**Diagnosis, Impairment, and Symptom Severity**

Participants \((N=131)\) selected one or more of the following qualifying diagnoses: 7 (5.3%) schizophrenia, 6 (4.6%) schizoaffective disorder, 1 (0.8%) delusional disorder, 20 (15.3%) bipolar I disorder, 14 (10.7%) bipolar II disorder, 76 (58%) major depressive disorder, 44 (33.6%) posttraumatic stress disorder, and 13 (9.9%) borderline personality disorder. Thirty-seven (28.2%) reported more than one qualifying diagnosis. Other diagnoses reported included 35 (26.7%) generalized anxiety disorder, 6 (4.6%) attention deficit hyperactivity disorder, 4 (3.1%) panic disorder, 4 (3.1%) substance use disorder, 4 (3.1%) feeding and eating disorders, 4 (3.1%) social phobia, 3 (2.3%) agoraphobia, 2 (1.5%) obsessive compulsive disorder, 2 (1.5%) autism spectrum disorder, 2 (1.5%) avoidant personality disorder, and 1 (0.8%) of each of the following: dissociative disorder, psychosis, antisocial personality disorder, communication disorder, seasonal affective disorder, and premenstrual dysphoric disorder. Of the 131 participants, 42 (32.1%) answered “yes” to at least two indicators on the CAGE-AID, which is considered to predict a high likelihood of a substance use disorder (Ewing, 1984).

For areas of significant impairment, 124 (94.7%) reported impairment to the ability to maintain social, romantic, or family relationships; 85 (64.9%) reported impairment to maintaining full-time employment, 23 (17.6%) of whom reported receiving Social Security as a result of a mental health disability; 67 (51.1%) reported difficulty completing daily living activities, like cooking, bathing, cleaning, and keeping living area in order; and 39 (29.8%) reported struggling to meet basic needs for food, housing, and/or safety. Of the 131 participants, and out of these 4 areas of impairment,
23 (17.6%) reported impairment in 1 area, 46 (35.1%) reported impairment in 2 areas, 44 (33.6%) reported impairment in 3 areas, and 18 (13.7%) reported impairment in all 4 areas.

The nature and intensity of symptoms experienced was gleaned from responses to the MCSI. Participant responses to items on this measure indicated that, at least once during the month preceding survey completion, 100 (76.3%) reported feeling their behavior or actions were strange or different from that of other people; 97 (74%) reported racing thoughts; 68 (51.9%) reported feeling suspicious or paranoid, 52 (39.7%) reported feeling like killing or hurting themselves; 42 (32.1%) reported hearing voices or hearing or seeing things other people don’t see; and 33 (25.2%) reported feeling like seriously hurting someone else. See Table 2 for summary of diagnoses, impairment, and symptom type frequency.

<table>
<thead>
<tr>
<th>Table 2 – Diagnosis, Impairment, and Symptom Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Mental Health Diagnosis</td>
</tr>
<tr>
<td>Schizophrenia</td>
</tr>
<tr>
<td>Schizoaffective Disorder</td>
</tr>
<tr>
<td>Delusional Disorder</td>
</tr>
<tr>
<td>Bipolar I Disorder</td>
</tr>
<tr>
<td>Bipolar II Disorder</td>
</tr>
<tr>
<td>Major Depressive Disorder</td>
</tr>
<tr>
<td>Posttraumatic Stress Disorder</td>
</tr>
<tr>
<td>Borderline Personality Disorder</td>
</tr>
<tr>
<td>More than One</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Diagnoses</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalized Anxiety Disorder</td>
<td>35</td>
<td>26.7</td>
</tr>
<tr>
<td>Attention Deficit Hyperactivity Disorder</td>
<td>6</td>
<td>4.6</td>
</tr>
<tr>
<td>Panic Disorder</td>
<td>4</td>
<td>3.1</td>
</tr>
</tbody>
</table>
Substance Use Disorder 4 3.1
Feeding and Eating Disorders 4 3.1
Social Phobia 3 3.1
Agoraphobia 3 2.3
Obsessive Compulsive Disorder 2 1.5
Autism Spectrum Disorder 2 1.5
Avoidant Personality Disorder 2 1.5
Other 6 4.6

Significant Functional Impairment
Social, Romantic, or Family Relationships 124 94.7
Employment 85 64.9
Daily Living Activities 67 51.1
Basic Needs (Food, Housing, Safety) 39 29.8
3 or More Areas 62 47.3

Symptoms Experienced at Least Once in Last Month
Actions Strange or Different than Others 100 76.3
Racing Thoughts 97 74
Suspicious or Paranoid 68 51.9
Thoughts of Suicide or Self-Harm 52 39.7
Auditory or Visual Hallucinations 42 32.2
Thoughts of Harming Others 33 25.2

Treatment History and Reason for Initiating Therapy Services
For current services received, 131 (100%) selected outpatient therapy (note: 5 of these either indicated therapy service in “other” category or confirmed current participation in outpatient therapy in communication with the researcher); 9 (6.9%) case management, 70 (53.4%) medication management, 4 (3.1%) day treatment or drop-in-center, and 1 (0.8%) crisis services. One (0.8%) participant entered each of the following
into the “other” textbox: EMDR, intensive outpatient treatment, peer support, personalized recovery-oriented services, rehab, and self-help support groups.

For services previously received, 120 (91.6%) selected outpatient therapy, 32 (24.4%) case management, 92 (70.2%) medication management, 19 (14.5%) day treatment or drop in center, 7 (5.3%) lived in a mental health group home, 27 (20.6%) crisis services, 1 (0.8%) ACT/PACT, and 43 (32.8%) inpatient psychiatric hospitalization. Two (1.5%) entered peer support into the “other” textbox and 1 (0.8%) participant entered each of the following into the “other” textbox: inpatient substance abuse treatment, personalized recovery-oriented services, and self-help support group. Participants (N=130) reported receiving mental health services for a duration of time ranging from less than 1 year to more than 40 years, with a mean of 9.14 years, a median of 6 years, and standard deviation of 9.07 years.

Participants reported the following related to how they began working with their current therapist: 73 (55.7%) started services on their own, 2 (1.5%) were referred by the legal system, 20 (15.3%) were pressured by friends or family, 30 (22.9%) were referred by a different provider, 4 (3.1%) were referred by an inpatient psychiatric hospital as part of aftercare, and 2 (1.5%) were referred by a primary care doctor. Participants (N=130) reported working with their current therapist ranging from less than 1 year to more than 30 years, with a mean of 3.46 years, a median of 2 years, and standard deviation of 3.85 years. See Table 3 for summary of treatment history, time with therapist, time in treatment, and reason for beginning services.
Table 3 – Treatment Utilization, Time with Therapist, Reason for Therapy

<table>
<thead>
<tr>
<th>Current Services Received</th>
<th>Mean (SD) / Median</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient Therapy</td>
<td>131</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Medication Management</td>
<td>70</td>
<td>53.4</td>
<td></td>
</tr>
<tr>
<td>Case Management</td>
<td>9</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>Day Treatment or Drop-In Center</td>
<td>4</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Crisis Services</td>
<td>1</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>4.6</td>
<td></td>
</tr>
</tbody>
</table>

| Services Received in the Past                   |                    |     |         |
| Outpatient Therapy                              | 120                | 96.2|         |
| Medication Management                           | 92                 | 70.2|         |
| Inpatient Psychiatric Hospitalization           | 43                 | 32.8|         |
| Case Management                                 | 32                 | 24.4|         |
| Crisis Services                                 | 27                 | 20.6|         |
| Day Treatment or Drop-In Center                 | 19                 | 14.5|         |
| Mental Health Group Home                        | 7                  | 5.3 |         |
| Assertive Community Treatment                   | 1                  | 0.8 |         |
| Other                                           | 5                  | 3.8 |         |

| Reason for Initiating Current Therapeutic Relationship |        |     |         |
| Started Services on Own                          | 73      | 55.7|         |
| Referred by a Different Provider                 | 30      | 22.9|         |
| Pressured by Family or Friends                   | 20      | 15.3|         |
| Aftercare after Inpatient Hospitalization        | 4       | 3.1 |         |
| Referred by Primary Care Doctor                  | 2       | 1.5 |         |

| Total Time in Treatment (Years)                  | 9.13 (9.07) / 6   |     |         |
| Time with Current Therapist (Years)              | 3.46 (3.85) / 2   |     |         |

Scores for Scales and Measures of the Study Variables

See Table 4 at the end of this section for distribution data for all scores.
Client engagement scale. The Client Engagement Scale, as utilized in this study, consisted of 11 questions rated on a 5-point Likert scale. A client engagement score ranging from 11-55 was calculated for this scale – the higher the score, the stronger the level of engagement. From the completed scales (N=125), the lowest score was 26 and the highest score was 55, with a mean score of 43.47 and standard deviation of 5.13.

Working alliance inventory – short form. The Working Alliance Inventory – Short Form (WAI-S), as utilized in this study, consisted of 12 statements rated on a 7-point Likert scale. A therapeutic alliance score ranging from 12-84 was calculated for this scale – the higher the score, the stronger the therapeutic alliance. From the completed scales (N=123), the lowest score was 35 and the highest score was 84, with a mean score of 64.93 and standard deviation of 11.06.

Empathy subscale of the Barrett-Lennard relationship inventory (BLRI). The empathy subscale of the Barrett-Lennard Relationship Inventory (BLRI), as utilized in this study, consisted of 12 empathy-related statements nested in 24 statements rated on a 6-point Likert scale. A therapist empathy score ranging from 12-72 was calculated for this scale – the higher the score, the more empathetic the therapist is perceived as being. From the completed scales (N=126), the lowest score was 13 and the highest score was 72, with a mean score of 54.89 and standard deviation of 12.09.

Perceived coercion scale. The Perceived Coercion Scale, as utilized in this study, consisted of 9 statements rated on a 5-point Likert scale. A perceived coercion score ranging from 9-45 was calculated for this scale – the higher the score, the less
coercion perceived. From the completed scales ($N=128$), the lowest score was 15 and the highest score was 45, with a mean score of 36.99 and standard deviation of 5.77.

**Modified Colorado symptom index.** The Modified Colorado Symptom Index (MCSI), as utilized in this study, consisted of 14 questions with answers rated on a 5-point Likert scale. A symptom score ranging from 0-56 was calculated for this scale – the higher the score, the greater amount and frequency of symptoms experienced. From the completed scales ($N=126$), the lowest score was 0 and the highest score was 45, with a mean score of 22.13 and standard deviation of 9.17.

**CAGE-AID.** The CAGE-AID, as utilized in this study, consisted of 4 questions with yes or no responses. A potential substance use disorder score ranging from 0-4 was calculated for this scale. A response of at least 2 positive answers is the clinical threshold for predicting a substance use disorder. From the completed scales ($N=128$), the lowest score was 0 and the highest score was 4, with a mean score of 1.02 and standard deviation of 1.48.

**Time with therapist.** Time with Therapist was measured in years. From the completed responses ($N=130$), the shortest amount of time working with the therapist was less than 1 year and the longest amount of time was more than 30 years, with a median score of 2 years, mean score of 3.46 years, and standard deviation of 3.85 years. It is notable that 96 (71%) participants had been working with their therapist for 3 years or less.
Table 4 – Scores for Scales and Measures of other Study Variables

<table>
<thead>
<tr>
<th>Measure</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
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<tr>
<td>Client Engagement Scale</td>
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<td>55</td>
<td>43.47</td>
<td>5.13</td>
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<td>Working Alliance Inventory - Short Form</td>
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<td>84</td>
<td>64.93</td>
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</tr>
<tr>
<td>Therapist Empathy Subscale of BLRI</td>
<td>126</td>
<td>13</td>
<td>72</td>
<td>54.89</td>
<td>12.09</td>
</tr>
<tr>
<td>Perceived Coercion Scale</td>
<td>128</td>
<td>15</td>
<td>45</td>
<td>36.99</td>
<td>5.77</td>
</tr>
<tr>
<td>Modified Colorado Symptom Index</td>
<td>126</td>
<td>0</td>
<td>45</td>
<td>22.13</td>
<td>9.17</td>
</tr>
<tr>
<td>CAGE-AID</td>
<td>128</td>
<td>0</td>
<td>4</td>
<td>1.02</td>
<td>1.48</td>
</tr>
<tr>
<td>Time with Therapist</td>
<td>130</td>
<td>1</td>
<td>23</td>
<td>3.46</td>
<td>3.85</td>
</tr>
<tr>
<td>Education</td>
<td>131</td>
<td>5</td>
<td>8</td>
<td>6.74</td>
<td>0.88</td>
</tr>
<tr>
<td>Age</td>
<td>129</td>
<td>22</td>
<td>68</td>
<td>38.28</td>
<td>9.67</td>
</tr>
</tbody>
</table>

**Hypothesis Testing**

Multiple regression analysis was used to test multiple models: the first model included the dependent variable and independent variables, and a second model included the dependent variables, independent variables, and control variables. See Table 5 for results of these first 2 models.
As shown in Table 5, the combination of all independent variables in the first model explained 62% of the variance in client engagement [$R^2=0.62$, $F (3, 105) = 57.39$, $p<0.01$]. In this model, the therapeutic alliance predicted the biggest change in client engagement, with a 1-point increase in client engagement with every 3-point increase in therapeutic alliance ($B=0.38$, $p<0.01$). Perceived coercion predicted a significant change in client engagement, with a 1-point increase in client engagement with every 5-point increase in perceived coercion ($B=-0.18$, $p<0.05$) given that for perceived coercion, the lower the score, the more coercion experienced. Therapist empathy did not predict a significant change in client engagement in this model ($B=0.07$). Comparing the
standardized estimates for this model, the therapeutic relationship ($\beta=0.78$) predicted the biggest change in client engagement.

While the combination of all independent variables in the second model explained 63% of the variance in client engagement [$R^2=0.63$, $F(8, 100) = 21.21, p<0.01$], the change in $R^2$ between model 1 and model 2 was not significant [$\Delta R^2=0.01$, $F(5, 100) = 0.43$]. In this model, the therapeutic alliance predicted the biggest change in client engagement, with a 1-point increase in client engagement with every 3-point increase in therapeutic alliance ($B=0.37, p<0.01$). Perceived coercion no longer predicted a significant change in client engagement ($B=-0.16$). As in model 1, therapist empathy did not predict a significant change in client engagement in model 2 ($B=0.09$). Comparing the standardized estimates for this model, the therapeutic relationship ($\beta=0.77$) predicted the biggest change in client engagement.

Given the conceptual overlap of the study variables, an analysis was conducted to determine the potential for multicollinearity, which could substantially impact the stability of findings for the first two models. This analysis included a test for Pearson’s correlation coefficients and variance inflation factors (VIF). The cutoff for Pearson’s correlation coefficients was 0.80 and the VIF cutoff was 2.5. See Tables 6 and 7 for multicollinearity findings.
Table 6 – Multicollinearity Analysis: Pearson Correlation Coefficients

<table>
<thead>
<tr>
<th>Client Engagement</th>
<th></th>
<th>Therapeutic Alliance</th>
<th>Therapist Empathy</th>
<th>Perceived Coercion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.753**</td>
<td>.625**</td>
<td>.507**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>125.00</td>
<td>119.00</td>
<td>123.00</td>
<td>123.00</td>
</tr>
<tr>
<td>Therapeutic Alliance</td>
<td>.753**</td>
<td>1</td>
<td>.817**</td>
<td>.708**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>119</td>
<td>123</td>
<td>120.00</td>
<td>121.00</td>
</tr>
<tr>
<td>Therapist Empathy</td>
<td>.625**</td>
<td>.817**</td>
<td>1</td>
<td>.736**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0</td>
<td>0</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>123</td>
<td>120.00</td>
<td>126.00</td>
<td>124.00</td>
</tr>
<tr>
<td>Perceived Coercion</td>
<td>.507**</td>
<td>.708**</td>
<td>.736**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>N</td>
<td>123</td>
<td>121</td>
<td>124</td>
<td>128</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

Table 7 – Multicollinearity Analysis: Variation Inflation Factors

<table>
<thead>
<tr>
<th>(Constant)</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>Therapeutic Alliance</td>
<td>0.349</td>
<td>0.051</td>
<td>0.753</td>
</tr>
<tr>
<td>Therapist Empathy</td>
<td>0.027</td>
<td>0.049</td>
<td>0.064</td>
</tr>
<tr>
<td>Perceived Coercion</td>
<td>-0.065</td>
<td>0.083</td>
<td>-0.073</td>
</tr>
</tbody>
</table>

Dependent Variable: Client Engagement
The Pearson’s correlation coefficient score of 0.817 assessed the relationship between the therapeutic alliance measure and therapist empathy measure suggesting that the interrelatedness of these two variables carry the potential for destabilizing the regression analysis findings in the first two models. The VIF of 3.243 for the therapeutic alliance and 3.53 for therapist empathy further support this conclusion. As a result, additional models were tested in order to separate these variables from each other in subsequent regression analyses. The first 2 additional models tested the relationship between two of the three independent variables (the therapeutic alliance and perceived coercion) and the dependent variable (client engagement) with and without the control variables. See Table 8 for the results of these two models.

**Table 8 – Hierarchical Regression Analysis of Client Engagement with Therapeutic Alliance and Perceived Coercion**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>21.26</td>
<td>2.13</td>
<td>18.39</td>
<td>3.91</td>
</tr>
<tr>
<td>Therapeutic Alliance</td>
<td>0.43*</td>
<td>0.04</td>
<td>0.43*</td>
<td>0.05</td>
</tr>
<tr>
<td>Perceived Coercion</td>
<td>-0.13</td>
<td>0.08</td>
<td>-0.11</td>
<td>0.08</td>
</tr>
<tr>
<td>Age</td>
<td>-0.01</td>
<td>0.04</td>
<td>-0.02</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.06</td>
<td>0.38</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Time with Therapist</td>
<td>0.00</td>
<td>0.09</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Symptom Score</td>
<td>0.04</td>
<td>0.04</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Potential Substance Abuse</td>
<td>0.02</td>
<td>0.23</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>0.61</td>
<td></td>
<td>0.62</td>
<td></td>
</tr>
<tr>
<td>F-Value</td>
<td>F (2, 107)=84.51*</td>
<td></td>
<td>F (7, 102)=23.52*</td>
<td></td>
</tr>
<tr>
<td>ΔR2</td>
<td>0.01</td>
<td></td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>F-Value</td>
<td>F (5, 102)=0.27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<0.01
As shown in Table 8, the combination of the therapeutic alliance and perceived coercion in the first model explained 61% of the variance in client engagement [$R^2=0.61$, $F(2, 107) = 84.51, p<0.01$]. In this model, the therapeutic alliance predicted the biggest change in client engagement, with a 1-point increase in client engagement with every 2.5-point increase in therapeutic alliance ($B=0.43, p<0.01$). Perceived coercion did not predict a significant change in client engagement in this model ($B=-0.13$). Comparing the standardized estimates for this model, the therapeutic relationship ($\beta=0.88$) predicted the biggest change in client engagement.

While the combination of all independent variables in the second model explained 62% of the variance in client engagement [$R^2=0.62$, $F(7, 102) = 23.52, p<0.01$], the change in $R^2$ between model 1 and model 2 was not significant [$\Delta R^2=0.01$, $F(5, 102) = 0.27$]. In this model, the therapeutic alliance predicted the biggest change in client engagement, with a 1-point increase in client engagement with every 2.5-point increase in therapeutic alliance ($B=0.43, p<0.01$). Perceived coercion did not predict a significant change in client engagement in this model ($B=-0.11$). Comparing the standardized estimates for this model, the therapeutic relationship ($\beta=0.88$) predicted the biggest change in client engagement.

While these two models reflect the removal of therapist empathy from the analysis due to its multicollinearity with the therapeutic relationships, the final two models include therapist empathy while excluding the therapeutic relationship. See Table 9 for the results of these two models.
As shown in Table 9, the combination of therapist empathy and perceived coercion in the first model explained 43% of the variance in client engagement \([R^2=0.43, F (2, 111)=41.72, p<0.01]\). In this model, therapist empathy predicted the biggest change in client engagement, with a 1-point increase in client engagement with every 4-point increase in therapist empathy \((B=0.27, p<0.01)\). Perceived coercion did not predict a significant change in client engagement in this model \((B=-0.05)\). Comparing the standardized estimates for this model, therapist empathy \((\beta=0.61)\) predicted the biggest change in client engagement.

While the combination of all independent variables in the second model explained 45% of the variance in client engagement \([R^2=0.45, F (7, 106)=12.31, p<0.01]\), the
change in $R^2$ between model 1 and model 2 was not significant [$\Delta R^2 = 0.02$, F (5, 106) = 0.74]. In this model, therapist empathy predicted the biggest change in client engagement, with a 1-point increase in client engagement with every 4-point increase in therapeutic alliance ($B=0.25$, $p<0.01$). Perceived coercion did not predict a significant change in client engagement in this model ($B=0.05$). Comparing the standardized estimates for this model, therapist empathy ($\beta=0.59$) predicted the biggest change in client engagement.

Due to the significant potential for regression data in the first 2 models to be invalid as a result of multicollinearity, the study’s hypothesis was tested using the subsequent latter models that isolated the interrelated variables of the therapeutic alliance and therapist empathy. The study’s hypothesis was partially supported. In these separate regression analyses, the therapeutic alliance and therapist empathy were both found to be significant predictors of client engagement. Perceived coercion was not found to be a significant predictor of client engagement across models. These findings were sustained after the addition of all control variables. None of the control variables stood out as unique predictors of client engagement in this hierarchical regression analysis.
CHAPTER 4: DISCUSSION AND IMPLICATIONS

This study explored the relationship between the therapeutic alliance, therapist empathy, perceived coercion and client engagement in outpatient therapy for individuals with serious mental health conditions. Analysis of the initial regression data revealed potential multicollinearity between the therapeutic alliance and therapist empathy. Multicollinearity carries the potential for findings to appear inflated or otherwise misrepresented (Morrow-Howell, 1994; Thompson et al., 2017). Due to the multicollinearity evident in the initial regression analysis models that included all variables, the therapeutic alliance and therapist empathy required analysis separate from each other in order to yield more valid results. Findings of these subsequent models suggest that both the therapeutic alliance and therapist empathy are significant predictors of variation in client engagement, and remained significant after controlling for age, education level, time with therapist, symptom severity, and potential co-occurring substance use problem. Perceived coercion was not found to be a predictor of variation in client engagement across these four models. Participant age, education level, symptom severity, likelihood of co-occurring substance use disorder, and time working with current therapist were not found to be unique predictors of change in client engagement in any of the study’s regression models.

Of all the independent variables, the therapeutic alliance was the most salient predictor of client engagement in outpatient therapy for individuals with serious mental health conditions and was the largest contributor to the 62% explained variance of the model that included perceived coercion and the control variables in analysis. The
therapeutic alliance is well established as a positive predictor of engagement in treatment for individuals with serious mental health conditions in a variety of other contexts (Fakhoury et al., 2007; Farrelly et al., 2014; Frank & Gunderson, 1990; Gehrs & Goering, 1994; McCabe et al., 2012; Melau et al., 2015; Priebe et al., 2011). The results of this study suggest that the findings of previous research on the impact of the therapeutic alliance for individuals with serious mental health conditions on engagement in treatment is also applicable to the outpatient therapy context.

The therapeutic alliance is often seen as more important than any other factor in engaging someone in mental health services. This was supported in the current study, as the strong predictive power of the therapeutic alliance was sustained after accounting for symptom severity, co-occurring substance use, age, education level, and how long someone has been working with a therapist. The relationship between the therapeutic alliance and client engagement consistent across models supports the position that strengthening the therapeutic alliance is likely to significantly increase engagement in outpatient therapy for individuals with serious mental health conditions. These findings also support the conceptualization of the therapeutic alliance as a prerequisite for therapeutic work to occur (Hatcher & Barends, 2006). The power of the therapeutic alliance is also reflected in the importance of developing a collaborative and supportive relationship when practicing from a recovery orientation (Atterbury, 2014).

While to a lesser degree than the therapeutic relationship, therapist empathy was also a significant predictor of client engagement in outpatient therapy for individuals with serious mental health conditions and was the largest contributor to the 41% explained
variance of the model that included perceived coercion and the control variables in analysis. This is aligned with the wealth of research spanning generations that support its importance in mental health treatment (Elkin et al., 2014; Kurtz & Grummon, 1972; Luborsky et al., 1971; Moyers & Miller, 2013).

Perceived coercion was not found to be a strong predictor of variation in client engagement after revising regression models to separate the therapeutic alliance and therapist empathy. While coercive practices run counter to the recovery movement in mental health care and are generally believed to discolor the client’s perception of treatment, the ability of previous research to isolate a consistently negative relationship between coercion and engagement has been challenging (Luciano et al., 2014). Coercion has been recognized as a deterrent to seeking services and as contributing to a negative perception of treatment for individuals with serious mental health conditions (Stanhope et al., 2009; Swartz et al., 2003), but its direct relationship with engagement in treatment is not consistently supported. The results of this study are consistent with the challenges experienced by previous researchers when isolating coercion to assess its contribution as a predictor of client engagement.

There are multiple factors that may contribute to this study’s inability to isolate perceived coercion as a predictor of change in client engagement. One possible explanation for this can be found in the distribution of data for perceived coercion. This measure reflected a moderate level of skewness, with a high proportion of participants reporting low degrees of coercion experienced. This could be due, in part, to the characteristics of the study sample. It is possible that individuals with serious mental
health conditions who actively participate in a research study on engagement in treatment share a higher degree of choice in determining what their treatment looks like. This is consistent with Angell’s (2006) findings that, when treated through less intensive outpatient services, this population experiences a lower degree of coercion than when treated through more intensive services like assertive community treatment. The skewness of data reflects a lack of sensitivity in the measure detecting variation in coercion experienced in this less intensive treatment context.

All variables, except the therapeutic alliance, similarly reflected skewed data distributions, ranging from moderate to high. The distribution of data for these variables reflect the impact of potential sample characteristics on scale scores or the lack of sensitivity of these measures in determining variation in the constructs being measured. Given the relationship between the therapeutic alliance, therapist empathy, perceived coercion, and client engagement established through conceptual and empirical literature, it may be that existing measures of these variables are not sensitive enough to detect variation between them for individuals with serious mental health conditions who are able to manage their conditions through outpatient therapy. An example of this can be found in the inability of the model to isolate the unique contributions of coercion to engagement. While the perceived coercion measure may be sensitive enough to isolate the experience of coercion in the context of more restrictive and intensive levels of care, it falls short of doing so in outpatient therapy for this population. Recognizing the potential for more variation in pressure or coercion experienced by individuals with serious mental health conditions in less restrictive contexts, Angell (2006) developed a
coercion instrument to detect a broader range of coercive practices in the context of medication adherence, supporting the need to continue identifying elements of coercion and pressure specific to the outpatient therapy context.

There are several interesting findings related to treatment utilization. This study found that, when compared to services participants received at the time of survey completion, historical treatment utilization was far more restrictive and intensive. One-third of participants reported previous inpatient psychiatric hospitalization. Half of participants reported current medication management services compared to over two-thirds receiving this service in the past. Two-thirds fewer participants currently receive case management compared to historical utilization. A fifth of participants have received crisis services in the past, compared to just one participant at the time of the survey. Day treatment and group home services reflect similar patterns of reduction in utilization. These patterns of treatment utilization suggest that individuals with serious mental health conditions who often begin treatment at a more intensive level of services progress to less intensive and restrictive services like outpatient therapy. This is consistent with the goal of the recovery movement to allow more client choice in treatments utilized while managing mental health symptoms effectively through less restrictive services.

It was initially thought that the lower intensity of treatments utilized by participants at the time they completed the survey might be associated with lower levels of symptom severity and functional impairment. While it is impossible within the scope of this study to clearly understand the change in symptom severity and impairment that occurs for this population over time, participants reported a relatively high level of
symptom severity at the time of survey completion. As for symptoms experienced in the month preceding survey completion, nearly one-third reported auditory or visual hallucinations at least once, over half reported feeling suspicious or paranoid, and nearly half reported thoughts of hurting themselves or others.

Participants also reported high rates of significant impairment in the four categories assessed: social and family relationship, ability to maintain full-time employment, challenges completing daily living activities, and difficulty meeting basic needs. Nearly half of participants reported at least 3 areas of significant impairment. However, participants also reflect a low level of official disability designation and a high level of education. Less than one-fifth of participants reported receiving Social Security due to a mental health disability. All participants reported completing high school or earning a GED, while nearly two-thirds of participants reported earning a college degree. There are multiple possible explanations for these findings.

It is possible that the indicators we currently use to differentiate serious mental health conditions from other mental health conditions are broad and inclusive, resulting in a range of individuals who qualify as having a serious mental health condition. There were many diagnoses included in this study and the reported level of impairment was the primary qualifier to be considered as having a serious mental health condition and included in this study. Recognizing that the symptom and impairment experiences of individuals with serious mental health conditions exist on an expansive continuum, it may be that this study recruited a subset of this larger population – individuals with varying levels of experience and impairment, but otherwise able to decrease their
intensity of services over time and effectively treat their conditions through outpatient services.

These relationships may also be evidence of the influence of the recovery movement over the past several decades. Individuals might be feeling more empowered to guide their treatment, more capable of managing their mental health conditions through less intensive services, and more autonomous in making decisions about what their treatment looks like. While this hypothesis is untested in the current study, it is important to consider as we strive to implement recovery-oriented treatments to more effectively engage individuals with serious mental health conditions in treatment.

**Implications for Social work**

The social work profession is charged with improving the well-being of and empowering those in society who are most vulnerable and oppressed (National Association of Social Workers [NASW], 2017). Social workers achieve this goal by recognizing the worth of each person, valuing a person’s right to self-determination, and engaging every person as an active participant in the treatment process (NASW, 2017). These values and principles are well-aligned with the recovery movement’s focus on instilling hope, increasing choice, and empowering the individual to define recovery in their terms. As social workers, we are uniquely positioned to utilize the therapeutic relationship to guide individuals along their recovery journey.

Unfortunately, treatments for individuals with serious mental health conditions are frequently coercive (Solomon, 1996) and run antithetical to the values of social work and the recovery movement. Even the best-intentioned social workers can focus more on
the evidenced-based practice they are implementing than the strength of the therapeutic relationship they are establishing. Existing research sufficiently supports the strength of the therapeutic alliance in achieving positive outcomes in therapy regardless of treatment modality (Martin et al., 2000). The current study uniquely contributes to the literature by demonstrating a predictive relationship between the therapeutic alliance and variation in client engagement in outpatient therapy for individuals with serious mental health conditions. A greater degree of therapist empathy was similarly found to be associated with increased client engagement. Social workers are frequently the primary providers of care for individuals with serious mental health conditions, and for those working with this population in outpatient therapy, this serves as a valuable reminder to focus on the therapeutic relationship and quality of interactions first and foremost. Beyond this, social workers will want to better understand how their contributions to the therapeutic process reflect elements of pressure, coercion, or approaching the work with predetermined goals. A more reflective practice is strongly encouraged.

In a broader sense, this study should push social workers to think differently about what recovery means and what client-driven treatment looks like. Assumptions are frequently made about the clinical necessity for a certain level of care determined by symptom severity and experienced impairment. When possible, these assumptions should be set aside; clients should be approached from the perspective that recovery is possible in every case and empowered to drive the treatment plan. The goal of treatment is to improve the client’s quality of life guided by their own determination of what their life should look like. The sooner we incorporate these recovery-orientated values into the
work we do, the better equipped we will be at engaging individuals with serious mental health conditions in treatment.

**Strengths and Limitations**

This study has several strengths. The study sample reflects a diverse range of diagnoses, experienced symptoms, and functional impairment. Additionally, the utilization of multiple recruitment methods allowed for a more diverse representation in participant opinions and experiences. Methodologically, accounting for several control variables and utilizing high quality methods for data analysis and review strengthened the study’s findings.

It is also important to recognize that the population reflected in this study may be one that is underrepresented in research. Among the continuum of severity of mental health conditions, there is a subset of individuals being treated for serious mental health conditions for whom their symptom severity and impairment are more moderate. Research on individuals with serious mental health conditions frequently is situated within the context of higher levels of care, which are regularly utilized by those with a greater degree of symptom interference in their lives. By targeting those who are managing more serious diagnoses through less intensive services, this study broadens the overall representation of diversity in mental health research.

This study also has limitations that need to be considered when contextualizing its findings. The findings of this study are not generalizable to all individuals with serious mental health conditions. Without probability sampling, there is a chance that this
study’s sample varies from the broader study population in one or more characteristics that may have influenced the results through patterns of data distribution, or in a different way unknown by the researcher. Additionally, given the correlational design of the study, the directionality of relationships between variables cannot be determined with certainty, and the challenges with multicollinearity and isolating the unique contributions of each suggest some degree of mutual causality.

There is also a lack of racial and ethnic diversity in the study’s sample. While it has been found that African American and Hispanic or Latino individuals with serious mental health conditions access outpatient therapy at disproportionately lower rates than those who are white (Substance Abuse and Mental Health Services Administration [SAMHSA], 2015), racial diversity in the current study does not reflect even these lower rates of utilization. However, geographic diversity is reflected in the current study with the 131 participants originating from 33 different states.

This study also required individuals to be savvy with technology and networking. Although technology is being increasingly utilized to connect people with shared experiences to mutual aid and treatment options, requiring this to participate in the study may have excluded a subset of the population eligible to participate. A final limitation concerns the measurement instruments utilized in the study. Many of this study’s measures reflected distributions of data skewed to the higher end, potentially an indicator that, although they are established at measuring certain concepts, they aren’t sensitive enough to measure these concepts given the unique treatment experiences and

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characteristics of the study sample. Fortunately, even though some were skewed, all instruments reflected strong internal consistency.

**Directions for Future Research**

This study expands our understanding of factors that contribute to engagement in outpatient therapy for individuals with more serious mental health conditions. This investigation is just a beginning, though. Additional research is needed to better understand how to engage this subset of the population of individuals with serious mental health conditions in outpatient therapy, including more longitudinal and qualitative research. Longitudinal research may result in a better understanding of the directionality of relationships between these concepts. Qualitative research that engages individuals with serious mental health conditions in the conceptualization of these constructs can help discern more of the nuanced experiences in outpatient therapy for these individuals.

Recognizing that the instruments used to measure this study’s variables were not sensitive enough to identify more subtle variations in these concepts, research focused on deconstructing the specific and discerning criteria associated with these variables would be particularly valuable. Existing scales in these domains primarily originated in much more restrictive settings or reflect content that is overly dichotomous. Future research would benefit from newly developed psychometrically sound scales that measure these concepts more subtly and that can be applied to a broader range of services and populations. It is time for the mental health research community to revisit how these variables are experienced, particularly considering the movement towards more community-based participatory research. This may result in an understanding that, in
addition to being conceptually sound from a research perspective, also better reflects the lived experiences of the populations served.

Additional research is warranted that is informed by this study’s findings around treatment utilization, levels of impairment, and symptom severity. The treatment level appropriate to an individual cannot be determined solely by symptom severity and interference in functioning. As demonstrated in this study, criteria currently used to identify people as having a serious mental health condition is broad and far-reaching. Future research should focus on increasing our understanding of the diverse range of lived experiences for individuals with serious mental health conditions and whether this is accurately reflected in the criteria utilized to determine level of disability and appropriateness of treatment options.

Conclusion

Individuals with serious mental health conditions experience disproportionately higher rates of disengagement from treatment. Interventions for this population are often coercive, with treatment decisions driven more by mental health providers than by clients. As more individuals with serious mental health conditions are seeking treatment through less restrictive options, like outpatient therapy, it is crucial that the treatment community better understand how to effectively engage this population in this specific context. The therapeutic alliance and quality of interactions between the client and therapist are key to this endeavor. Through developing a strong therapeutic alliance and viewing mental health recovery through a more diverse lens, practitioners will be better equipped to meet these challenges.
APPENDICES

Appendix A – Recruitment Materials for Agencies

Recruitment Flyer – Agency iPad Participation Option

Participants Needed for Research Study

If you are 18 years or older, have been diagnosed with a serious mental health condition that results in significant impairment in at least one life area (social relationships, ability to work, completing daily living activities, or meeting basic needs), and currently receive outpatient therapy, you are eligible to participate in this study. Diagnoses included in this study are:

- Schizophrenia
- Schizoaffective Disorder
- Delusional Disorder
- Schizophreniform Disorder
- Bipolar I Disorder
- Bipolar II Disorder
- Major Depressive Disorder
- Posttraumatic Stress Disorder
- Borderline Personality Disorder

The purpose of this study is to learn more about the interactions between clients and therapists that contribute to or detract from their sense of engagement in therapy. Participants will complete an anonymous 20-30-minute survey using a provided iPad or by paper if the client is unable to use the iPad technology. No data will be linked to a specific therapist. Participants who complete the survey may enter a drawing to receive one of twenty $25 Amazon gift cards.

Principal Investigator: Phyllis Solomon, PhD
Co-Investigator: Jason Mallonee, MSW LCSW

For more information, contact Jason at 808-639-3369
Participants Needed for Research Study

If you are 18 years or older, have been diagnosed with a serious mental health condition that results in significant impairment in at least one life area (social relationships, ability to work, completing daily living activities, or meeting basic needs), and currently receive outpatient therapy, you are eligible to participate in this study. Diagnoses included in this study are:

- Schizophrenia
- Schizoaffective Disorder
- Delusional Disorder
- Schizophreniform Disorder
- Bipolar I Disorder
- Bipolar II Disorder
- Major Depressive Disorder
- Posttraumatic Stress Disorder
- Borderline Personality Disorder

The purpose of this study is to learn more about the interactions between clients and therapists and how they impact engagement in therapy. If you choose to participate in this study, you can request a link to the anonymous 20-30-minute survey by emailing mallonee@upenn.edu. All participants who complete the survey can enter their name, phone number, and email address to receive a $10 Amazon gift card. Your personal information will not be connected to your survey responses. If you have any questions, please contact Jason Mallonee (Co-Investigator) at 808-639-3369 or mallonee@upenn.edu.
Appendix B – Recruitment Materials for Advocacy and Support Groups

Recruitment Flyer – Advocacy and Support Group Option to Email Request to Participate (Long Form)

Participants Needed for Research Study

If you are 18 years or older, have been diagnosed with a serious mental health condition that results in significant impairment in at least one life area (social relationships, ability to work, completing daily living activities, or meeting basic needs), and currently receive outpatient therapy, you are eligible to participate in this study. Diagnoses included in this study are:

- Schizophrenia
- Schizoaffective Disorder
- Delusional Disorder
- Schizophreniform Disorder
- Bipolar I Disorder
- Bipolar II Disorder
- Major Depressive Disorder
- Posttraumatic Stress Disorder
- Borderline Personality Disorder

The purpose of this study is to learn more about the interactions between clients and therapists and how they impact engagement in therapy. If you choose to participate in this study, you can request a link to the anonymous 20-30-minute survey by emailing mallonee@upenn.edu. All participants who complete the survey can enter their name, phone number, and email address to receive a $10 Amazon gift card. Your personal information will not be connected to your survey responses. If you have any questions, please contact Jason Mallonee (Co-Investigator) at 808-639-3369 or mallonee@upenn.edu.
Participants Needed for Research Study

If you are 18 years or older, have been diagnosed with a serious mental health condition that results in significant impairment in at least one life area (social relationships, ability to work, completing daily living activities, or meeting basic needs), and currently receive outpatient therapy, you are eligible to participate in this study. Diagnoses included in this study are:

- Schizophrenia
- Schizoaffective Disorder
- Delusional Disorder
- Schizotypal Disorder
- Bipolar I Disorder
- Bipolar II Disorder
- Major Depressive Disorder
- Posttraumatic Stress Disorder
- Borderline Personality Disorder

The purpose of this study is to learn more about the interactions between clients and therapists and how they impact engagement in therapy. If you choose to participate in this study, you can complete an anonymous 20-30-minute survey by going to the following link: Client Engagement Survey. Individuals who complete the survey may enter their name and email address to enter into a drawing to win 1 of 20 Amazon $25 gift certificates. Personal information entered will not be connected to survey responses. If you have any questions, please contact Jason Mallonee (Co-Investigator) at 808-639-3369 or mallonee@upenn.edu.
Recruitment Flyer – Advocacy and Support Group Option to Email Request to Participate (Short Form)

Are you seeing a therapist to treat a mental health condition? If so, you may qualify to participate in a study looking at client engagement in therapy. If you are interested in participating, email Jason at mallonee@upenn.edu for a link to the 20-30 minute anonymous survey. All participants who complete the anonymous 20-30-minute survey will receive a $10 Amazon gift card. If you have any questions, please contact Jason Mallonee (Co-Investigator) at 808-639-3369 or mallonee@upenn.edu.

Recruitment Flyer – Advocacy and Support Group Anonymous Link Option with Raffle (Short Form)

Are you seeing a therapist to treat a mental health condition? If so, you may qualify to participate in a study looking at client engagement in therapy. To see if you are eligible to participate in this study and to complete a 20-30-minute anonymous survey, click the following link: Client Engagement Survey. Individuals who complete the survey may enter into a drawing to win 1 of 20 Amazon $25 gift cards. If you have any questions, please contact Jason Mallonee (Co-Investigator) at 808-639-3369 or mallonee@upenn.edu.
Appendix C – Recruitment Materials for MTurk

**Title:** Survey on Client Engagement in Outpatient Therapy

**Description:** Take a 20-30-minute anonymous survey on factors that contribute to client engagement in outpatient therapy. You must be at least 18 years old, have been diagnosed with a serious mental health condition, and currently receive outpatient therapy.

**Keywords:** client engagement, outpatient therapy, psychotherapy, schizophrenia, schizoaffective disorder, delusional disorder, bipolar disorder, depression, PTSD, posttraumatic stress disorder, borderline personality disorder

**Instructions:** We are conducting an academic research study on client engagement in outpatient therapy for people with serious mental health conditions. If you are 18 years or older, have been diagnosed with a serious mental health condition that results in significant impairment in at least one life area (social relationships, ability to work, completing daily living activities, or meeting basic needs), and currently receive outpatient therapy, you are eligible to participate in this study. Diagnoses included in this study are Schizophrenia, Schizoaffective Disorder, Delusional Disorder, Schizophreniform Disorder, Bipolar I Disorder, Bipolar II Disorder, Major Depressive Disorder, Posttraumatic Stress Disorder, and Borderline Personality Disorder. The purpose of this study is to learn more about the interactions between clients and therapists and how they impact engagement in therapy. If you choose to participate in this study, you can complete an anonymous 20-30-minute survey by clicking the survey link below. If you have any questions, please contact Jason Mallonee (Co-Investigator) at 808-639-3369 or mallonee@upenn.edu.

**Please note:** Available only to people who have not taken this survey before - if you have taken this before, you will not be compensated for a duplicate entry. Collecting data only in the United States. For the completion code, look for the 4 digits at the bottom of the page asking if you'd like to be contacted for follow up conversations.

**Survey link:** [https://upenn.co1.qualtrics.com/jfe/form/SV_d05P3RyO0Eh19xX](https://upenn.co1.qualtrics.com/jfe/form/SV_d05P3RyO0Eh19xX)
Appendix D – Informed Consent to Participate Form

Title of the Research Study: The Impact of the Therapeutic Alliance and Client Perceptions of Therapist Empathy and Coercion on Engagement in Outpatient Therapy for Individuals with Severe Mental Illness

Protocol Number: 833706
Principal Investigator: Phyllis Solomon, PhD
solomonp@upenn.edu
(215) 898-5533

Co-Investigator: Jason Mallonee, MSW, LCSW
mallonee@upenn.edu
(808) 639-3369

You are being asked to take part in a research study. Your participation is voluntary, which means you can choose whether or not to participate. If you decide to participate or not to participate there will be no loss of benefits to which you are otherwise entitled. Before you make a decision, you will need to know the purpose of the study, the possible risks and benefits of being in the study and what you will have to do if you decide to participate.

What is the purpose of the study?
The purpose of the study is to learn more about the interactions between clients and therapists that contribute to or detract from engagement in outpatient therapy for individuals with serious mental illness. This study is being conducted in part to fulfill the dissertation requirements for a doctorate in clinical social work degree from the University of Pennsylvania.

Why was I asked to participate in the study?
You are being asked to join this study because you are an adult (18 and over) enrolled in outpatient therapy with one or more of the following diagnoses: schizophrenia, schizoaffective disorder, delusional disorder, schizophreniform disorder, bipolar I disorder, bipolar II disorder, major depressive disorder, posttraumatic stress disorder, and borderline personality disorder. Your mental illness results in a significant impairment in at least one life area (social relationships, ability to work, completing daily living activities, and meeting basic needs).

How long will I be in the study and how many people will be in this study?
This one-time survey will take you approximately 20-30 minutes to complete. Approximately 127 participants will be surveyed.

What will I be asked to do?
First, you will be asked to provide some demographic information and information related to the type of services you have received and are receiving. You will then be asked to answer questions related to client engagement, the therapeutic alliance, therapist empathy, and perceived coercion as they relate to your relationship with your therapist or service provider. Then, you will be asked to answer questions related to your experience with medication, alcohol and other drug use, and your mental health symptoms. Finally, you will have an opportunity to provide a written response related to your sense of engagement in therapy.

Data will be de-identified and could be stored and distributed for future research studies without additional informed consent.

You have the right to drop out of the research study at any time during your participation. If you decide to leave the study, your name and contact information will be destroyed. Partially completed survey data will be retained and remain delinked from any personally identifiable information, including your name and contact information.

**What are the risks?**
The risks of this study are minimal given that these topics are not typically associated with traumatic events nor are you being asked to share any embarrassing information. You may experience some distress when answering these questions. If this happens, you should contact your mental health provider for follow up.

**How will I benefit from the study?**
There is no direct benefit to you. However, your participation could help us better understand factors that contribute to engagement in outpatient therapy, which can benefit you indirectly. In the future, this may help other people to engage more effectively in outpatient therapy.

**How will confidentiality be maintained, and my privacy be protected?**
All responses are completely anonymous and cannot be linked back to you.

**Will I be paid for being in this study?**
If you complete the survey, you may enter your email address or phone number for a chance to win one of twenty $25 Amazon gift cards. Your email address or phone number is entered after the survey is completed and is delinked from your survey responses.

If you agree to participate in this study, please indicate your consent below.

_____ I WILL participate in the survey research.

_____ I will NOT participate in the survey research.
Factors Associated with Engagement in Therapy for Individuals with Serious Mental Illness

Thank you for taking part in the following survey. The first set of questions will help confirm that you meet the requirements to be included in the study. If you meet the requirements, you will learn more about the study and decide whether or not you would like to continue participating in the study.

1. Are you 18 years old or older?
   - O Yes, I am 18 years old or older
   - O No, I am not 18 years old or older

2. Are you currently working with a therapist? A therapist is someone who you meet with regularly to talk through your problems and develop skills to cope with your illness. Your therapist may have been the person who told you about this study.
   - O Yes, I am currently working with a therapist.
   - O No, I am not working with a therapist.

3. Have you been diagnosed with any of the following illnesses? Select all that apply.
   - O Schizophrenia
   - O Schizoaffective Disorder
   - O Delusional Disorder
   - O Schizophreniform Disorder
   - O Bipolar I Disorder
   - O Bipolar II Disorder
   - O Major Depressive Disorder
   - O Posttraumatic Stress Disorder
   - O Borderline Personality Disorder
   - O I have not been diagnosed with any of the above disorders.

4. Have you been diagnosed with any other mental illnesses or mental health conditions? If so, please list them.

5. As a result of your mental illness/diagnosis:

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you find it hard to make and keep friends or maintain your relationships with friends or partners?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Do you find it hard to maintain relationships with family members?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Do you find it difficult to maintain a full-time job?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Question</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>Do you receive Social Security for a mental health disability?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you find it difficult to complete daily activities like bathing, cleaning, cooking, and keeping your living area in order?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you struggle to meet your basic needs for food (i.e., do you often go hungry or not have enough food)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you struggle to meet your basic needs for housing (i.e., do you frequently lose housing or experience homelessness)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you struggle to meet your basic needs for safety (i.e., do you often find yourself in dangerous situations)?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. What is your age? ____________

7. What is your gender?
   O Male
   O Female
   O Transgender
   O Other

8. What is your race?
   O American Indian or Alaska Native
   O Asian
   O Black or African American
   O Native Hawaiian or Other Pacific Islander
   O White
   O Multiracial
   O Some Other Race

9. Are you of Hispanic or Latino ethnicity?
   O Yes
   O No

10. What state do you live in? If you live outside of the United States, what country and province?

11. What city do you live in?

12. How did you hear about this survey?
13. What is the highest level of schooling you have completed?
   - 8th grade or below
   - 9th grade
   - 10th grade
   - 11th grade
   - 12th grade or GED
   - Some college
   - Undergraduate degree
   - Graduate degree

14. Which mental health services are you currently receiving? Select all that apply.
   - Outpatient therapy
   - Case management/care coordination
   - Medication services
   - Day treatment or drop in center
   - Living in a mental health group home
   - Crisis services
   - Assertive Community Treatment (ACT/PACT)
   - Inpatient hospitalization
   - Other - please specify:

15. Which mental health services have you received in the past? Select all that apply.
   - Outpatient therapy
   - Case management/care coordination
   - Medication services
   - Day treatment or drop in center
   - Living in a mental health group home
   - Crisis services
   - Assertive Community Treatment (ACT/PACT)
   - Inpatient hospitalization
   - Other - please specify:

16. How long have you been receiving mental health treatment? <Drop-Down Menu>

17. For the purpose of this study, you will be reflecting upon your working relationship with your therapist. Your therapist may be the person who referred you to the study and the person you meet with regularly to talk through your problems and develop skills to
cope with your illness. These questions are intended to gather information about that relationship and how involved you feel in your work with your therapist.
How long have you been working with your current therapist? <Drop-Down menu>

18. How did you decide to begin services with your current therapist?
   O Started services on my own
   O Referred by the legal system (probation, the court, attorney)
   O Pressured by friends and/or family to begin services
   O Referred by a different mental health provider
   O Referred by an inpatient psychiatric hospital as part of my aftercare
   O Other - please specify

19. The following questions ask you to reflect upon your relationship with your therapist. Please keep this in mind when answering the questions. For each statement, please select the answer that best describes you at the current time.

<table>
<thead>
<tr>
<th>How often do you attend therapy appointments on your own (i.e., without someone from your treatment team or family taking you)?</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Usually</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you attend therapy appointments with support (i.e., with someone from your treatment team or family taking you)?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How well do you get along with your therapist?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often do you discuss your personal feelings (i.e., anger, depression) with your therapist?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often do you discuss your personal problems (i.e., difficulties in current life situation) with your therapist?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often do you discuss your symptoms with your therapist?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often do you see therapy as useful?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often do you agree with your treatment?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often do you go along with your treatment?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often do you take your medication as prescribed by your</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
psychiatrist/nurse practitioner? If you are not taking medication, how often would you take your medications if they were prescribed?

<table>
<thead>
<tr>
<th>How often are you actively involved in your therapy (i.e., how often do you really want to involve yourself in your therapy)?</th>
</tr>
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<tbody>
<tr>
<td>O</td>
</tr>
</tbody>
</table>

20. Below is a list of statements and questions about experiences people might have with therapy or their therapist. Think about your experience in therapy and decide which category best describes your own experience. Please take time to consider each question or statement carefully.

<table>
<thead>
<tr>
<th>My therapist and I agree about the things I will need to do in therapy to help improve my situation.</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What I am doing in therapy gives me new ways of looking at my problem.</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
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<tbody>
<tr>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
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<td>O</td>
<td>O</td>
<td>O</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>I believe my therapist likes me.</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>O</td>
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<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>My therapist does not understand what I am trying to accomplish in therapy.</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
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<tr>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I am confident in my therapist’s ability to help me.</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>My therapist and I are working towards mutually agreed upon goals.</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I feel that my therapist appreciates me</th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Statement</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Disagree more than agree</td>
<td>Agree more than disagree</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>--------------------------</td>
<td>--------------------------</td>
<td>-------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>We agree on what is important for me to work on</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>My therapist and I trust one another.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>My therapist and I have different ideas on what my problems are.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>We have established a good understanding of the kind of changes that would be good for me.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>I believe the way we are working with my problem is correct.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

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21. Below are listed a variety of ways that one person may feel or behave in relation to another person. Please consider each statement with reference to your present relationship with your therapist.

Think of him or her as you answer each statement, according to how strongly you agree or disagree that the statement is true in this relationship. Answer each item as though it was by itself, not to agree with another answer. Be sure to mark every statement.
with me.

<table>
<thead>
<tr>
<th>My therapist nearly always sees exactly what I mean.</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>My therapist is friendly and warm toward me.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist appreciates just how the things I experience feel to me.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist finds me rather dull and uninteresting.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist does not understand me.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>I feel that my therapist is genuine with me.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist's own attitude toward things I do or say gets in the way of understanding me.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No matter what I say about myself, my therapist likes (or dislikes) me just the same.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist realizes what I mean even when I have difficulty saying it.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist expresses his/her true inner impressions and feeling with me</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist doesn't listen and pick up on what I think and feel.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist wants me to be a particular kind of person</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>My therapist usually understands the whole of what I mean.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Whether I express 'good' or 'bad' feelings/desires makes (or would make)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
no difference to his or her attitude toward me. (Answer 'no' if this DOES make a difference to his or her attitude.)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

My therapist doesn't realize how sensitive I am about some of the things we discuss. (Answer with one of the 'no' ratings if you feel she or he is aware of your sensitivity.)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I feel that my therapist does not like me.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

My therapist's response to me is so fixed and automatic that I don't get through to him/her.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I believe that my therapist has feelings she/he does not tell me about that affect our relationship.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

When I am hurting or upset, my therapist recognizes my painful feelings without becoming upset him/herself.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22. Please read the following statements and indicate to what extent you agree or disagree with the statement.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I have felt free to do what I want in therapy.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I chose to participate in therapy.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It was my idea to go to therapy.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I have a lot of control in therapy.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have more influence than anyone else in therapy.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I have enough of a chance to say what I want to say in therapy.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I get to say what I want in therapy.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My therapist wants to know what I want to do in therapy.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My opinion doesn't matter in therapy.</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

23. Below is a list of problems that people sometimes have. Please think about how often you experienced certain problems and how much they bothered or distressed you during the past month. For each problem, please pick one answer that best describes how often you have had the problem in the past month (30 days).

**How often have you experienced these problems in the last 30 days?**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Not at all</th>
<th>Once during the last month</th>
<th>Several times during the last month</th>
<th>Several times a week</th>
<th>At least every day</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often have you felt nervous, tense, worried, frustrated, or afraid?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often have you felt depressed?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often have you felt lonely?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often have others told you that you acted &quot;paranoid&quot; or &quot;suspicious&quot;?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you hear voices, or hear and see things that other people didn't think were there?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you have trouble making up your mind about something, like deciding where you wanted to go or what you were going to do, or how to solve a problem?</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you have trouble thinking straight or concentrating on something you needed to do</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
(like worrying so much or thinking about problems so much that you can't remember or focus on other things)?

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often did you feel that your behavior or actions were strange or different from that of other people?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you feel out of place or like you didn't fit in?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you forget important things?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you have problems with thinking too fast (thoughts racing)?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you feel suspicious or paranoid?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often did you feel like hurting or killing yourself?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>How often have you felt like seriously hurting someone else?</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

24. Please respond to the following questions/statements based on your experience with medications. If you are not currently taking medication for your mental health symptoms, skip the questions that do not apply to you.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you ever forget to take your medications?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Are you careless at times about taking your medication?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>When you feel better, do you sometimes stop taking your medication?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Sometimes if you feel worse when you take your medications, do you stop taking them?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>I take my medications only when I'm sick.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>It is not natural for my mind and body to be controlled by medication.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>My thoughts are clearer on medication.</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>By staying on medication, I can prevent myself from getting sick.</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
I feel weird, like a 'zombie' on medication. O O
Medication makes me feel tired and sluggish. O O

25. Please answer the following questions based on your experience with alcohol and/or other drugs.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you ever felt that you ought to cut down on your drinking or drug use</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Have people annoyed you by criticizing your drinking or drug use?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Have you ever felt bad or guilty about your drinking or drug use?</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>Have you ever had a drink or used drugs first thing in the morning to steady your nerves or to get rid of a hangover?</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

The final section of this survey consists of two open-ended questions. Please enter your responses in the text fields below.

26. What does your therapist do that makes you feel more engaged in therapy (i.e., more likely to attend appointments, more likely to communicate openly with your therapist, more likely to complete therapy goals in session and between sessions)?

27. What does your therapist do that makes you feel less engaged in therapy (i.e., less likely to attend appointments, less likely to communicate openly with your therapist, less likely to complete therapy goals in session and between sessions)?

28. If you would like to potentially be contacted for follow-up discussions on these topics, please enter your first name and a way to contact you (email or phone number). This information will be collected separately from your responses to the survey questions, ensuring that your previous responses remain anonymous.
   Name:
   Contact Information:

29. If you would like to receive a $10 Amazon gift certificate, please enter your first name, email address, and phone number. This information will be collected separately from your responses to the survey questions, ensuring that your previous responses remain anonymous.
   Name:
   Contact Information:
### Appendix F – Participant Breakdown by State

<table>
<thead>
<tr>
<th>State</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Arizona</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>California</td>
<td>12</td>
<td>9.2</td>
</tr>
<tr>
<td>Connecticut</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Delaware</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Florida</td>
<td>11</td>
<td>8.4</td>
</tr>
<tr>
<td>Georgia</td>
<td>8</td>
<td>6.1</td>
</tr>
<tr>
<td>Illinois</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Indiana</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>Kentucky</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Maryland</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>Michigan</td>
<td>4</td>
<td>3.1</td>
</tr>
<tr>
<td>Minnesota</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Missouri</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Montana</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>Nebraska</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>New Jersey</td>
<td>2</td>
<td>1.5</td>
</tr>
<tr>
<td>New Mexico</td>
<td>7</td>
<td>5.3</td>
</tr>
<tr>
<td>New York</td>
<td>14</td>
<td>10.7</td>
</tr>
<tr>
<td>North Carolina</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>Ohio</td>
<td>4</td>
<td>3.1</td>
</tr>
<tr>
<td>Oregon</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>9</td>
<td>6.9</td>
</tr>
<tr>
<td>South Carolina</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>South Dakota</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Tennessee</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>Texas</td>
<td>5</td>
<td>3.8</td>
</tr>
<tr>
<td>Utah</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Virginia</td>
<td>11</td>
<td>8.4</td>
</tr>
<tr>
<td>Washington</td>
<td>3</td>
<td>2.3</td>
</tr>
<tr>
<td>West Virginia</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Wisconsin</td>
<td>3</td>
<td>2.3</td>
</tr>
</tbody>
</table>
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