Examining The Relationship Between Therapists’ Attachment-Related Characteristics And The Process And Outcome Of Psychotherapy

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EXAMINING THE RELATIONSHIP BETWEEN THERAPISTS’ ATTACHMENT-RELATED CHARACTERISTICS AND THE PROCESS AND OUTCOME OF PSYCHOTHERAPY

Charnel Marietje Houben, Ph.D.

Western Michigan University, 2022

Although psychotherapy researchers have gleaned greater understanding about how client attachment classifications influence the outcome of psychotherapy, relatively few studies have investigated therapists’ effects and have yielded inconclusive results (Steel et al., 2018). In the current study, we investigated how therapist attachment affects changes in the working alliance and client psychological distress over a course of psychotherapy treatment. We evaluated attachment in a sample of 23 therapist trainees from a university-based training clinic in the U.S. with the recently validated, transcript-based Therapist Attunement Scales (TASc; Talia & Muzi, 2017), which measures attunement by moment-to-moment discursive markers from a single psychotherapy session. Therapist trainees also completed the Reflective Functioning Questionnaire (RFQ; Fonagy, Luyten, Moulton-Perkins, et al., 2016) to assess mentalizing. Client outcome data were obtained from archival measures consisting of a weekly client-rated working alliance and a measure of psychological distress. Multilevel modeling analyses revealed that client psychological distress reduced and the working alliance improved over 11 sessions of psychotherapy, but contrary to our hypothesis, not as a function of therapist trainees’ markers of security (i.e., Balanced). However, low Detaching therapist trainees’ clients demonstrated a clinically significant reduction in psychological distress over time with a drop of 14 points from
baseline. Furthermore, results suggest that there was no correlation between secure attachment (i.e., Balance classification) and ineffective mentalizing (i.e., high scores on Certainty and Uncertainty). Implications of this study build on the foundation of psychotherapy research, practice, and training.
EXAMINING THE RELATIONSHIP BETWEEN THERAPISTS’ ATTACHMENT-RELATED CHARACTERISTICS AND THE PROCESS AND OUTCOME OF PSYCHOTHERAPY

by

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Charnel Marietje Houben
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CHAPTER I

LITERATURE REVIEW

Throughout the past two decades, attachment researchers have uncovered a greater degree of meaningful understanding on how client attachment orientation is related to psychotherapy outcome. When examining individual differences in the context of psychotherapy, researchers have emphasized how particular client characteristics, specifically attachment orientation, have had an impact on the development of the working alliance and subsequent psychotherapy outcome (Eames & Roth, 2000; Kanninen et al., 2000; Parish & Eagle, 2003).

There is growing recognition among scholars that secure client attachment is associated with a better working alliance and improved psychotherapy outcomes (Diener & Monroe, 2011; Smith et al., 2010). For example, in a meta-analysis of 19 studies (n = 1,467), Levy and colleagues (2011) found that clients with higher reported attachment anxiety scores evidenced the least improvement in symptoms of distress compared to secure clients who demonstrated more favorable outcomes. Moreover, Mallinckrodt and colleagues (2005) found that client self-reported insecure attachment (i.e., high attachment anxiety and high attachment avoidance) yielded a negative impact on the working alliance. Compared to clients with an insecure attachment orientation, securely attached clients are notably more capable of self-exploration and seek comfort when distressed (Mikulincer & Nachshon, 1991), thus facilitating a stronger working alliance.

Although psychotherapy researchers have gleaned a greater understanding about how client attachment orientations influence the outcome of psychotherapy, relatively few studies
(Dozier et al., 1994; Lopez & Brennan, 2000) have investigated how therapists’ attachment orientation may influence therapists’ ability to form a strong working alliance and make a positive impact on psychotherapy outcomes. Before examining the existing literature on what we currently know about the influence of therapists’ attachment and explore other attachment-related characteristics on the outcome of psychotherapy, I will identify and briefly summarize various factors that have had the most significant impact on client success in psychotherapy.

To date, while more knowledge has been gleaned about how client characteristics contribute to the working alliance and psychotherapy outcome (Byrd et al., 2010; Cyranowski et al., 2002; Wiseman & Tishby, 2014), psychotherapy researchers seek to understand how therapists’ attachment-related characteristics relate to the working alliance, ultimately impacting psychotherapy outcome. Although it has well been established that psychotherapy in general is highly effective, empirical findings have yet to provide a sufficient evidence-based explanation about how exactly therapy works (Kazdin, 2007). This leaves psychotherapy researchers with the perennial question of what factors account for psychotherapy success. Based on aggregated data from meta-analyses and thousands of outcome studies, Norcross (2011) has proposed two models that accounts for psychotherapy outcome: (a) model one estimates the explained psychotherapy outcome variance, and (b) model two estimates the unexplained psychotherapy outcome variance.

Model one indicates the percentage of explained psychotherapy outcome variance that can be attributed to the following therapeutic factors: extra-therapeutic change, expectancy (placebo effect), techniques, and common factors. The extra-therapeutic change factors, which include the client’s motivation for change, social support, positive response to therapy, and fortuitous events outside the context of therapy, account for 40% of the explained variance in
outcome. Expectancy or placebo effects, which explain the client’s strong belief that the rationale and treatment methods in therapy will be effective, account for 15% of the explained overall outcome. Technique factors, which include intervention methods used in therapy, account for 15% of the explained variance in outcome. Common factors—core factors analogous across most psychotherapies regardless of theoretical orientation—that include empathy, goal consensus and collaboration, positive regard, mastery, genuineness, mentalization, emotional experience, and the therapeutic relationship account for approximately 30% of the explained variance in outcome. Of these four factors that contribute to outcome, evidence-based research has indicated that the common factors may be fundamentally responsible for transformative change in psychotherapy outcome and correlate with improved levels of psychological functioning (Fisher et al., 2016).

Although the four therapeutic factors discussed above contribute to the overall explained psychotherapy outcome variance, model two provides the unexplained variance in psychotherapy outcome yielding a reduction in the amount attributed to therapeutic factors. Approximately 40% accounts for the unexplained variance attributable to therapeutic factors. Norcross and Lambert (2011) estimate that the client contributes approximately 30%, the therapy technique 8%, the therapeutic relationship 12%, and the therapist 7% to the total psychotherapy outcome variance attributable to therapeutic factors. While client factors contribute to the largest total variance of psychotherapy success, they may equally contribute significantly to the failure of therapy and are therefore difficult to predict. In clinical trials examining a wide range of disorders except for severe (bipolar disorder, schizophrenia), Lambert (2013) reported that only about 75% of clients who enter psychotherapy treatment show benefit.
In fact, a critical consideration in psychotherapy is the degree to which it is not helpful (or may even be harmful). An estimated 5–10% of adult clients leaving clinical trials leave treatment worse off than they began (Lambert, 2013). Likewise, although technique factors enhance therapy, they may matter more primarily when considering the severity of symptoms. However, the therapeutic relationship and therapist factors account for a considerable percentage of the total variance outcome.

From nearly three decades of research, Henry (1998) concluded that, aside from the intervention technique, the largest portion of outcome variance can be attributable not to the client but rather to the emerging therapeutic relationship and individual therapist differences. In the context of the therapeutic relationship, working collaboratively toward a common goal within a nurturing and trusting environment has been commonly referred to as the working alliance (Bordin, 1979). Greenson (1976) asserted that the working alliance was an essential component for effective therapy, which is broadly defined as the positive collaboration between therapist and client. Subsequently, Bordin (1979) conceptualized the working alliance as a collaborative enterprise achieved by the therapist and client, which entails three domains: (a) agreement on the goals of treatment, (b) agreement on the tasks necessary to achieve the goals of treatment, and (c) quality of the bond between the therapist and client. The relationship between the working alliance and psychotherapy outcome has been consistently supported across process and outcome literature as perhaps the single most important predictor to positive outcomes (Horvath & Symonds, 1991). Furthermore, evidence regarding therapeutic alliance contribution to psychotherapy outcome is reflected in more than 1,000 studies (Orlinsky et al., 2004). Much less, however, is known about how therapist factors contribute to the working alliance.
Although individual therapists’ factors contribute the largest portion of outcome variability, some therapists consistently deliver better outcomes compared to other therapists, even after controlling for client factors (Baldwin & Imel, 2013; Barkham et al., 2017; Saxon & Barkham, 2012). A recent meta-analysis of therapist contributions to the working alliance found that approximately 9% of the proportion of variance in the working alliance was attributable to therapist factors (Baldwin & Imel, 2013). Psychotherapy researchers have cited therapist characteristics that are associated with this effect, including empathy, mentalization, the working alliance, professional self-doubt, and deliberate practice (Wampold et al., 2017). A systematic review of quantitative studies suggests that therapists’ effects account for approximately 5–9% of variance in psychotherapy treatment outcome (Baldwin & Imel, 2013; Crits-Christoph et al., 1991; Johns et al., 2018). In consideration of therapists’ contribution to psychotherapy outcome, Wampold (2001) concluded that “a preponderance of evidence indicates that there are large therapist effects . . . and that the effects greatly exceed treatment effects” (p. 21).

Because therapist characteristics are one of the most salient factors that contribute to the outcome of psychotherapy and given that the quality of the therapeutic relationship is among the most robust predictors associated with favorable psychotherapy outcome (Wampold, 2001), researchers have recently begun to explore how therapists may influence the working alliance and ultimately the outcome of therapy. The work of psychotherapy has historically been thought of as a learned skill by many with the consideration of therapist attachment status being only one among several factors that may influence the outcome of therapy. Steel et al. (2018) found that therapists’ attachment orientations are associated with the therapeutic working alliance and psychotherapy outcomes. Moreover, attachment security, as indicated by low attachment anxiety and avoidance, is positively related to the working alliance, yielding positive outcomes in
psychotherapy (Dozier et al., 1994; Reis & Grenyer, 2004). Contemporary attachment researchers have reported some initial evidence in favor of these hypotheses, with some suggesting that therapists with secure attachment predicts stronger working alliances and ultimately improved treatment outcomes (Degnan et al., 2016; Steel et al., 2018).

In addition to therapists’ influence on the working alliance and outcome of psychotherapy, therapists’ mentalization capacity may also predict therapists’ effectiveness and play a significant role in the therapeutic endeavor and subsequent success (Cologon et al., 2017). Ongoing investigations are finding that therapists’ capacity for mentalization may be a significant contributing factor to the process and outcome of psychotherapy (Diamond et al., 1999; Koenigsberg et al., 2000). For example, therapists with a secure attachment orientation may be more likely to manifest better mentalizing abilities compared to therapists with insecure attachment orientations. Bowlby (1988) asserted that therapists must “strive to be reliable, attentive and sympathetically responsive” (p. 140) to their clients until they become a “secure base” for their clients’ exploration of thoughts, feelings, and experiences. Conceivably, it may be more likely that therapists who serve as a secure base to their clients also have a secure state of mind with respect to attachment compared to therapists who reflect more insecurity (Dozier & Bates, 2004). Like responsive caregivers, therapists with secure attachment expressions may be more attuned to the client’s inner experience (and their own), making them more likely to have more genuine mentalizing abilities compared to insecure therapists.

Empirical findings provide support in favor of this hypothesis, suggesting that therapists’ secure attachment orientations predict stronger working alliances and thus yield better treatment outcomes (Degnan et al., 2016; Steel et al., 2018). Therefore, examining
therapists’ attachment orientation, mentalization, and the potential of these two dimensions over the course of psychotherapy may be one fruitful avenue to identify and assess what factors may be contributing to positive changes in adult psychotherapy outcome over time.

Despite the value of this knowledge as it relates to the professional development and training of therapists and the impact on client improvement in psychotherapy, much has been left out of contemporary discourse on this topic. Thus far, the psychotherapy literature reveals mixed findings about the relationship between therapists’ attachment orientation and the underlying influence of mentalization on the working alliance and psychotherapy outcome. Although there is preliminary evidence to suggest that therapist attachment orientation is important to the working alliance and psychotherapy outcome, inconsistent findings limit convincing conclusions.

Two factors seem to contribute to the inconsistent findings. The first factor is that psychotherapy researchers lack an instrument that accurately measures therapists’ attachment orientation in real time during a therapy session. Thus far, psychotherapy researchers utilizing adult attachment instruments have relied on a range of measurements assessing differing constructs. Some attachment researchers, for example, have relied on semi-structured interviews such as the Adult Attachment Interview (AAI; George et al., 1996). Although the AAI is a widely used instrument and considered the gold standard for attachment measurements, it is costly and time-consuming and requires extensive training to administer. Moreover, the AAI is used to classify an adult’s state of mind (with respect to attachment) related to their early childhood experiences with caregivers. Other attachment researchers have relied on self-report questionnaires, such as the Experiences in Close Relationships scale (ECR; Brennan et al., 1998) to measure an individual’s perceptions as they relate to experiences in romantic or close
relationships. Both interview-based methods (i.e., AAI) and self-report questionnaires (i.e., ECR and its derivatives) are likely not measuring therapists’ attachment behaviors in session, but rather assessing different constructs of attachment that may relate to the working alliance and outcome in differing ways.

The second factor that may contribute to the mixed findings is limited knowledge about the influence of therapist mentalization on the outcome of psychotherapy. The findings from large-scale naturalistic studies (Beutler et al., 2004; Saxon & Barkham, 2012; Webb et al., 2010) suggest that therapists’ gender, experience, training, and theoretical orientation have little or no impact on psychotherapy outcome. As a result, psychotherapy research in the domain of therapist mentalization and the effect on client outcome has suffered nearly into nonexistence. What psychotherapy researchers have yet to reveal is whether therapists’ mentalization influences psychotherapy.

To my knowledge, only one study thus far has examined the influence of therapist mentalizing on the process and outcome of psychotherapy. Therapist mentalizing is considered by some to be foundational to the process of change in psychotherapy (Fonagy & Bateman, 2006). The use of mentalizing further develops our understanding of the role of common factors in the process of psychotherapy (Wampold, 2001). In a study assessing therapist mentalization, therapist attachment style, and therapist effectiveness, Cologon and colleagues (2017) found that therapist mentalization (as measured by reflective functioning) was a significant predictor, whereas therapist attachment (as measured by self-report) was not a significant predictor of therapist effectiveness. Cologon and colleagues reported, however, a significant interaction effect between therapist self-report of attachment anxiety and mentalization, which taken together were significantly predictive of therapist effectiveness.
The findings indicated that therapists with higher mentalizing had significantly better client psychotherapy outcomes (as measured by the OQ-45) compared to therapists with lower mentalizing. However, contrary to the predicted expectation, therapists with higher attachment security (as measured by the ECR) did not have better outcomes in psychotherapy. The findings indicate that therapists with high mentalizing also reported high levels of attachment anxiety but were more effective at producing improved client outcomes compared to therapists with high mentalizing and lower attachment anxiety. These findings provide novel insight into our current understanding of mentalization and suggest that enhanced mentalizing is important in determining the effectiveness of therapists in client outcomes.

Although this study builds upon our current knowledge of the effectiveness of therapist factors contributing to psychotherapy process and outcome, this study relied on utilizing the ECR to assess therapists’ attachment styles, which might not provide an accurate assessment of therapist attachment considering the context of the attachment relationship in psychotherapy. Moreover, Cologon et al. (2017) were interested in the construct of effectiveness, which is defined as some therapists achieving better results compared to their counterparts based on a client outcome measure aggregating the results for all clients associated to one therapist.

The mixed findings regarding the relationship between therapists’ attachment orientation and psychotherapy outcome drive the current study, which has a two-fold purpose. First, I will examine the degree to which therapists’ attachment orientation and mentalization capacity might be associated to psychotherapy outcome by using a recently validated, transcript-based adult attachment measure. This innovative, ground-breaking instrument called the Therapist Attunement Scales (TASc; Talia et al., 2018) specifically measures therapist attachment security in session. The use of this instrument is shedding new insight into our current understanding
about the relationship between therapists’ attachment orientation and outcome of therapy. The TASc is used to analyze therapists’ attunement and attachment status in any given psychotherapy session. By coding transcribed therapy sessions in this way, Talia and colleagues have demonstrated that it is possible to reliably determine therapist attachment orientation by measuring moment-by-moment discursive, relational behavior within a single psychotherapy session. In doing so, it may be possible to determine the attachment orientation of therapists more accurately as their sessions unfold.

Since attachment and mentalizing may be viewed as being loosely coupled whereby they exist in a reciprocal relationship (Bateman & Fonagy, 2004), a second purpose of this study is to explain how therapists’ mentalization influences the outcome of psychotherapy. To understand the connection between mentalization and psychotherapy outcome, the concept of mentalization will be both defined and operationalized. Mentalizing may be defined as an individual’s awareness of mental states in oneself and others, particularly as it relates to explaining actions and behaviors (Fonagy et al., 1998). In other words, mentalizing involves perceiving and interpreting the thoughts, feelings, wishes, beliefs, and desires that explain another person’s actions and behaviors and at the same time provides greater understanding of one’s own behavior (Bateman & Fonagy, 2004).

Mentalizing is a mostly preconscious, imaginal activity that implies, by its very nature, a sense of uncertainty, as internal mental states in both others and ourselves are often quite difficult to know with absolute certainty. Thus, attempting to make sense of mental states is vulnerable to error or inaccuracy (Fonagy & Bateman, 2006). All individuals are not able to mentalize to the same extent and thus hold varying strengths and weaknesses. Furthermore, mentalization is thought to develop best within secure and stable relationships during childhood.
and is characterized by being coherent, rich in depth, and highly flexible. When individuals are under intense moments of stress and heightened anxiety, they tend to become rigid in thinking, thereby minimizing the expansion to mentalize.

While humans are born with the capability to mentalize, there are variations along a continuum modulated by the social environment, primarily early experiences with primary caregivers. Thus, the development of balanced mentalizing relies primarily on an infant’s mental states being understood and reflected by caring, attentive, and sensitive caregivers (Fonagy & Target, 1997). When developmental origins are marked by this robust sense of communication, self-regulation and self-control are positively influenced, paving the way for increased resilience. A secure attachment relationship with early caregivers is thought to provide a necessary precondition for balanced mentalizing ability (Fonagy et al., 2008). Conceiving of oneself and others as agentive, driven by meaningful mental states, creates a sense psychological coherence about oneself and others that is essential for navigating a complex social world.

Since mentalizing is a cognitive and interpersonal process of social imagination, it enables us to comport the behaviors of ourselves and others, making cooperative and adaptive interaction possible. Deficits in parental mentalizing, however, have been associated with disrupted attachment for infants during early development, thus resulting in impaired mentalizing and psychopathology later in life (Fonagy et al., 2002). According to Fonagy and colleagues (2002), without mentalizing an individual is unable to develop a robust sense of self, constructive social interaction, mutuality in relationships, or a sense of personal security.

Over the past 25 years, Peter Fonagy and colleagues have led the way to illuminating our understanding of mentalizing by operationalizing and exploring the construct of mentalization in developmental, personality, and clinical research. Moreover, Fonagy and Bateman have
spearheaded a progressive intervention to address mentalization deficits, called mentalization-based therapy (MBT; Bateman & Fonagy, 2004). Presently, psychotherapy researchers assess mentalization primarily by coding the Reflective Functioning scale (RF, Fonagy et al., 1998) on the AAI or with shorter self-report measures such as the Reflective Functioning Questionnaire (RFQ; Fonagy, Luyten, Moulton-Perkins, et al., 2016). Some researchers have linked the construct of mentalizing to therapy outcomes, for example, psychological mindedness (Bohart & Wade, 2013), empathy (Rybakowski & Bodnar, 2017), or meta-cognition (Dimaggio & Lysaker, 2015). This line of investigation, however, has focused exclusively on the clinical relevance of mentalization to clients with low mentalization (i.e., deficits in reflective functioning) that is associated with a number of pathological outcomes, such as personality disorders and eating disorders. Despite the growing number of clinical studies on the concept of mentalization in psychotherapy, there is a paucity of research exploring mentalization as a predictor of psychotherapy outcome, especially as it relates to the influence of therapist mentalization on psychotherapy outcome.

Thus far in this chapter, I have highlighted how psychotherapy researchers have focused on how clients’ attachment orientation influences psychotherapy outcome rather than on how therapists’ attachment orientation might influence psychotherapy outcome. Second, I noted that the limited research that has been conducted on the relationship between therapists’ attachment orientation and psychotherapy outcome has resulted in mixed findings. Third, based on the existing findings, I propose (a) the need for an accurate measurement of therapist attachment orientation, and (b) the need to understand the relationship between therapist mentalization and attachment orientation on psychotherapy outcome. Examining these constructs may help
untangle the current mixed findings and provide more conclusive evidence regarding how therapists’ attachment orientation is related to psychotherapy outcome.

I will continue with Chapter I by providing a brief overview of the major tenets of attachment theory. This overview is foundational to this current study because the researchers cited in the four main sections that follow use attachment theory as the lens through which they gather data and draw conclusions. In the first of the four main sections, I will trace the evolution of how attachment researchers have developed and refined attachment measures over the past two decades that have been used in psychotherapy research and clinical interventions. In the second section, I will present a brief summary from psychotherapy scholarship on how clients’ attachment security contributes to psychotherapy outcomes. In the third, I will review the literature on known therapeutic factors that contribute to psychotherapy outcome, specifically addressing the therapists’ characteristics. Next, in the fourth section, I will offer a critique regarding the paucity of data on the contribution of therapists’ individual differences that influence psychotherapy outcome, noting especially the gap in the literature regarding the relationship between therapists’ attachment orientation and psychotherapy outcome. Finally, I conclude the chapter by articulating my rationale for why this study is germane in addressing this important gap in the literature.

**Major Tenets of Attachment Theory**

The historical development of attachment theory, which began in the 1960s, has had a significant impact on contemporary psychotherapy research. Drawing on insights from primate ethology, evolutionary theory, and developmental psychology, John Bowlby (1969/1982, 1988) conceptualized attachment as an instinctual, biological system in which infants are hardwired to assure proximity to their mothers (or other supportive caregivers), who are likely to provide
safety during times of physical or psychological need (e.g., hunger, threat, or emotional distress). This theory of attachment starkly opposed the predominant concept of drive theory at the time, which posits that infants develop close connection with their mother solely to meet physiological needs. Conversely, by viewing attachment as meeting a fundamental relational need, Bowlby (1969/1982) revised Freud’s theory of psychosexual development of the libido as the driving force behind development and subsequent behavior. In formulating attachment theory, Bowlby (1969/1982, 1988) focused on the foundational aspects of the infant-caregiver relationship during infancy and childhood and explored how these early experiences have an enduring effect on the quality of latter adult attachment relationships.

Bowlby (1969/1982, 1988) asserted that infants have an innate biological drive to form an emotional bond to their mother, directly related to increasing their chances of survival. This instinctive, behavioral, and motivational drive, referred to as the attachment behavioral system, serves to establish a sense of protection and security. According to Bowlby (1969/1982), infants seek proximity to familiar affectionate adults (attachment figures) who will support and care for them during times of threat, need, or pain. In secure attachment relationships, the attachment caregiver serves as a safe haven, providing the infant with comfort, protection, and security. Additionally, the attachment caregiver serves as a secure base, providing the infant with a sense of security from which to explore growth-enhancing activities.

**Mentalization**

Influenced by Bowlby’s concept of mother-infant attachment, Peter Fonagy and colleagues used this lens to explore how the capacity to mentalize is rooted in the context of the early attachment relationships (Fonagy & Bateman, 2006). The availability and responsiveness of the attachment figure is the primary means to foster an infant’s innate capacity or potential for
mentalization. In addition to fulfilling a fundamental need for safety and security, attachment relationships also serve the critical need to develop mentalizing abilities. A primary caregiver who possesses strong abilities in mentalizing serves a function to equip the infant with the capacity to understand the mental states in others and understand the self (Bateman & Fonagy, 2004). Secure attachment relationships where an attachment figure is interested in the infant’s mind and the infant is safe to explore the mind of the attachment figure allow the infant to explore other subjectivities. Infants finding themselves accurately represented in the mind of the caregiver as a thinking and feeling intentional being ensures that the infant’s own capacities for mentalizing will develop well (Fonagy et al., 2002).

This capacity to mentalize in the context of early attachment relationships may be a central determinant of affect regulation (Bateman & Fonagy, 2004). Mentalizing may be conceived as understanding one’s own mental states, which in turn forms the spine of our sense of self and identity (Fonagy & Target, 1997). Initially experienced through adequate marked mirroring with a primary caregiver, mentalizing is a scaffolding process by which a sense of self and emotional agency develop (Bateman & Fonagy, 2004; Gergely & Watson, 1996). Marked mirroring interactions occur as a process by which the primary caregiver reflects back the infant’s affect in a way that conveys greater understanding to the infant’s own subjective experiences. Secure attachment facilitates the capacity to regulate emotions as a result of co-regulation that was established with the primary attachment figure. Secure attachment is based on and leads to the capacity for reflection on the states of mind of self and others (Fonagy et al., 2002). Sroufe (2005) proposed that caregiver-infant attachments involve repeated instances whereby the infant’s emotions are regulated through the responses of the caregiver. From this perspective, mentalizing may reflect differences in emotional regulation (Opie et al., 2021).
Moreover, Opie et al. (2021) have identified insecure attachment patterns of minimizing (i.e., avoidant and dismissing) or maximizing (i.e., resistant and preoccupied) the expression of attachment behaviors and negative affect.

The infant’s capacity to reflect on one’s own mental states positively influences affect regulation and self-control. Of particular importance is that the development of balanced mentalization relies on whether the infant’s mental states are sufficiently understood by an available, sensitive, and responsive caregiver (Fonagy & Luyten, 2016). Consequently, securely attached infants benefit from not only close physical but also close emotional and psychological proximity of the caregiver. In a large-scale empirical study, infants’ attachment security was strongly predicted not only by the caregivers’ security of attachment during pregnancy (Fonagy, Steele, & Steele, 1991) but even more so by the caregivers’ capacity to understand their relationships with their own parents (Fonagy, Steele, Steele, Moran, & Higgitt, 1991).

From an evolutionary and psychological basis, a primary function of early attachment is the development of epistemic trust. A recent reconceptualization of mentalizing has expanded to include another important function of attachment relationships—the development of epistemic trust, that is, trust in the authenticity and personal relevance of interpersonally transmitted knowledge. Epistemic trust enables social learning and allows individuals to learn from their social environment (Fonagy & Allison, 2014). Early attachment researchers concluded that the most important function of attachment relationships was physical protection (Granqvist, 2021) sought through maximizing proximity (Bowlby, 1969/1982) or felt security (Sroufe & Waters, 1977). In addition to caregivers providing physical protection, attachment may be conceptualized and has evolved to serve the function of fostering epistemic trust (Fonagy & Campbell, 2017; Granqvist, 2021).
In its broadest sense, epistemic trust may be thought of as the expectation that overtly communicated information is relevant to both the communicator and recipient (Fonagy et al., 2017). Beyond truthfulness, epistemic trust entails an expectation that information communicated is pertinent to the infant and adds something to their knowledge. It also, however, includes the assumption that the caregiver intends to convey something relevant to the infant. According to Talia et al. (2021), human connection depends upon unconscious expectations about others’ trustworthiness. Perhaps infant-caregiver attachment patterns reflect broader differences in communication with the caregiver and contribute to generalized biases for interpreting communication throughout the adult lifespan. Thus, infant attachment patterns reflect differences in epistemic trust vis-à-vis the caregiver. From this perspective, differences in attachment may be conceptualized to reflect broader and more fundamental differences in interpersonal communication.

Talia and colleagues (2018) proposed a new interpretation of attachment theory and reconceptualized attachment differences as differences in communication related to epistemic trust. In a validation study of the Therapist Attunement Scales (TASc), Talia et al. supported the notion that attachment differences may be associated with individual classifications in the process of in-session discourse. For example, therapists with a “Detaching” classification made more frequent utterances identifying what they expected to be most relevant for the client. Therapists with “Coercing” classifications focused on objective details of the client’s experience as if they prioritized information deemed relevant from their own perspective. Finally, “Balanced” therapists utilized more empathic conjectures and validation and were able to strike a balance between attending to a client’s subjective state and their own independent assessment of the client’s interpersonal experience.
With an aim to expand Main’s account of attachment-related differences, Fonagy and Target (1997) hypothesized that an individual’s security in the AAI may be associated with the capacity to be mindful to the mental states underlying behavior of (i.e., balanced mentalizing) of oneself or the attachment figure(s). Other studies have supported this hypothesis that balanced mentalizing is essential to social adaptation and good mental health (Luyten et al., 2020). Furthermore, in support of Ainsworth’s emphasis on the importance of caregivers’ attentiveness to the infant’s intentions, Zeegers and colleagues (2017) found that caregivers’ capacity to mentalize predicts infant attachment security. Thus, mentalizing may play a critical role in the intergenerational transmission of secure (or insecure) attachment.

**Attachment Strategies**

Coupled with mentalization, the fundamental goal of the attachment behavioral system relies on cultivating and increasing an individual’s sense of security (Bowlby, 1969/1982). Attachment researchers have asserted that proximity seeking is a normative *primary strategy* (Main, 1990) of the attachment behavioral system when an individual is threatened or distressed, or needs protection or support. To integrate the expansive and ever-emerging empirical research on attachment, Mikulincer and Shaver (2007) proposed a three-module theoretical framework of attachment system dynamics in adulthood, listed in Figure 1. The first module highlights the monitoring and appraisal of perceived or actual threatening events and is responsible for the activation of the attachment system. The second module highlights the appraisal for the availability, sensitivity, and responsiveness of attachment figures. Once the attachment system is set into motion, the set-goal for terminating the system’s activation prompts an individual to seek proximity from an actual (or symbolic) attachment figure. If the attachment figure is available and supportive, then the individual is soothed and comforted, enabling a return to resume
activity. However, if the attachment figure is inadequately unavailable, unreliable, or not responsive, the primary attachment strategy (i.e., proximity seeking) will be disrupted in accomplishing its goal. The third module highlights the viability of access for proximity seeking as a means of coping and is responsible for employing the use of other affect-regulating strategies. The individual will adjust by employing and then subsequently adopting secondary attachment strategies (Shaver & Mikulincer, 2005), either by detaching from others and relying steadfastly on oneself (deactivating strategy) or by exhibiting conflicting, ambivalent behaviors of anger and increased intensity for love and protection (hyperactivating strategy) (Main, 1990; Obegi & Berant, 2009).

These strategies run along two major dimensions: avoidance and anxiety. Avoidance based on mistrust of an attachment figure’s goodwill leads to behavioral independence and emotional distance. Conversely, anxiety reflects the degree to which an individual worries that others will not be available in times of need. Not surprisingly, these strategies of avoidance and anxiety operate much differently. Because attachment avoidance is premised on a person’s belief that proximity seeking is not an option, the individual resorts to a defensive independence and self-reliance, while also denying the need for attachment and suppressing any striving for connection. Individuals using anxiety strategies, conversely, seek physical and psychological proximity to an attachment figure. They feel heightened vigilance regarding actual and potential threats, and they monitor the availability or unavailability of the attachment figure. According to Mikulincer and Shaver (2003),

The main goal of these efforts is to get an attachment figure, who is viewed as sufficiently concerned and available, to pay attention and provide protection. The basic means for attaining this goal is to maintain the attachment system in an activated state until an attachment figure is perceived to be available and responsive. (p. 59)
Figure 1

Mikulincer and Shaver (2007) Integrative Model of the Activation and Dynamics of the Attachment System
These secondary attachment strategies have been likened to automatic responses of fight or flight initiated by the sympathetic division of the nervous system (Cannon, 1939). Hyperactivating strategies are the “fight” reaction (i.e., what Bowlby called “protest”) whereby the attachment figure is sometimes available and responsive and sometimes unavailable and non-responsive (Shaver & Mikulincer, 2005). Due to this ambiguity, the individual persistently makes proximity-seeking attempts, and oftentimes will need to intensify the demand for the attachment figure’s love and attention. Deactivating strategies are the “flight” reaction to the attachment figure’s unavailability that seems to develop with caregivers who punish closeness or expressions of vulnerability (Shaver & Mikulincer, 2005). As a result, the individual learns to expect a better response when one’s needs and vulnerability are suppressed or hidden, and the individual handles threats and dangers alone. Thus, these secondary attachment strategies, in turn, become distinguishing behavioral bids of proximity seeking in other close relationships (Bowlby, 1982), thereby shaping perceptions of self and others and future expectancies.

**Internal Working Models**

Bowlby conceived of human development as an individual’s instinct to survive and viewed the attachment-behavioral system as serving both adaptive and dynamic functions (Cassidy & Shaver, 2016). According to Bowlby (1969/1982), infants adapt to various situations to ensure safety and maintain relationships for their physical and emotional survival. Additionally, Bowlby viewed the relationship between infant and caregiver as dynamic, whereby the mother and infant’s responses to each other are shaped by their interaction with each other. With frequent occurrence, this dynamic interaction with the primary caregiver becomes internalized by the infant and develops a mental representation of the self and other from which internal working models are constructed (Bowlby, 1969/1982).
Internal working models consolidate into a cognitive framework whereby a fairly consistent pattern of early social interactions with primary attachment figures becomes a prototypical working model stored in implicit memory that tends to operate unconsciously and is rather resistant to change (Bowlby, 1973). The internal working models or mental representation of self and other guide future oriented emotional responses, perceptions, and goal-setting behaviors that account for enduring functioning of later attachment relationships. Bowlby (1969/1982) distinguished between two different types of internal working models of attachment: (a) a working model of other, representing the primary caregivers’ responses, and (b) a working model of self, representing a sense of being worthy of love and value, or lack thereof. Positive representations of self and other develop when the attachment caregiver is available, sensitive, and responsive.

The early attachment relationship facilitates the development and maintenance of mental representations of the self and other that will enable the child to predict and understand the environment; engage in survival-promoting behaviors, such as proximity seeking; and establish a sense of felt security (Bretherton, 1985; Sroufe & Waters, 1977). Bowlby (1969/1982) asserted that mental representations formed in the context of the infant-caregiver relationship will guide future social and emotional behavior as the child’s internal working model will guide their response.

**Early Development of Attachment Models**

**Attachment Patterns**

Bowlby (1969/1982) suggested that these encoded mental representations of self and others (i.e., internal working models) from early attachment experiences create a template of the infant’s characteristic way of responding to their internal experience. Over time, the nature and
quality of accessibility, responsiveness, and sensitivity in the care-giving context forms a child’s attachment experience. The organization of attachment can be defined as characteristic and consistent response patterns that govern specific emotional behaviors and expressions (Hazan & Shaver, 1987) in the interactions of close relationships. This can also be described as emerging attachment patterns. According to the theory of attachment (Bowlby, 1988; Fraley & Shaver, 2000), experiences of attachment coalesce and develop into attachment behaviors that are patterned in both safe and frightening contexts. For example, infants experience a sense of felt safety when the caregiver is attuned and responsive to the infant’s every need (such as feeding, touch, and emotional connectedness) and is the primary source of comfort. Conversely, infants experience a sense of threat and feel frightened when a caregiver responds inconsistently or a caregiver responds with anger or aggression to the infant’s distress.

According to Bowlby (1973), attachment patterns (a) are a function of an individual’s lived experience, and (b) remain relatively stable from infancy to adulthood but may be open to revision through the lifespan. Primary or secondary attachment strategies (e.g., hyperactivating or deactivating) that lay the groundwork for evolving internalized working models thus give way to attachment styles. Viewed in this manner, the concept of attachment style reflects an individual’s typical attachment-related mental processes and relational behaviors in various relationships. This framework of interpersonal attachment style becomes the model that adults utilize to navigate social relationships (Fraley, 2002).

**Attachment Styles**

Although Bowlby (1973) attributed the attachment behavioral system as “normative” (i.e., as a means of regulation by way of proximity seeking) and cited differences in how individuals regulate their attachment behavior in response to threat, it was his colleague, Mary
Ainsworth, who systematically studied infant-caregiver separations and reunions that a formal understanding of these differences was articulated. Ainsworth theorized that primary attachment caregivers acting as a secure base provide a sense of security from which the infant will feel safe and confident to turn their attention to exploration and learning in the surrounding environment (Ainsworth et al., 1978). Ainsworth’s interest first led her to conduct ethnographic research in Uganda to observe the interactions among mothers and infants. Ainsworth extended this line of inquiry to a U.S. middle-class White sample, with the addition of a laboratory assessment referred to as the Strange Situation.

Based on Ainsworth’s previous work, the Strange Situation was developed as a laboratory study to observe individual differences between mothers and children in terms of attachment behaviors. The Strange Situation procedure consisted of eight brief episodes of separation and reunion between the mother and the child. First, the mother and child are introduced into the Strange Situation experiment room. Second, the mother sits on a chair while the child freely plays with toys for a period of 3 minutes. If the child initiates interaction, then the mother will respond. Third, a researcher (i.e., the stranger) enters the room, sits quietly for 1 minute, talks to the mother for 1 minute, and sits on the floor and engages the child for 1 minute. Fourth, the mother says “bye-bye” and leaves the room. Fifth, after 3 minutes, the mother returns (and the researcher quietly leaves), holds out her hands, and pleasantly says, “I’m back.” If the child wants to be picked up and comforted, the mother may do so but also persuades the child back to play. Sixth, the mother leaves the room for 3 minutes and the child is left alone. Seventh, the researcher enters the room for a 3-minute episode. If the child is distressed, the researcher comforts the child and tries to interest the child in play again. If the child will not be comforted, the researcher waits until the mother returns. Eighth, the mother returns (and the researcher
quietly leaves) and again holds out her hands and pleasantly says, “I’m back.” If the child wants comfort, the mother will provide it.

The laboratory study of the Strange Situation yielded mixed results. Approximately 60% of the children behaved according to Bowlby’s “normative” theory. In other words, when the caregiver left the room, these children became visibly upset but sought the mother upon her return and were soothed and comforted. These children exhibited a pattern of behavior that Ainsworth classified as secure. Another group of children (about 20% or less) were extremely distressed upon separation, but more importantly, when reunited with their mothers, they had a difficult time being comforted. These children were classified as anxious-ambivalent. Finally, the third group of children (about 20%) did not appear too distressed when separated and upon reunion, these children actively avoided contact with the mother, sometimes even resisting and turning away from her. Ainsworth classified these children as anxious-avoidant.

Following behavioral observations reflecting the caregiver-child attachment relationship, Ainsworth and colleagues (1978) delineated three primary attachment styles: (a) secure, (b) anxious-ambivalent, and (c) anxious-avoidant. In the Strange Situation, children classified as secure were initially distressed when separated from their mother, but upon reunion, they initiated contact, expressed joy and affection, and returned to play exploration (Ainsworth et al., 1978). Children classified as anxious-ambivalent exhibited hyperactivating strategies, such as intense crying and clinging to the caregiver when separated from their mother but bitterly protesting during reunion, making it difficult to be soothed. This classification style appears to be rooted in unpredictable and inconsistent caregiver responses. Last, children classified as anxious-avoidant exhibited deactivating strategies whereby they were less likely to cry during separation and might avoid the reunion without acknowledging the mother as they continued to play. The
anxious-avoidant attachment style employs these deactivating efforts in order to downregulate the attachment system in general ways when the individual approaches close relationships.

**Main and Solomon**

Expanding on Ainsworth’s model of attachment styles, Main and Solomon (1986) later added a fourth category of attachment referred to as insecure–disorganized/disoriented as applied to infant attachment behavior. With respect to Ainsworth’s classification system in the Strange Situation (Main, 1990; Main & Solomon, 1986), a group of children who did not display behaviors associated with the three organized patterns were then considered disorganized or “unclassifiable.” This group of children exhibited contradictory behavior or experienced a collapse of secondary attachment strategies. When approached by the caregiver upon reunion, some children in this group would turn their heads away from their mother, whereas other children sat completely motionless or would rock back and forth. Infants classified as insecure–disorganized/disoriented comprised approximately 15% of the cases in normative samples (Lyons-Ruth & Jacobvitz, 2008) from the Strange Situation. Later studies revealed that children classified with disorganized attachment styles often found their primary caregivers frightening either due to hostile or erratic responses or because the caregivers themselves had a history of trauma and/or abuse (Lyons-Ruth & Jacobvitz, 2008). These caregivers appeared to be overwhelmed, making them incapable of comforting the child with sensitivity and responsiveness during times of need. The child instinctively seeks security and safety from the primary caregiver, yet the caregiver is also a source of fear. As a result, this creates an internal dilemma for the child who then experiences the impulse to approach yet simultaneously withdraw from the caregiver.
Later Development of Attachment Models

Adult Attachment

Bowlby (1988) argued that attachment is fundamentally an emotional bond between infants and their primary caregivers. This becomes the template for later adult attachment relationships. A fundamental principle of attachment theory (Bowlby, 1969/1982) presumes that early attachment experiences with primary caregivers during times of need are encoded and coalesce into stored information of self and others, which forms the cognitive building blocks of an individual’s attachment orientation. These internal working models therefore guide thoughts, feelings, and behavior in subsequent close relationships (Bowlby, 1988).

Building on core components of attachment theory postulated by Bowlby and Ainsworth, Hazan and Shaver (1987; Shaver & Hazan, 1993) proposed that affectional bonds developed during infancy are carried over into the context of adult romantic relationships. This proposition is based on the idea that the development of early attachment styles is due in large part to interactions with early attachment figures. Furthermore, continuity in attachment style is primarily due to the persisting internal working models of self and other (Bowlby, 1973).

Hazan and Shaver (1987) suggested that adult romantic attachment relationships conceptually share similar emotional and behavioral dynamics with infant-caregiver attachment relationships. Typically, for example, adults feel more secure when their romantic partner is close and responsive. Moreover, adults rely on their romantic partner for protection and comfort during times of distress or threat. Although Bowlby and Ainsworth acknowledged the role of attachment in the context of adult romantic relationships, Hazan and Shaver were the first researchers to explore individual differences in the context of adult romantic relationships. Thus,
they adopted Ainsworth’s three-category model of attachment styles—secure, avoidant, and anxious-ambivalent—to examine how adults feel, think, and behave in romantic relationships.

In a landmark study, Hazan and Shaver (1987) examined the relationship of the affectional bond between infant-caregiver attachment and how this translates to adult romantic attachment. Two studies were conducted based on responses from 620 participants. Self-report questionnaires revealed three major findings. First, there is close similarity of attachment style in adulthood and infancy. Across both studies with respect their romantic relationships, approximately 56% of the participants were classified as secure, 24% avoidant, and 20% anxious-ambivalent (Hazan & Shaver, 1987). Similarly, based on prior findings, infant classifications approximate that 62% are classified as secure, 23% avoidant, and 15% anxious-ambivalent (Campos et al., 1983). Second, in terms of experiences in romantic love, self-designated adult attachment styles differed in predictable ways in that they characterized their most important love relationship (Hazan & Shaver, 1987). Participants with secure attachment styles described experiencing high levels of happiness and trust in partners. Participants who identified with avoidant attachment styles described their romantic relationships by feelings of jealousy and fear of intimacy. Conversely, participants identified as anxious-ambivalent attachment style reported feeling obsession, with a strong desire for reciprocation and close connection. Last, attachment style was related to internal working models of self and social relationships in meaningful ways, such as early relationship experiences with primary caregivers (Hazan & Shaver, 1987). Thus, as expected, individuals with different adult attachment styles consider different beliefs about romantic love relationships such as availability and trustworthiness in addition to their own sense of worthiness.
Bartholomew’s Four-Category Model

Challenging Hazan and Shaver’s three-category model of individual differences in adult, romantic attachment patterns, Bartholomew (1990) reconceptualized adult attachment in terms of internal working models of self and others. Bartholomew posited that individuals adopt separate representational models of self and models of others that shape the way attachment behavior is organized. A model of self reflects both positive and negative self-appraisals. Individuals with a positive model of self view themselves as competent and worthy of love, whereas individuals with a negative model of self experience a lack of self-confidence and may be more vulnerable to emotional distress. A model of others reflects an individual’s beliefs and expectations about others in general and attachment figures in particular. Individuals with a positive model of others view close attachment figures as reliable and trustworthy. In a negative model of others, individuals view others as undependable and untrustworthy.

Adopting attachment typologies from Ainsworth et al. (1978), Hazan and Shaver (1987), and Main and Solomon (1986), Bartholomew (1990) derived four major attachment patterns that depict the positive and negative mental representations of self and others, as depicted in Figure 2. The four attachment patterns include the following: Individuals with a positive view of self and others are categorized as secure; individuals with a negative model of self and a positive model of others are preoccupied; individuals who hold a positive model of self and a negative model of others are dismissing; and individuals with a negative model of self and a negative model of others are classified as fearful.
Although Hazan and Shaver (1987) and Bartholomew (1990) conceptualized individual differences in romantic attachment from a categorical perspective, other researchers began seeking unanswered questions about attachment classifications in terms of dimensions versus categories. Fraley and Waller (1998) recognized that the methods for distinguishing categories and dimensions were not well suited. Thus, they explored the use of continuous rating scales and suggested using a taxonomy, developed by Meehl (1995), to distinguish latent categories from latent dimensions. Based on their findings, Fraley and Waller proposed that the categorical model was unsuitable when examining individual differences in romantic attachment patterns because this model forced participants to choose one category that best describes them, even if
more than one category seems appropriate (Simpson, 1990). Moreover, given the theoretical emphasis placed on the stability of attachment patterns, Baldwin and Fehr (1995) asserted that the value of the Pearson $r$ (approximately .40) was significantly low. As a result, the data indicated that the dimensional model aligned more consistently with individual differences in romantic attachment.

In an effort to identify an optimal dimensional model, Brennan et al. (1998) administered over 320 self-report items from a diverse sample of attachment inventories to ascertain similarities and differences among the measures. According to the findings, two underlying dimensions in individual differences of attachment patterns in romantic relationships of insecurity emerged: avoidance and anxiety. The anxiety dimension corresponds to anxiety and vigilance in regard to feelings of rejection and abandonment (Fraley & Shaver, 2000). The avoidance dimension corresponds to discomfort with closeness and dependence, resulting in a reluctance to be intimate with others (Fraley & Shaver, 2000). A low score in both the anxiety and avoidance dimensions is viewed as secure. Furthermore, secure may be defined as a stable sense of attachment security, trust in partners, expectations of partner availability and responsiveness, comfort with closeness and interdependence, and coping with threats and stressors in constructive ways. Although two primary underlying dimensions of individual differences in adult romantic relationship attachment provided researchers with a more refined understanding of attachment, further interest into the conceptualization of attachment led them to explore how adult measurement was measured.

**Methodological Critique of Adult Attachment Instruments**

Bowlby (1969/1982) and Ainsworth both asserted that attachment system behaviors developed during infancy will persist throughout the human lifespan. According to Bowlby,
attachment plays a “vital role,” throughout the lifespan “from cradle to the grave” (p. 208). According to attachment theory, two themes are critical when considering measurement. First, the attachment system is *normative*, applicable to all human development and active across the lifespan (Cassidy & Shaver, 2016). Second, *individual differences* exist in attachment behavior and interact with cognitive and emotional components (Cassidy & Shaver, 2016). Despite the salience of normative developmental aspects of the attachment system, the field has largely focused on individual differences in the organization of attachment behavior, cognitions, and expectations in regard to attachment relationships.

Initial efforts to examine individual differences in attachment began with Bowlby’s and Ainsworth’s primary focus on the infant-caregiver relationship (Ainsworth, 1989) and developmental roots of the attachment system. Yet by the mid-1980s, the groundwork was laid for further exploration of the attachment system in adolescents and adults. Subsequently, researchers began to examine how early attachment experiences are consolidated and therefore impact the perceptions of adult close relationships (Mikulincer & Shaver, 2016). As a result, methods for assessing the nature of individual attachment styles were developed and reside within two primary categories: semi-structured interviews (e.g., Adult Attachment Interview [AAI]) or self-report questionnaires.

**Semi-Structured Interview**

Designed to parallel the Strange Situation, Main and colleagues (George et al., 1996; Main et al., 2003) formulated the Adult Attachment Interview (AAI) for developmental purposes and clinical applications. In general, the AAI assesses adults’ attachment based on their narrative of childhood relationships with parents and how those experiences in turn have affected their later development. Specifically, the AAI elicits adults’ encoded mental representations (i.e.,
internal working models) of attachment, based on those early attachment-related experiences (George et al., 1996). Since internal working models operate somewhat outside of conscious awareness, the interview is designed to “surprise the unconscious” (George et al., 1996, p. 3) by focusing on earlier memories through the lens of adult cognitive thinking (Crowell et al., 2016) and allowing numerous opportunities for the interviewee to elaborate on, contradict, support, or fail to support previous statements. For example, the interviewer asks, “When you were upset as a child, what did you do?” (George et al., 1996). This is a critical question in the interview and variations on interpretations are quite important, especially how the participant thinks about one’s own interpretation of “upset.” The interviewer will then proceed to ask specific follow-up questions in order to gain greater depth of each question. If the participant, for example, responds by saying, “I withdrew,” the interviewer will probe further to understand what this participant means by “withdrew” (George et al., 1996).

In terms of attachment orientation, personal narratives could thus be categorized into one of four “states of mind”: (a) secure/autonomous, (b) insecure/dismissing, (c) insecure/preoccupied, and (d) disorganized/unresolved (George et al., 1996). According to the participant’s appraisal of content, discussions around early childhood experiences reveal either patterns of coherent narratives or incoherent/confused narratives (Mikulincer & Shaver, 2016). Coherent narratives concerning early childhood experiences with caregivers are generally illustrative of securely attached adults, whether the narrative was tangential in nature or relatively consistent, whereas incoherent/confused narratives, marked by a dismissive, short answer, suggest insecure attached adults, whereby a discrepancy exists between the participant’s experience and the reported parental response.
After scoring and classifying AAI interviews, analysis consists of systematically marking the transcript text in terms of an adult’s current state of mind with respect to earlier life experiences (Main, 1990). The semi-structured, hour-long interview focuses on the coherence and clarity of the interviewee’s narratives that describe early caregiver relationships and their subsequent effect on later relationships, thus becoming the principal focus of the AAI analyses. Based on differences of early childhood experiences with caregivers, transcribed verbatim responses are systematically assigned to into three primary categories (secure, dismissing, and preoccupied) paralleling Ainsworth’s three-category model of infant attachment (Main, 1990; Main et al., 2003). More recently, the following two categories have been added: unresolved for loss or abuse experiences and cannot classify (Hesse, 2008).

An individual’s capacity to understand oneself and others in terms of mental states has been shown to predict attachment status in an infant from the parent’s AAI and to predict important aspects of later adult development. In terms of assessing reflective functioning, AAI interviews deemed secure are frequently characterized by a high degree of mentalization. This high capacity to mentalize is related both to secure attachment with primary caregivers and to the ability to understand one’s own and other’s mental states, in other words, individuals possessing the ability to intuit self and others’ feelings and thoughts that underlie behavior. Interviewees categorized as dismissing are marked by an inability to consider abstract mental states for self and others and are characterized by concrete, rigid thinking (hypo-mentalizing). Although preoccupied interviewees consider self and others’ mental states, they are characterized by the propensity to excessively mentalize with such bombastic certainty there is no room for any ambiguity (hyper-mentalizing). Although the AAI is considered the gold standard of adult and
adolescent attachment assessment, it is a lengthy, complex, impractical, and expensive endeavor requiring extensive clinical training to administer, transcribe, and code (Brennan et al., 1998).

**Self-Report Questionnaire**

Due to the cumbersome nature and specialized training to administer and score the AAI, attachment researchers developed a number of self-report questionnaires to assess an individual’s attachment organization in regard to attachment relationships. Self-report questionnaires typically assess an individual’s conscious perceptions and feelings of either past or current experiences in close attachment relationships (Bartholomew & Shaver, 1998). Although self-report questionnaires have been used primarily for the study of experiences in romantic or close relationships, in recent years, they have extended to the context of psychotherapy.

Expanding on their seminal work, Hazan and Shaver (1987) developed a brief self-report questionnaire to tap into individual differences in how adults think, feel, and behave in the context of their romantic relationships. In this questionnaire, individuals are asked to read three short descriptions of thoughts, emotions, and behaviors related to romantic relationships and to select the one that best described themselves. Adopting Ainsworth’s three-category model from the Strange Situation, the multi-sentence descriptions represent three adult attachment types: secure, avoidant, and anxious-ambivalent. Subsequently, many researchers thus implemented the Hazan and Shaver three-category model precisely because of its simplicity while also offering the benefits of face validity, convenience, brevity, and ease of administration.

Following Hazan and Shaver, Bartholomew and Horowitz (1991) developed the Relationship Questionnaire (RQ), a four-item self-report questionnaire designed to measure adult attachment style. Extending the three-category model, Bartholomew and Horowitz adopted similar wording from Hazan and Shaver’s (1987) descriptions of each of the attachment styles;
However, they bifurcated the avoidant style into two distinct dimensions. The first dimension, fearful avoidance, reflects Hazan and Shaver’s insecure avoidant category and is characterized by individuals who avoid intimacy out of fear of rejection. The second dimension, dismissing avoidance, is characterized by individuals who avoid intimacy and are highly self-reliant and independent.

Implementing content from both the three-category model and the RQ, Griffin and Bartholomew (1994) developed the Relationships Styles Questionnaire (RSQ). The RSQ is a 30-item self-report questionnaire scaled to produce an individual score in each of the four attachment styles. Due to nature of multiple items, the RSQ has demonstrated somewhat higher reliability ($r$ = approximately .65 in each of the four attachment styles; Fraley & Shaver, 2000) compared to the RQ. Moreover, the RSQ specifically scores individuals on Bartholomew’s (1990) two dimensions (i.e., model of self and model of other) that underlie these attachment patterns.

Following this, sheer numbers of self-report measures emerged in the literature leaving researchers with a perplexing plethora of options (Brennan et al., 1998). To address this dilemma, Brennan et al. (1998) compiled all existing self-report measures and administered the nonredundant items to a sample of 1,086 undergraduate students. A large pool of items captured major themes in attachment. Brennan et al. conducted a factor analysis, which revealed the following seven factors: ambivalence, anxious clinging to partner, jealousy and fear of abandonment, frustration with partner, proximity seeking, self-reliance, and trust. Based on their analyses, Brennan and colleagues developed the Experiences in Close Relationships (ECR) scale, a 36-item self-report that best assessed the two attachment dimensions of anxiety and avoidance. The ECR scale allows researchers to assign adult participants into a two-dimensional
attachment style. Eighteen items of the ECR uniquely address the anxiety dimension, and the remaining 18 items, the avoidance dimension. The ECR and its derivatives (e.g., ECR-revised [ECR-R], Fraley et al., 2000; ECR-Short Form, Brennan et al., 1998) have become the most widely used measure of adult attachment in personality, social psychology, and attachment research providing the benefits of excellent psychometric properties with Cronbach alphas of .85 or higher.

Client Attachment in Psychotherapy

Client Attachment and the Working Alliance

Just as attachment instruments have been developed through the lens of attachment theory, this also offers a useful framework within which to explore the relationship between client attachment and the working alliance (i.e., therapeutic relationship). In a seminal paper, Bordin (1979) asserted that the working alliance could be understood as the therapeutic interaction (or real relationship) and may be generalized across all theoretical orientations and specific techniques. According to Bordin, the working alliance is conceived of and includes three dimensions: (a) therapist and client agreement on the goals of therapy; (b) therapist and client agreement on the tasks of therapy to achieve the goals; and (c) therapist-client emotional bond of respect, trust, and attachment that is foundational for achieving the goals and therapeutic tasks. Developed from Bordin’s initial conceptualization, the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989) has become the most widely utilized measurement of the working alliance, specifically used to assess the strength of the therapist-client relationship. The alliance between therapist and client is one of the most investigated process factors in relation to predicting the outcome of psychotherapy in general and is considered a vital common factor. In a recent meta-analysis covering more than 30,000 treatments, the therapeutic alliance emerged as a
robust predictor of psychotherapy outcome (Flückiger et al., 2018; $r = .278$). Although there are numerous conceptualizations, the working alliance is broadly defined as the collaborative and affective bond between therapist and client.

Given the central role of the working alliance in therapy, psychotherapy researchers have explored several key predictors. While demographic factors seem to play little to no influence on the working alliance, client interpersonal characteristics (e.g., degree of openness and neuroticism) most strongly predict the quality of the working alliance (Norcross, 2011). Thus, the formation of the working alliance involves both therapist and client. Bowlby (1988) likened the therapeutic relationship (i.e., working alliance) to an attachment relationship whereby the therapist functions as an attachment figure by cultivating a secure base for the client and a safe environment from which clients are capable of more self-exploration. Therefore, utilizing attachment theory as a means to understand clients’ interpersonal characteristics is a helpful vehicle by which to explore the therapeutic alliance.

When examining individual differences in the context of psychotherapy, empirical evidence places significant emphasis on how client characteristics, specifically attachment styles, impact the development of the working alliance (Eames & Roth, 2000; Kanninen et al., 2000; Mikulincer & Shaver, 2016; Parish & Eagle, 2003). Moreover, the majority of attachment research has focused on clients’ attachment and how it relates to clients’ perceptions of the therapeutic relationship. According to Mikulincer and Nachshon (1991), securely attached clients are more amenable to self-exploration, which fosters a strong working alliance that may then be maintained despite impending therapeutic ruptures. On the other hand, insecurely attached clients (i.e., high attachment anxiety and/or high attachment avoidance) are likely to avoid forging an emotional connection or worry excessively about the nature of the therapeutic
relationship, thus having a detrimental impact on the quality of the working alliance (Eames & Roth, 2000; Mallinckrodt et al., 2005; Parish & Eagle, 2003).

An initial wave of psychotherapy research focused on examining the relation between the client’s attachment style and the strength of the working alliance using a range of attachment measurements (e.g., AAI, ECR, and its derivatives). Overall findings from three recent meta-analyses (Bernecker et al., 2014; Diener et al., 2009; Diener & Monroe, 2011) revealed statistically significant correlations ($r = .12$ to $.17$) in the relation between client attachment orientations and client-reported working alliance ratings. That is, the findings from these reviews provide empirical evidence that securely attached clients exhibited higher ratings of the working alliance compared to insecure clients (i.e., high attachment anxiety and/or high attachment avoidance). While these findings may confirm that securely attached clients demonstrated stronger working alliances compared to insecurely attached clients, one should be cautious in light of the small-to-medium effect size. In addition, other factors should be taken into consideration that are contributing to the formulation quality of the working alliance, such as the therapist interpersonal factors of attachment styles.

In a recent meta-analysis of 17 studies, Diener and Monroe (2011) found that client attachment security was positively related to a stronger working alliance, whereas client attachment insecurity was related to poorer working alliance ratings. After taking into account the effects of treatment type, attachment researchers have highlighted differences in working alliance measure, attachment measure, and length of treatment. Diener and Monroe reported that client ratings of the working alliance were more strongly associated with client attachment style compared to therapists’ ratings of the working alliance. One explanation for the difference may
be that clients are more likely influenced by their attachment style when rating the quality of the relationship to the therapist.

**Client Attachment and Psychotherapy Outcome**

Over the past two decades, a wide range of empirical evidence has unwaveringly pointed to the strength of the working alliance as one of the most salient predictors of psychotherapy outcome (Askjer & Mathiasen, 2021; Eames & Roth, 2000; Horvath et al., 2011; Mallinckrodt, 2000; Martin et al., 2000; Miller et al., 2013). In fact, the quality of the working alliance has been shown to be the most robust predictor of psychotherapy outcome with alliance-outcome effect sizes ranging from .22 to .26 (Flückiger et al., 2018; Horvath & Bedi, 2002; Horvath et al., 2011; Martin et al., 2000). When considering differences in the working alliance between clients and therapists, psychotherapy researchers argue that clients’ perspectives of the working alliance are a far better predictor of therapy outcome compared to therapists’ perspectives (Horvath & Bedi, 2002; Horvath & Luborsky, 1993). In a meta-analysis examining working alliance time point and rater, Cameron and colleagues (2018) found that the working alliance was weaker for therapist raters compared with clients and observer raters. The findings in this meta-analysis are consistent to previous research that suggests both client-rated and observer-rated working alliance measures are superior predictors of outcomes in psychotherapy compared to therapist-rated measures (Horvath & Symonds, 1991). In considering the differences between working alliance outcome relationships according to rater, one explanation may be that the therapist’s knowledge and role in therapy is different such that they are unknowingly viewing the working alliance in terms of their theoretical orientation knowledge and clinical experience. On the other hand, perhaps clients are more likely to rate based on their direct felt experience.
Several researchers have further explored how client attachment styles may influence the outcome of psychotherapy (Byrd et al., 2010; Cyranowski et al., 2002; Fonagy et al., 1996; Wiseman & Tishby, 2014). A review of these studies (Berant & Obegi, 2009) suggests that securely attached clients (i.e., low attachment anxiety and avoidance) were more likely to benefit from psychotherapy compared to insecurely attached clients (i.e., high attachment anxiety or attachment avoidance). There was variability, however, across the results of the studies whereby Cyranowski et al. (2002) and Fonagy et al. (1996) noted that low attachment anxiety and attachment avoidance (i.e., secure) did not result in significant clinical improvements compared to other attachment styles.

In order further understand this variability in findings, Levy et al. (2011) conducted a meta-analysis across 14 studies ($n = 1,467$) using the RSQ and ECR as a measurement of attachment to compare client attachment style and psychotherapy outcome. Levy and colleagues found that securely attached clients exhibited more favorable outcomes, whereas clients with preoccupied/anxious attachment style predicted a more difficult and potentially less helpful course of treatment. Additionally, client attachment avoidance was not significant to psychotherapy outcomes.

The findings from this meta-analysis appear to reflect the trend throughout the process and outcome literature and are quite consistent with attachment theory. Namely, clients with avoidant attachment styles are less impacted by therapeutic relationship and the course of therapy itself, whereas clients with anxious/preoccupied attachment styles have more stormy therapeutic relationships and poor overall outcomes. While not entirely conclusive, these findings seem consistent with the body of literature on the influence of client attachment style on
psychotherapy outcome, such that anxious/preoccupied clients fare far worse in therapy compared to avoidant clients whose outcomes appear more ambiguous.

**Therapist Attachment, the Working Alliance, and Psychotherapy Outcome**

Although individual therapists’ differences contribute to the largest portion of outcome variability, the majority of prior research on attachment has focused primarily on clients’ attachment and how it relates to how clients perceive the therapeutic relationship (i.e., working alliance) (Byrd et al., 2010; Cyranowski et al., 2002; Wiseman & Tishby, 2014). Thus far, relatively less research has focused on the contribution of therapists to the working alliance and psychotherapy outcome. There is growing recognition in the literature that secure client attachment is associated with a better working alliance and more favorable psychotherapy outcome (Diener & Monroe, 2011; Smith et al., 2010). An increasing number of studies, however, have begun to explore the effect of therapist attachment on the working alliance and psychotherapy outcome. Given that the quality of the therapeutic relationship is among the most robust predictors of psychotherapy outcome (Wampold, 2001), attachment researchers have begun to explore the how therapists may influence the working alliance and ultimately more positive therapy outcomes. While the formation of an effective working alliance involves both client and therapist characteristics, there is widespread agreement in the literature that the therapist’s capacity to “promote a facilitative therapeutic relationship” (Ackerman et al., 2001, p. 495) is vital to the success in psychotherapy (Wampold, 2015).

**The Attachment Relationship in Psychotherapy**

Bowlby (1988) equated the therapeutic relationship to an attachment relationship whereby the therapist serves as an attachment figure. From an attachment-informed perspective, the therapist’s overarching goal is the formation and maintenance of a therapeutic relationship
in order to provide a secure-base and facilitate the client’s discovery and autonomous exploration (Mikulincer et al., 2013). According to Bowlby (1988), in doing so, the therapist strives to be “reliable, attentive, and sympathetically responsive to [patient’s] exploration . . . to feel the world through his [sic] patient’s eyes, namely to be empathic” (p. 152). Therefore, when clients feel safe in the context of the therapeutic relationship, the therapist most often becomes the source of the client’s proximity seeking, comfort, and security (Mikulincer & Shaver, 2016).

Although internal working models are hypothesized to be self-perpetuating, there is evidence to show that changes in attachment can occur in either a positive or negative direction as a result of life stressors and changes in instrumental relationships (Waters & Cummings, 2000). Bowlby (1988) argued that the psychotherapy relationship may provide an important mechanism to help the client move from insecure to increased security. Bowlby proposed that the role of the therapist is to act as an attachment figure by creating a secure base to enable increased trust, provide a corrective emotional experience, and disconfirm insecure working models. According to Taylor et al. (2015), clients can develop more secure attachments as a result of therapy.

Attachment researchers have investigated the hypothesis whether therapists may serve the function of an attachment figure and question whether the therapeutic relationship may be even considered an attachment relationship. Mallinckrodt (2010) described five key characteristics of attachment relationships and reviewed evidence to evaluate whether the therapeutic relationship met these criteria. An attachment figure (1) is a target for proximity seeking, (2) is a safe haven to provide comfort in times of distress, (3) provides a sense of security from which the individual can explore, (4) is a source of comfort when the attachment figure is not available, and (5) is
stronger and wiser than the individual. Mallinckrodt presented evidence that provides empirical support for the first four criteria (Janzen et al., 2008; Joyce et al., 2007; Romano et al., 2008; Vogel & Wei, 2005) and argued that the fifth element is not essential for adult attachment relationships. Mallinckrodt concluded that although therapeutic relationships will not always meet these criteria, therapeutic relationships do have the capacity to be attachment relationships with the potential to modify insecure internal working models.

While proximity seeking has been a mechanism to activate the attachment system, it has been reconceptualized through research inquiry of Talia et al. (2018) to consider epistemic trust. From a theoretical perspective, perhaps therapists who meet the attachment needs of clients—becoming the target of proximity seeking, a source of comfort and security, and able to cultivate epistemic trust—may be those with secure attachment. Conversely, therapists with insecure attachment may be less likely to provide accurate empathic validation, to understand the client’s mental states, and may oftentimes become distracted by their own intrapersonal distress (Mikulincer & Shaver, 2016). For example, more dismissing therapists tend to exhibit less empathy and lack emotional depth in their interventions with clients. Contrary to dismissing therapists, preoccupied therapists may feel frustrated if the client is not emotionally connecting with them (Daniel, 2014). Therapists with a secure attachment orientation, however, appear able to effectively serve as a secure base, attune to the client with empathic validation, and formulate a strong and effective working alliance (George & Solomon, 1999; Mikulincer & Shaver, 2016).

For some therapists with secure attachment orientations, providing a secure base may also be associated with a secure state of mind or capacity for mentalization. Attachment contexts such as psychotherapy provide the ideal conditions to foster mentalizing. Early childhood caregivers who accurately and sensitively respond to a child’s experiences enhance
the child’s ability to mentalize their own and other people’s experiences (Fonagy et al., 1996). Similarly, therapists with high mentalizing ability are able to reflect on clients’ internal states and provide an accurate interpretation in a way the client can understand and potentially model in other contexts. Furthermore, it has been argued that this ability to mentalize mediates between the internal working model of the therapist and the attachment processes of the client within the therapeutic relationship (Fonagy & Bateman, 2006). Thus, therapists with secure attachment styles would, in theory, be more likely to create a stronger worker alliance compared to their insecure peers.

In an effort to address the influence of therapists, Dozier et al. (1994) were the first to examine the relationship between therapists’ attachment styles and psychotherapy. Using coded AAI transcripts from a sample of case managers, Dozier and colleagues found that clinicians with an avoidant attachment classification intervened in less depth and perceived less dependency needs in the client. On the other hand, participants with an anxious attachment orientation were found to intervene in greater depth and perceive greater dependency (Dozier et al., 1994). In other words, Dozier and colleagues concluded that the case managers relied on their own internal model of others when perceiving the client in the therapy relationship.

In a recent systematic review of 11 studies, Degnan et al. (2016) reported that together these studies illuminate significant evidence between therapists’ security and the working alliance. In examining the relationship between therapist attachment and alliance, all of the studies used correlation or regression analyses. Taken together, nine reported statistically significant findings.
Effects of Therapists’ Secure Attachment on the Working Alliance

In examining the effects of therapists’ attachment security and the quality of the working alliance, three of the seven studies found small-to-medium significant, positive correlations between therapists’ attachment security on the quality of the working alliance (Black et al., 2005; Bruck et al., 2006; Dunkle & Friedlander, 1996). It is important to consider that the data were collected from different settings: (a) survey of therapists (Black et al., 2005), (b) randomized controlled trial of therapists and outpatients at a psychiatric medical center (Bruck et al., 2006), and (c) survey of therapist-client dyads from university counseling centers (Dunkle & Friedlander, 1996).

Although these findings demonstrated that therapists’ secure attachment was associated with a reported higher level of working alliance, results should be considered with caution. First, of the two studies that demonstrated significant findings using early session ratings of the working alliance, one measured the general overall working alliance (Bruck et al., 2006) and the other study measured components of the working alliance (Dunkle & Friedlander, 1996). On the other hand, Black and colleagues (2005) measured therapists’ reports of their clients in general as opposed to specific clients in particular with later session ratings. Second, although there was a significant positive relationship found on therapists’ attachment security and the working alliance from therapist-rated working alliance scores (Black et al., 2005; Bruck et al., 2006), only Dunkle and Friedlander (1996) demonstrated significant findings in relation to the client-rated working alliance scores.

Effects of Therapists’ Insecure Attachment on the Working Alliance

When considering the effects of therapists’ attachment insecurity and the quality of the working alliance, of the 11 reviewed studies (Degnan et al., 2016) only three found an
association between therapists’ insecure attachment styles and the quality of the working alliance (Black et al., 2005; Dinger et al., 2009; Sauer et al., 2003). For example, Black and colleagues (2005) found small negative correlations between therapists’ insecure attachment style and the general quality of the working alliance. Moreover, therapists with high attachment avoidance and anxiety reported more difficulties with their clients and weaker therapists’ self-report of working alliance.

Overall findings from the remaining two studies (Dinger et al., 2009; Sauer et al., 2003) suggest that therapists’ attachment anxiety may have a negative effect on the development of the early working alliance when measured by the client. First, Sauer and colleagues (2003) found that although a positive relationship exists between therapists’ attachment anxiety and client-rated working alliance at the first session, as therapy progressed, therapists’ attachment anxiety hindered the working alliance over the course of therapy. The authors hypothesized that perhaps more anxiously attached therapists exert more initial effort early on in the process of therapy due to their own hyperactivating attachment strategies (Sauer et al., 2003). Second, Dinger and colleagues (2009) replicated the previous study and found that higher therapist attachment anxiety was associated with lower working alliance scores, and the decline in client improvement of symptoms over the course of therapy was indicated by anxiously attached therapists who demonstrated interpersonal distress before the onset of the therapy sessions. These findings shed light on the complex function of therapists’ attachment anxiety and how it may influence the nature of the working alliance at different stages in the therapy process. Thus, whereas some findings support a relationship between therapists’ insecure attachment style and the working alliance, other researchers have found no therapist effect for insecure attachment style on the ratings of the working alliance.
Therapist Attachment Style on Psychotherapy Outcome

In addition to the effect of therapists on the working alliance, researchers have begun to examine the relationship between therapist attachment style and psychotherapy outcome. In a recent systematic review of 11 studies, Degnan and colleagues (2016) reported preliminary evidence of a relationship between therapist attachment security and improved outcomes in two of the 11 reviewed studies.

Effects of Therapists’ Secure Attachment on Psychotherapy Outcome

First, Bruck and colleagues (2006) found a direct significant relationship between therapists’ secure attachment style and improved client psychotherapy outcomes whereby higher attachment security (as measured by the RSQ) was moderately correlated with improved client-reported interpersonal problems. Second, Schauenburg and colleagues (2010) also reported that higher therapist attachment security was associated with clients’ improved post-therapy symptoms. Overall, these findings indicate that therapists with secure attachment may be better equipped to meet the needs of more severely distressed clients, which then impacts the working alliance and thus improved psychotherapy outcomes.

Effects of Therapists’ Insecure Attachment on Psychotherapy Outcome

Four of the 11 studies (Bruck et al., 2006; Schauenburg et al., 2010; Tyrrell et al., 1999; Wiseman & Tishby, 2014) examined the effects of therapist insecure attachment on outcome. Of the four studies, only one study found a direct relationship between therapist insecure attachment and a decline in therapy outcomes when reported by clients with severe psychiatric diagnoses (Bruck et al., 2006). For example, Bruck and colleagues (2006) found small-to-medium correlations between both high therapist attachment anxiety and high therapist attachment avoidance (as measured by the RSQ) and poor client global functioning.
Overall, a body of psychotherapy research has provided initial support to suggest that therapist attachment style is important to the therapeutic endeavor. Despite some burgeoning evidence in the literature suggesting that therapists’ secure attachment orientations may be more effective, it is still relatively unknown what specific therapist personal characteristics contribute to secure attachment orientations.

**Conclusion and Purpose of the Study**

The aforementioned literature review provides an extensive overview of the evolution of attachment theory and its unique application in the therapeutic context, specifically the effects of therapist contribution to the working alliance and ultimate psychotherapy outcome. Given the salience of the working alliance in relation to psychotherapy outcomes, a large body of literature has focused on identifying key components that improve the working alliance over the course of therapy. While psychotherapy researchers have provided preliminary evidence to suggest general factors that influence the development and quality of the working alliance (Norcross, 2011), much less is known about how specific therapist factors or characteristics impact the therapeutic outcome. To improve our current understanding, in this study I explored the unique relationship between therapists’ attachment style, mentalizing capacity, and the quality of the working alliance in the context of therapeutic outcomes.

Prior research has revealed discrepancies in the effects that therapists’ attachment styles have on the working alliance and subsequent treatment outcomes. Although several studies provide preliminary evidence to suggest that therapist attachment security is associated with client-rated working alliance scores (Black et al., 2005; Bruck et al., 2006; Dunkle & Friedlander, 1996), especially with client severity of symptoms (Schauenberg et al., 2010), there
is also evidence to suggest no association between therapists’ attachment style and client-rated working alliance and therapy outcomes (Ligiéro & Gelso, 2002; Petrowski et al., 2011).

Several potential explanations may account for these discrepancies. First, the aforementioned studies reflect a diverse range of validated instruments to measure attachment, which potentially addressed different underlying constructs. Some researchers have used different measures of self-report questionnaires (e.g., ECRS, RSQ, and ASQ), while other studies relied on a semi-structured interview measure (e.g., AAI). Self-reports, such as the ECR, target an individual’s perception of general experiences in close or romantic relationships, whereas the widely used AAI, considered the gold standard for adult attachment measures, is specifically assessing an individual’s state of mind (i.e., internal working models) as it relates to early autobiographical childhood memories. Perhaps our current knowledge has become muddied by difficulty of accurately measuring therapists’ attachment-related behaviors in the context of psychotherapy.

Second, the studies reflect that the working alliance was measured using a variety of instruments (e.g., WAI, HAQ, IES, and ARM). Moreover, the studies varied in utilizing client, therapist, client-therapist, or observer-reported working alliance scores. In addition, the working alliance was measured at various points across time over the course of psychotherapy. In the first systematic review to explore the relationship between the working alliance and psychotherapy outcome, Cameron and colleagues (2018) examined the effect sizes for the working alliance at early, mid, and late points in CBT treatment for depression. The authors reported the mean effect sizes for the relationship between the working alliance and therapy outcome measured at early, mid, and late in treatment as follows: $r = 0.21$ (95% CI [.12–.31]); $r = 0.28$ (95% CI [.11–.43]); and $r = 0.27$ (95% CI [.13–.40]) found that the strength to the working alliance when measured
mid and late in treatment is marginally higher compared to earlier ratings. This may suggest that individual perception of the quality of the working alliance depends on the different phase of therapy. Third, taken together, the studies differed in the instrument used to assess psychotherapy outcome and the phase of therapy in which outcome measures were collected.

In addition to our limited understanding of therapist attachment as it relates to the working alliance and psychotherapy outcome, there is a paucity of knowledge as to how therapist mentalization capacity affects the outcome of therapy. To my knowledge, only one study in the existing literature has examined the underlying influence of therapists’ mentalizing capacity on the working alliance and outcome of therapy.

The purpose of this study was to examine the relationship between therapists’ attachment classifications and underlying mentalizing ability on the quality of the working alliance over the course of treatment and ultimately the outcome of psychotherapy. Although there is preliminary evidence to suggest that therapist attachment orientation is important, inconsistent findings limit convincing conclusions. Two factors may be contributing to these findings: (a) the lack of an instrument that measures therapist attachment in the context of a psychotherapy session, and (b) the need to understand the relationship between therapist mentalization and attachment orientation on psychotherapy outcome.

Given the inconsistencies of previous findings of therapists’ attachment styles on the quality of the working alliance and subsequent therapy outcomes, extending this research may contribute to a growing body of knowledge and improve our approach to measuring adult attachment in the context of psychotherapy. Additionally, considering the scarcity of knowledge into the underlying influence of therapists’ mentalizing on therapy outcome, this factor will also provide greater insight to therapists’ effect on the working alliance and psychotherapy outcome.
Prior psychotherapy research in this domain has relied primarily on self-report measures and interview methods that may limit psychotherapy researchers’ ability to accurately examine the mechanisms of change that transpires within the actual therapy session. Most recently, Talia and colleagues (2018) have validated the Therapist Attunement Scales (TASc; Talia & Muzi, 2017) to specifically measure therapist attachment in the context of interpersonal functioning as it relates to particular narrative patterns. This scale measures moment-by-moment changes in therapists’ discursive relational behavior in therapy. Second, I examine the influence of therapists’ mentalizing capacity. Measuring the capacity to mentalize has been previously accomplished by using a time-intensive, interview-based Reflective Functioning Rating scale (Fonagy et al., 1998). Most recently, Fonagy and colleagues developed a more practical tool of self-report measure (Reflective Functioning Questionnaire, RFQ, Fonagy & Luyten, 2016).

Overall, this line of exploration has the potential to ignite and revolutionize how we train therapists and thus the impact of subsequent psychotherapy outcome. By providing a more nuanced understanding of factors related to therapist differences and adult attachment measures in the context of psychotherapy, this study may help psychotherapy researchers and clinicians begin to effectively remedy some of the ongoing discrepancies.

The following research questions guided this study:

1. Do therapist trainees’ clients produce larger reductions in psychological distress over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?

2. Do therapist trainees’ clients produce better ratings of the working alliance over time as a function of therapist trainees’ global scores of general attachment security (i.e.,
Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?

3. What is the relationship between therapists’ global scores of general attachment security (i.e., Balance) and therapists’ reflective functioning scores (i.e., Certainty and Uncertainty)?

In order to answer the research questions, the present study tested the following hypotheses:

1. It is expected that client’s scores of psychological distress will be significantly lower over time for therapist trainees with global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching).

2. It is expected that client’s scores of the working alliance will be significantly higher over time for therapist trainees with global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching).

3. It is expected that there would not be an association between therapist trainees with global scores of general attachment security (i.e., Balance) and suboptimal mentalizing (i.e., Certainty and Uncertainty).
CHAPTER II
METHODS

The purpose of this study is to examine how the effects of therapist trainees’ individual characteristics of attachment classification and the underlying capacity of mentalization influence are associated with psychotherapy outcome. The following research questions were investigated:

1. Do therapist trainees’ clients produce larger reductions in psychological distress over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?

2. Do therapist trainees’ clients produce better ratings of the working alliance over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?

3. What is the relationship between therapists’ global scores of general attachment security (i.e., Balance) and therapists’ reflective functioning scores (i.e., Certainty and Uncertainty)?”

In this chapter, I define the major constructs, describe the participant sample, discuss the instruments used, and explain the procedures involved in recruiting participants, collecting data, and planning for the analyses. The chapter is divided into five sections beginning with defining the major constructs examined in this study. The second section describes what characteristics
make up the participant sample. The third section provides information regarding the instruments used in the study. The fourth section details how data were collected. Finally, the last section addresses analyses of the data. A summary concludes the chapter.

**Definitions of Major Constructs**

**Attachment**

Bowlby (1969/1982) developed a theory of attachment as a proposed framework for understanding interpersonal relational patterns among individuals that explain the universal human propensity to prefer familiar, safe relationships when individuals are distressed. Thus, attachment in this context refers to an enduring connection one individual has with another who fulfills the basic human needs of comfort and safety (Obegi & Berant, 2009). The Therapist Attunement Scales (TASc), which analyzes a therapist’s level of attunement and attachment based on the occurrence of distinct communication markers during a single therapy session, was used for the purposes of assessing therapist trainee attachment in this study.

**Mentalization**

Mentalizing, also known as “reflective function,” is defined as “the mental process by which an individual implicitly and explicitly interprets the actions of oneself and others as meaningful on the basis of intentional mental states” (Bateman & Fonagy, 2019, p. 3). The Reflective Functioning Questionnaire (RFQ) is an easy-to-administer screening measure of mentalizing that was utilized to measure therapist trainees’ mentalizing.

Mentalization may be conceptualized as the capacity to perceive, understand, and interpret both the self and other in terms of underlying or internal mental states expressed as needs, feelings, beliefs, wishes, goals, desires, and attitudes (Fonagy et al., 2002). Mentalization
involves both cognitive and affective aspects. The capacity to mentalize plays a crucial role in the development of attachment security.

**The Working Alliance**

Greenson (1976) conceived the working alliance as an essential component for effective therapy, which is broadly defined as the positive collaboration between therapist and client. Subsequently, Bordin (1979) conceptualized the working alliance as a collaborative enterprise achieved by the therapist and client, which entails three domains: (a) agreement on the goals of treatment, (b) agreement on the tasks necessary to achieve the goals of treatment, and (c) quality of the bond between the therapist and client. The Working Alliance Inventory – Short Revised (WAI-SR) is a recently refined measure that was utilized to measure a client-rated working alliance in this study.

**Psychotherapy Outcome**

The outcome of psychotherapy is conceptualized as a result of the client’s progress throughout the course of therapy and following the termination of therapy treatment. Moreover, the outcome of therapy can be thought of as a change on the client’s initial level of psychological distress at intake as a result of therapy. Psychotherapy outcome is based on measuring three broad areas of a client’s mental health: (a) symptomatic distress, mostly depression and anxiety; (b) interpersonal problems with significant relationships; and (c) social role disturbance at work or school. The Outcome Questionnaire 45.2 (OQ-45.2) is a self-report inventory used to measure psychological progress in adult clients and was utilized in this study.

**Participants**

The participant sample was recruited from a university training clinic, located in a moderate-sized city (e.g., population ranging from 500,000 to 1 million) in the Midwestern
United States. The sample was comprised of graduate therapist trainees enrolled in a counseling practicum course. The total number of participants recruited to participate in this study was 54 graduate therapist trainees. Four participants declined to participate. During the recording process, a number of therapist trainees’ recorded sessions failed to provide accurate communication markers between the therapist trainee and the client due to poor audio quality. Additionally, only dyads of one therapist and client were included in the data set to reduce complexity in the analyses. Thus, the final working sample of participants consisted of 23 graduate therapist trainees who consented to participate in this study and provided information contained in the study packet.

**Demographic Information**

Participant demographic characteristics are listed in Table 1. The reported age of the participants ranged from 23 years old to 50 years old with a median age of 32.0 ($M = 33.96; SD = 7.813$).

Participants reported gender identities from three main subcategories: male, female, and self-identity. The male subcategory consisted of 26.1% of the participant sample ($n = 6$). The female subcategory consisted of 69.6% of the sample ($n = 16$). One participant (4.3%) reported self-identity, specifically reporting gender identity as non-binary.

In terms of the race/ethnicity category, participants responded to one of the following seven subcategories: (1) White, (2) Black/African American, (3) Asian/Pacific Islander, (4) Native American, (5) Hispanic/Latino, (6) Multiracial, and (7) Other. The White subcategory included terms such as “Caucasian” and “White/non-Hispanic.” The majority of participants were “White” (82.6%; $n = 19$). Four participants (17.4%) used the terms “Black” and “African American” to describe race/ethnicity. In terms of race and gender, this study was similar to many
previous studies in this area of research, whereby the sample was predominantly White and made up a higher proportion of women compared to men.

### Table 1

*Frequencies of Reported Demographic Characteristics of Therapist Trainee Participants*

<table>
<thead>
<tr>
<th>Category</th>
<th>( f )</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–24</td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td>25–34</td>
<td>11</td>
<td>47.8</td>
</tr>
<tr>
<td>35–44</td>
<td>6</td>
<td>26.1</td>
</tr>
<tr>
<td>45–54</td>
<td>4</td>
<td>17.4</td>
</tr>
<tr>
<td>55–64</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>65–74</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>6</td>
<td>26.1</td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>69.6</td>
</tr>
<tr>
<td>Self-Identity</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>19</td>
<td>82.6</td>
</tr>
<tr>
<td>Black/African American</td>
<td>4</td>
<td>17.4</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Native American</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Multiracial</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Other</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Relationship Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single (never married)</td>
<td>11</td>
<td>47.8</td>
</tr>
<tr>
<td>Remarried</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>Separated</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Married</td>
<td>7</td>
<td>30.4</td>
</tr>
<tr>
<td>Widowed</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Divorced</td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td>Partnered</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>4.3</td>
</tr>
</tbody>
</table>

*Note. N = 23.*
The category representing relationship status is shown in Table 1 and includes eight subgroups: single, remarried, separated, married, widowed, divorced, partnered, and other. Forty-eight percent of the sample \((n = 11)\) reported relationship status as “single.” Participants in the married subgroup \((n = 7)\) accounted for 30.4% of the sample. Nine percent of participants \((n = 2)\) responded to relationship status with terms such as “divorced.” One participant reported “remarried,” one selected “partnered,” and one chose “other” to describe relationship status.

**Therapist Trainee Professional Development Information**

Characteristics that describe therapist trainees’ professional development are listed in Table 2. Participants were asked to designate the graduate training program in which they were enrolled, *Counselor Education* or *Counseling Psychology* (CECP). The majority of the participant sample \((56.3\%; n = 13)\) reported enrollment in the Counselor Education training program. Participants were asked to select among the five types of graduate course of study: (1) Clinical Mental Health Counseling; (2) Marriage, Couple, and Family Counseling; (3) Schooling Counseling; (4) Rehabilitation Counseling; (5) and College Counseling. Seven participants \((30.4\%)\) reported their course of study as Clinical Mental Health Counseling. Three participants \((13\%)\) indicated School Counseling in terms of program type. One participant reported \((4.3\%)\) studying Marriage, Couple, and Family Counseling. One participant \((4.3\%)\) indicated Rehabilitation Counseling as a program option. One participant reported enrollment in the College Counseling program of study. Ten participants \((43.7\%)\) reported enrollment in the Counseling Psychology graduate training program.

Participants were asked to report what theoretical orientations they use in their work with clients, as listed in Table 2. Participants’ descriptions of their theoretical orientations are organized into five subcategories. The majority of participants \((59.2\%; n = 9)\) responded with
“Person-Centered” as the theoretical basis for how they work with clients in therapy. Six participants (26.1%) described their theoretical orientation as “Integrative.” Four participants (17.4%) indicated “Humanistic” as their approach to psychotherapy. Three participants reported “CBT” as their theoretical orientation. Of the entire sample, one participant indicated “Psychodynamic” as the basis for how they approach psychotherapy.

Table 2

Frequencies of Reported Therapist Trainee Development Information

<table>
<thead>
<tr>
<th>Category</th>
<th>( f )</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counselor Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinical Mental Health Counseling</td>
<td>7</td>
<td>30.4</td>
</tr>
<tr>
<td>Marriage, Couple, and Family Counseling</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>School Counseling</td>
<td>3</td>
<td>13.0</td>
</tr>
<tr>
<td>Rehabilitation Counseling</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>College Counseling</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>Counseling Psychology</td>
<td>10</td>
<td>43.7</td>
</tr>
<tr>
<td>Theoretical Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanistic</td>
<td>4</td>
<td>17.4</td>
</tr>
<tr>
<td>Person-Centered</td>
<td>9</td>
<td>59.2</td>
</tr>
<tr>
<td>Cognitive Behavioral</td>
<td>3</td>
<td>13.0</td>
</tr>
<tr>
<td>Psychodynamic</td>
<td>1</td>
<td>4.3</td>
</tr>
<tr>
<td>Integrative</td>
<td>6</td>
<td>26.1</td>
</tr>
<tr>
<td>Previous Counseling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior Counseling</td>
<td>18</td>
<td>78.3</td>
</tr>
<tr>
<td>No Prior Counseling</td>
<td>5</td>
<td>21.7</td>
</tr>
</tbody>
</table>

Note. \( N = 23 \).

To assess whether a therapist trainee had engaged in their own psychotherapy, participants were asked to indicate either “Yes,” “No,” or “Prefer not to say” to prior
psychotherapy treatment. The majority of participants, accounting for 78.3% of the sample, indicated that they had engaged in prior psychotherapy. Five participants (21.7%; n = 5) indicated they had not had a prior psychotherapy experience.

**Instruments**

The instruments used in this study included a therapist mentalization questionnaire from therapist trainee participants; a measure of therapist trainee attachment obtained by in-session, transcribed, and coded sessions; a measure of psychological distress; and a measure of working alliance given to participants’ clients. Participants were asked to complete a demographic information questionnaire. Scores from the Outcome Questionnaire 45.2 (OQ-45.2; Lambert et al., 2004) and Working Alliance Inventory – Short Revised (WAI-SR; Hatcher & Gillaspy, 2006) are archival data obtained from the psychology training clinic where participating therapist trainees’ clients were seen. A description of each measure follows.

**Reflective Functioning Questionnaire (RFQ; Fonagy, Luyten, Moulton-Perkins, et al., 2016)**

The Reflective Functioning Questionnaire is an 8-item self-report instrument that measures mentalizing on two subscales: certainty (RFQc) and uncertainty (RFQu). Specifically, the RFQ measures the degree of certainty and uncertainty respondents experience in relation to their own or someone else’s mental state (see Appendix A). The certain (RFQc) style is characterized by individuals who are too certain of their view of themselves and others, thereby implying no need to consider anyone else’s state of mind (Fonagy & Bateman, 2006). The uncertain (RFQu) style is characterized by an individual’s concrete, inflexible ways of mentalizing, leaving one unable to consider complex ways of understanding their own or another’s mind (Fonagy & Bateman, 2006). High levels of either style of mentalizing are
considered negative entities since they both reveal a respondent’s failure to appreciate the opaqueness of a mental state.

Fonagy, Luyten, Moulton-Perkins, et al.’s (2016) validation paper describes how the original 6-point Likert scale was changed to a 7-point scale in order to increase the range of scores. This study adopted the recommended 7-point Likert scale. Figure 3 lists the non-linear recoding of the scale responses used to measure response strength on just one of the ends of the scale. Each item of the scale is scored on a 7-point Likert scale ranging from 1 = (strongly disagree) to 7 = (strongly agree). RFQc refers to the degree an individual is certain about mental states and how much one disagrees with statements such as *People’s thoughts are a mystery to me*. The items are rescored (3, 2, 1, 0, 0, 0, 0, with 3 = strongly disagree). Strong disagreement of items indicates hyper-mentalizing, and a neutral response reflects genuine mentalizing or opaqueness of mental states. Hyper-mentalizing is characterized by the propensity to excessively mentalize and arrive at generalized mental representations, aside from a relationship to observable reality (Fonagy, Luyten, Moulton-Perkins, et al., 2016). RFQu refers to uncertainly about mental states and how much an individual agrees with statements such as *Sometimes I do things without really knowing why*. Items are rescored (0, 0, 0, 0, 1, 2, 3, with 3 = strongly agree). Higher scores reflect hypo-mentalizing and lower scores represent genuine mentalizing or opaqueness of mental states. Hypo-mentalizing is characterized by concrete thinking, with an inability to consider abstract and complex states of one’s mind or in the mind of another person (Fonagy, Luyten, Moulton-Perkins, et al., 2016) because both the view of self and other are negatively biased. In contrast to extreme mentalizing (e.g., hyper-mentalizing and hypo-mentalizing), genuine mentalizing can be characterized by an individual modestly knowing about
one’s own mental states and the mental states of others (Fonagy, Luyten, Moulton-Perkins, et al., 2016).

**Figure 3**

*Recoding of the RFQ*

<table>
<thead>
<tr>
<th>Item</th>
<th>RISPONSE:</th>
<th>Coding for RFQc (Certainty = Hypermentalising)</th>
<th>Coding for RFQs (Uncertainty = Hypamentalising)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Strongly Disagree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>RFQ2</td>
<td>I don’t always know why I do what I do</td>
<td>3 2 1 0 0 0 0</td>
<td>0 0 0 0 1 2 3</td>
</tr>
<tr>
<td>RFQ4</td>
<td>When I get angry I say things that I later regret</td>
<td>3 2 1 0 0 0 0</td>
<td>0 0 0 0 1 2 3</td>
</tr>
<tr>
<td>RFQ5</td>
<td>If I feel insecure I can behave in ways that put others’ backs up</td>
<td>3 2 1 0 0 0 0</td>
<td>0 0 0 0 1 2 3</td>
</tr>
<tr>
<td>RFQ6</td>
<td>Sometimes I do things without really knowing why</td>
<td>3 2 1 0 0 0 0</td>
<td>0 0 0 0 1 2 3</td>
</tr>
<tr>
<td>RFQ7</td>
<td>People’s thoughts are a mystery to me</td>
<td>3 2 1 0 0 0 0</td>
<td>NOT USED</td>
</tr>
<tr>
<td>RFQ8</td>
<td>When I get angry I say things without really knowing why I am</td>
<td>3 2 1 0 0 0 0</td>
<td>NOT USED</td>
</tr>
<tr>
<td>RFQ9</td>
<td>I always know what I feel</td>
<td>NOT USED</td>
<td></td>
</tr>
<tr>
<td>RFQ10</td>
<td>Strong feelings often cloud my thinking</td>
<td>NOT USED</td>
<td></td>
</tr>
</tbody>
</table>

*Note:* The first four items are used in both scales but in opposite directions.

According to Figure 3, of the 6 items on each subscale, two are unique (RFQu, items 7 and 8; RFQc, items 1 and 3) and four are shared (items 2, 4, 5, and 6) across the two scales. Four shared items among the two scales are both scored in opposite directions. Each scale runs from 0 to 3 and the sum of the two scales may not exceed 4. Both scales are based on the mean of the 6 items. The total score for each of the subscales is calculated by adding together the scores and dividing by the number of items. Scores above 1 were categorized as high (impaired) and scores below 1 were categorized as low/normal. This cut-off was based on the assumption that a mean score of at least one on either of these scales represents a marked mentalizing deficit.

Reliability estimates of the scores for RFQu and RFQc were .77 and .65, respectively, in the clinical sample and .63 and .67 in the nonclinical sample (Fonagy, Luyten, Moulton-Perkins,
et al., 2016). Test-retest reliability was found over a 3-week period with a Pearson’s $r$ ranging from .84 and .75 for RFQu and RFQc, respectively (Fonagy, Luyten, Moulton-Perkins, et al., 2016). Three studies described the development and initial validation of the two-factor structure in independent clinical and nonclinical (community) samples. In developing the factor structure of RFQ, Fonagy, Luyten, Moulton-Perkins, et al. (2016) conducted a confirmatory factor analysis (CFA) with maximum likelihood estimation, selecting a two-factor solution. CFA indices have been above .90 with CFI reported at .92 and RMSEA at .05. The unconstrained model suggested factorial variance across both clinical and nonclinical samples (Fonagy, Luyten, Moulton-Perkins, et al., 2016), yet the level of variance was not reported. Convergent validity was assessed between RFQu and RFQc and the Mindful Awareness Attention Scale (MAAS; Brown & Ryan, 2003) with a correlation of .34 and .33, respectively (Fonagy, Luyten, Moulton-Perkins, et al., 2016). Discriminant validity was reported between RFQu and RFQc and the Perspective-Taking Subscale (PTS; Davis, 1983) with a correlation of .06 and .18, respectively (Fonagy, Luyten, Moulton-Perkins, et al., 2016).

**Therapist Attunement Scales (TASc; Talia & Muzi, 2017)**

The Therapist Attunement Scales is an instrument used in analyzing a therapist’s level of attunement and attachment based on the occurrence of distinct communication markers during a single therapy session (see Appendix B). There are three primary scales that represent individual differences in attachment orientation: (a) balanced, (b) detaching, and (c) coercing (Talia et al., 2018). A balanced classification reflects therapists who offer a personal view of the client’s internal emotional states that are open to client correction and further elaboration, validate the client’s experience with a supportive subjective perspective, and convey how they experience the client (Talia et al., 2018). A detaching classification (i.e., avoidance) reflects therapists who
refrain from offering too much in response to the client’s self-disclosure (Talia et al., 2018). A coercive (i.e., resistance) classification reflects therapists who attempt to reflect the client’s experience and also restrain the client’s autonomous contributions (Talia et al., 2018).

Additionally, there are five subscales under each primary scale that are scored based on the frequency and intensity of the therapists’ attunement. The five subscales include the following: (a) self-state conjecture scale, (b) empathic validation scale, (c) joining scale, (d) detaching scale, and (e) coercing scale. The self-state conjecture subscale reflects “not-knowing” statements, whereby the therapist may inquire about a certain emotion (e.g., “are you feeling alone?”), provide conjecture about client’s intention (e.g., “it seems like you want more relationships”), or propose how the client evaluates another (e.g., “it sounds like your father was rejecting”) (Talia et al., 2018, p. 8). The empathic validation subscale rates “objective” statements in which the therapist validates the client’s experience, such as when a client is feeling a certain way based on underlying needs (e.g., “of course you felt frustrated when you didn’t receive the support you needed”) (Talia et al., 2018, p. 8). The joining subscale rates “expression” statements that convey the therapist’s feelings toward the client, either explicitly or implicitly, such as when the therapist offers acknowledgement of the client’s progress in session (e.g., “I am not sure you would have been this open with me a month ago”) (Talia et al., 2018, p. 8). The detaching subscale rates moments when the therapist actively refrains from attuning to the client and normalizes the client’s experience (e.g., “it is common for relationships to end”) (Talia et al., 2018, p. 9). The coercing subscale rates interventions that reflect the therapist restricting the ability for the client to correct or elaborate on the therapist’s views, such as repeating what the client stated in a long, vague manner (e.g., “your father is just trying to
pretend he is not angry”) (Talia et al., 2018, p. 9). Subscales are scored by using a simple algorithm with a global scale of security (i.e., intersubjective engagement).

Next, the five subscales (i.e., self-stated conjecture, empathic validation, joining, detaching, and coercing) were scored with a value between 0 and 7, based on the frequency and intensity of the attunement markers that are associated with each scale. Finally, the rater assigned an attachment classification based on the configuration of the five subscales. The three primary global scores or classifications (i.e., Balance, Coercing, and Detaching) reflected as a continuous variable were used for the purpose of this study.

Internal consistency of the Balance scale (i.e., IE; Intersubjective Engagement) has been reported as .88 (Talia et al., 2018). Interrater reliability was reported at .92 (Talia et al., 2018). Convergent validity was examined by comparing the results of the TASc with independently obtained AAI classifications. The TASc was found to be highly correlated with the AAI on three-way ($r = .90$) and for two-way classifications (distinguishing between secure and insecure) ($r = .92$). Correspondence between the TASc and the AAI sub-classifications was reported at .64. Discriminant validity was demonstrated by low and nonsignificant association between the TASc global scale and the Working Alliance Inventory Therapist-rated version (WAI-T; Horvath & Greenberg, 1989).

**Outcome Questionnaire 45.2 (OQ-45.2; Lambert et al., 2004)**

The Outcome Questionnaire 45.2 is a 45-item self-report questionnaire designed to track and measure progress in clients by assessing common symptoms across a wide range of mental health disorders. The OQ-45.2 measures an individual’s subjective experience based on how the individual functions in the world (Lambert et al., 2004). The OQ-45.2 contains three subscales of descriptive distress, which help the clinician to focus on certain problematic areas that need to be
addressed: (a) Symptom Distress (25 items), (b) Interpersonal Problems (11 items), and (c) Social Role (9 items) (see Appendix C). For example, items assessing symptom distress include statements such as *I tire quickly, I feel irritated,* and *I like myself* (reverse scored). Items reflecting interpersonal problems include statements such as *I get along well with others* (reverse scored), *I am satisfied with my relationships with others* (reverse scored), and *I have frequent arguments.* Items assessing social role performance include *I enjoy my spare time* (reverse scored) and *I find my work/school satisfying* (reverse scored).

Items are scored for each response using a 5-point Likert scale (0 = *never,* 1 = *rarely,* 2 = *sometimes,* 3 = *frequently,* 4 = *always*) with a range of 0 to 4 given to responses. Individual subscales are totaled and added together to provide a total global score. A total global score ranges from 0 to 180. Higher scores on each subscale and the overall global score indicate more severe distress and functional impairment. The cut-off point between clinical and nonclinical populations is 63. According to Lambert and colleagues (2004), a client with a decrease in 14 points from baseline (of the total global score) is considered to have made clinically significant improvement. However, a client demonstrating a 14-point increase (of the total global score) indicates a clinically significant deterioration. This study utilized the total global score to assess the clinical significance of the OQ-45.2 assessment tool. OQ-45.2 total global scores obtained weekly were used for the purposes of this study. The initial questionnaire was taken as baseline, while the latest questionnaire was defined as final.

Lambert et al. (2004) assessed reliability in both student and clinical samples. For a student sample, test-retest reliability compared with other brief outcome measures, such as the Beck Depression Inventory (BDI; Beck et al., 1961) and the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1977), was reported to range from .78 to .84 (Lambert et al., 2004),
remaining relatively stable over time. Internal consistency of the total scores in both student and clinical samples was .93.

Mueller and colleagues (1998) conducted a confirmatory factor analysis (CFA) using a sample of university students, finding that a one-factor solution fit equally well as either of the two- or three-factor solutions. Shaffer (2010) conducted confirmatory factor analyses of three competing models and supported a unidimensional factor structure. The OQ yields scores that are sensitive to change in clients yet remains stable in non-treated individuals. Convergent validity was demonstrated between the total score and subscale scores with multiple measures of psychological functioning (e.g., Beck Depression Inventory, State-Trait Anxiety). The OQ total score correlated positively with the Symptom Checklist-90-Revised (SCL-90-R; Derogatis et al., 1976) and the General Severity Index (.84) with a community clinic sample (Umphress et al., 1997). These results suggest that the OQ-45.2 has moderately high validity with total scores and provides a valid and appropriate measure to monitor client progress during psychotherapy treatment.

**Working Alliance Inventory – Short Form Revised (WAI-SR; Hatcher & Gillaspy, 2006)**

The Working Alliance Inventory-Short Form Revised (WAI-SR) is a 12-item self-report instrument used to assess the therapeutic alliance. This instrument aims to measure Bordin’s (1979) pan-theoretical concept of the working alliance and was validated for psychotherapy (see Appendix D). A key aspect of the therapeutic alliance requires active negotiation and participation between therapist and client. The WAI-SR is a client-rated questionnaire. This brief questionnaire is a quick, easy instrument that is part of the standard protocol at the counseling training clinic.
The WAI-SR (Hatcher & Gillaspy, 2006) is a client-rated questionnaire comprised of three subscales, which measure three domains of the therapeutic alliance: (a) the agreement between therapist and client on the goals of treatment (“Goal”), (b) the agreement between therapist and client on the tasks necessary to achieve the stated goals (“Task”), and (c) the quality of the bond between the therapist and client (“Bond”). Each subscale has four items, which are answered on a 5-point Likert scale with answers ranging from 0 (rarely or never) to 5 (always). The “Goal,” “Task,” and “Bond” domains each have scores ranging from 5 to 20, with higher scores indicative of a better therapeutic alliance. Responses to WAI-SR items are created on a 5-point Likert-type scale, ranging from 1 (never) to 5 (always). Subscale scores range between 5 and 20, resulting in a possible total range of scores falling between 12 and 60. Higher scores are indicative of representing a higher degree of therapeutic alliance. The total global score of the WAI-SR was used in this study. The overall item mean score was used in this study.

Subscale reliability estimates of the scores for the WAI-SR have ranged from .85 to .90 with total alpha scores of .91 and .92 obtained from two samples receiving psychotherapy (Hatcher & Gillaspy, 2006). Reliability estimates of scores for the subscales of Goal, Task, and Bond have ranged from .85 to .87, .85 to .87, and .85 to .90, respectively (Hatcher & Gillaspy, 2006). Test-retest scores were not provided.

Utilizing exploratory factor analysis, a six-factor structure was supported, which accounted for 56% of the variance (Hatcher & Gillaspy, 2006). Factors aligning with the domains of Goal, Task, and Bond reported correlations ranging from .42 to .46 (Hatcher & Gillaspy, 2006). The Goal and Task domains have failed to be differentiated in subsequent, more confirmatory factor analyses, suggesting that the two domains are measuring similar constructs. For this reason, many researchers recommend using the overall mean of the WAI-SR rather than
its subscales (Falkenström et al., 2015). Convergent validity analyses with the California Psychotherapy Alliance Scale (CALPAS; Gaston, 1990) and the Helping Alliance Questionnaire (HAQ; Alexander & Luborsky, 1986) have provided support for construct validity, with correlations ranging between .74 and .80. As evidence of discriminant validity, WAI-SR scores had low correlations of .29 to .33 with a measure of Group Health Patient Experience Survey (GHPES: Agency for Health Care Research and Quality, 2008).

**Demographic Questionnaire**

A therapist trainee demographic questionnaire (see Appendix E) was used in this study to obtain descriptive information about the participant sample. On the demographic questionnaire, therapist trainee participants were asked to report items pertaining to age, race/ethnicity, gender identity, current relationship status, and SES. In addition, the therapist trainee questionnaire included items about work status, theoretical orientation, personal history of therapy experience, year in graduate training, and graduate training program.

**Procedures**

The Human Subjects Institutional Review Board granted approval to conduct all study procedures (see Appendix F). The investigator obtained permission from the clinical director of the training clinic that was used for participant sample recruitment. Therapist trainees attended a practicum course one night per week over the length of an academic semester. Practicum sections typically were comprised of five to seven graduate therapist trainees supervised by a licensed psychologist or licensed counselor and assisted by a doctoral student. Practicum courses provided therapist trainees with a didactic learning experience to provide therapy to clients, participate in supervision, and observe peers in therapy sessions.
Therapist trainees were recruited from a counseling practicum over the course of three semesters. There are typically three to four practicum sections per semester. The investigator contacted instructors of the practicum course and asked permission to attend the first 15 minutes of a class at the beginning of the semester. In total, 54 therapist trainees were recruited to participate in the current study.

During the recruitment process, practicum instructors were asked to exit the room for a period of 15 minutes while therapist trainees were invited to participate in the study. The practicum instructors’ absence was intended to eliminate any potential influence they may have on therapist trainees’ willingness to participate. The investigator stated that the study aimed to explore more about therapist characteristics that relate to the process and outcome of psychotherapy (see Appendix G). After the research study packet was distributed to all potential therapist trainee participants, they were invited to review the informed consent document outlining procedures, risks, and benefits associated with this study (see Appendix H) and to participate in the study. If they consented to participate in the study, they were asked to complete a brief demographic questionnaire and an 8-item questionnaire (i.e., RFQ) that measures how they think about self and others. The consent document informs participants that they may withdraw from the research study at any time.

The investigator encouraged potential therapist trainee participants to raise any questions or concerns. After addressing any questions, the investigator left the room to provide the potential participants privacy to accept or decline participation in the study. Out of the 54 therapist trainees recruited, 50 consented to participate in this current study.

Therapist trainees who consented were offered an incentive to participate in this study of either a $5 Starbucks gift card or a 1-hour parking validation card. Both incentives had the same
price value. Once participants completed the informed consent, demographic questionnaire, and brief measure, they deposited and sealed them in the manila envelopes provided. Manila envelopes were then collected by the investigator at the end of the 15-minute period.

In order to protect the privacy and confidentiality of all participants, all data in this study were deidentified. Participants were assigned an ID number so that their names would not be linked to their responses in any way. Therapist trainees were informed that data from this study would be kept confidential and, more specifically, that their supervisors would not have access to their information.

Archival data used in this study consisted of three sources: an assessment of clients’ psychological symptoms (OQ-45.2), a client-rated questionnaire of the working alliance (WAI-SR), and video recordings of therapy sessions. All of the aforementioned data were collected as part of the procedural process at this university training clinic.

When clients initially presented for therapy, they completed an informational packet regarding the process and procedures of obtaining therapy at the training clinic. Within this packet is a statement of professional intent that they must sign if they wish to pursue counseling at the clinic (see Appendix I). This statement informs clients that their information on file may be accessed for the purposes of research.

Recordings of counseling sessions are stored on a secure electronic recording system that is accessible only from the training clinic’s computers. Session number three was recorded, transcribed, and coded for use with the TASC measurement. Sessions were accessed and transcribed by research assistants, who completed HSIRB training. Transcribing took place on password-protected computers within the university training clinic. Transcripts were saved on a shared drive that is accessible only on the training clinic’s computers. Any personal health
information (PHI) was not included in the transcribed therapy sessions. Transcripts were coded by the TASc instrument developer and his research team.

Data from this study are confidential but not anonymous. Transcripts were coded using a sequential number associated with the dyad (i.e., participant name and client number). Coded numbers were used to link data from client files with client and therapist trainees’ transcripts during the research. A master list of code numbers and participant names was stored in a locked file in the clinical director’s office separately from participants’ research data and client records. After data entry was complete, the master lists were destroyed. Transcribed sessions were also kept separate from regular client files and only the researchers and their research assistants had access to the information collected in this study. From the time the informed consent was signed through the end of the 15-week academic semester, one therapy session was accessed and transcribed per participant. The data will be maintained in a locked filing cabinet in the clinical director’s office for a minimum of 7 years.

Data Analyses

Descriptive statistics were analyzed to determine frequencies and proportions of all demographic variables along with means and standard deviations of all outcome variables. Research questions associated with the effects of therapist trainee attachment-related characteristics on client psychotherapy outcome were addressed with the use of multilevel modeling (MLM) statistical analyses. Many topics within the field of counseling psychology are addressed with multilevel data. MLM was selected as an ideal approach for analyses based on how growth curve modeling in particular can be applied to change in the course of psychotherapy (Kahn, 2011; Kahn & Schneider, 2013; Singer & Willett, 2003). MLM is particularly well suited for observing complex patterns of change with multiple assessments of
client outcomes and provides a flexible set of tools to analyze trajectories of client change. As such, researchers are commonly turning to advanced statistical methods, namely MLM, to address this complexity.

MLM is a regression-based statistical analysis in which one or more independent variables may be used to predict a dependent variable on multiple levels within a nested data structure (Garson, 2013; Kahn, 2011; Kahn & Schneider, 2013; Nezlek, 2012; Raudenbush & Bryk, 2002). When individuals exist within natural groups such as therapist caseloads, the data have a nested structure (Kahn, 2011). Typically, from naturalistic setting, data are nested and observations can be subdivided into a smaller number of groups. Research questions aimed to identify both change over time within individuals and the variation in degree and rate of change between individuals. Specifically, research questions were targeted at the rate at which change was tracked over time to uncover whether variables that are associated with clients’ therapists have an effect on client therapeutic progress and client perception of the therapeutic relationship.

MLM is beneficial for the purposes of this study because the analytic procedures offer improved estimation of effects within individual units, improved hypotheses formulation and testing of cross-level effects, and the partitioning of error variance onto the appropriate level to which it is associated (Raudenbush & Bryk, 2002).

**MLM Design**

MLM can be used to represent the change process in longitudinal data. Change is modeled within individuals at one level and between individuals at another level (Singer & Willett, 2003). When individual trajectories of change are analyzed over time with respect to patterns within individuals as well as differences between individuals, it is termed *growth curve modeling*. Kahn and Schneider (2013) asserted that growth curve modeling is a preferable form
of analysis because of its ability to model complex patterns of change indicative of client progress throughout the therapy process. Growth models attempt to estimate between-person differences in within-person change. Often the within-person patterns of change are referred to as growth curves.

Multilevel modeling consists of multiple levels of analysis, starting with relatively simply formulas and models, then progressing through to more complex models. The starting point is often the unconditional means model that, in the present study, simply reflects overall differences and variation in psychological symptoms (OQ-45.2 scores) and working alliance (WAI-SR) but introduces no patterns of change or growth over time, and no other predictors. The next and more substantive analysis involves change or unconditional growth. The test results in an estimate of the average within-person rate of change in OQ-45.2 and WAI-SR without any other predictors in the analysis. Time in this model refers to a basic linear growth model.

Other tests can be conducted to determine if, for example, changes in OQ-45.2 and WAI-SR can be accounted for by a between-subjects predictor, such as adult attachment orientation (Balanced, Coercing, and Detaching). As Shek and Ma (2011) point out,

The Level 2 model captures whether the rate of change varies across individuals in a systematic way. The growth parameters (i.e., the within-subjects intercepts and slope) of Level 1 are the outcome variables to be predicted by the between-subjects variables at Level 2. (p. 47)

Extending this model, we can also examine cross-level interactions or whether Balanced, Coercing, or Detaching interacts with time to predict different change patterns in OQ-45.2 or WAI.

In this study, client change in psychotherapy and the working alliance were tracked as a function of a therapist trainee variable to determine elements within trainees that affect their clients’ outcome. The data structure included two hierarchical levels where the first level was
nested within the second level to predict client outcome. The first level included time as the predictor variable, and the second level included therapist trainee attachment variables (i.e., Balanced, Coercing, and Detaching). Thus, client progress in therapy and the working alliance were predicted by time in therapy at level 1, which was nested within therapist trainee variable at level 2.
CHAPTER III
RESULTS

The purpose of this study was to examine if therapist trainees’ attachment-related characteristics were associated with their clients’ outcome in psychotherapy. The study sought to identify whether therapist trainees’ attachment might influence if or how much their clients changed over the course of psychotherapy by evaluating the following outcome variables: the working alliance, the overall reduction in psychological distress, and the speed with which client psychological distress symptoms decreased. This study investigated whether the mean strength of the working alliance and decrease in client’s psychological symptom distress, as well as its trajectory over time, differed between three therapist attachment scores. This was accomplished by the use of growth curve modeling, a type of multilevel modeling that explores individual change over time both within and between participants. The following research questions were examined:

1. Do therapist trainees’ clients produce larger reductions in psychological distress over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?

2. Do therapist trainees’ clients produce better ratings of the working alliance over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)
3. What is the relationship between therapists’ global scores of general attachment security (i.e., Balance) and therapists’ reflective functioning scores (i.e., Certainty and Uncertainty)?

The results of this study are presented in three sections. In the first section, I will address and report findings from preliminary analyses that examined the nature of the raw data and the assumptions tested. The second section provides findings from descriptive statistics regarding participant attachment-related characteristics and the distribution of variables among the final sample. The third section presents growth curve analyses, including discussion of variables tested, model comparisons, and the specification of an optimal model to represent the study data.

**Preliminary Analyses**

Prior to performing descriptive statistics, the data were screened for outliers and inclusionary standards. The preliminary analyses section is composed of three subsections. In the first subsection, I describe the data screening process detailing exploration of the data for accuracy and missing information. In the second subsection, I present the comparison of mean differences between dependent and demographic variables and intercorrelations. Last, in the third subsection, I describe how assumptions were tested and the conclusions generated.

**Data Screening Process**

Prior to constructing multilevel models to fit the data, a data screening process was conducted to explore the data for accuracy and determine missing values. Before exploring the accuracy of the data, preparations began with examining the participant study packets. Fifty-four graduate therapist trainees were recruited for this study. Fifty graduate trainees accepted participation and consented to the study. Four graduate student trainees declined participation in the study. All 50 participants completed the demographic questionnaire and Reflective
Functioning Questionnaire. As part of the practicum requirement in the psychology training clinic, therapist trainees consented to recording their therapy sessions. The TASc score is based on the occurrence of distinct communication markers as a guide for identifying markers of attachment in psychotherapy sessions. In the process of transcribing therapy sessions verbatim, difficulties arose in the quality of audio or positioning of the video camera whereby speech turns were inaudible or nonverbals remained unseen. A number of therapist trainee participants’ recorded sessions failed to provide accurate communication markers between the therapist trainee and the client. Thus, 21 therapist trainees’ data were excluded from the study. Moreover, it was noted that some therapist trainees were assigned more than one client in the practicum as is commonly the case. Pairing therapists with multiple clients posed practical and conceptual problems for the analyses. In order to build consistency and reduce complexity in the models, only dyads of one therapist and one client were included in the data set. Therefore, six therapist trainees’ data were removed from the dataset. The final sample included 23 therapist trainee participants.

Exploration of the raw data was conducted to determine accuracy of the data and any missing information. All data were entered into an Excel spreadsheet using a univariate format and examined for accuracy of data entry. This format is structured vertically so that each measurement for each participant is listed per row of data so that a growth record for each participant is visible. The advantage of this format is the inclusion of an explicit time variable that can accommodate research designs with unequal measurement occasions (Singer & Willett, 2003). Frequency tables were used to check the accuracy of all entered scores of each variable.

A review of the dataset on an Excel spreadsheet determined that there were visually inconsistent scores that appeared on the therapist trainees’ clients’ two outcome measures. The
data were then screened for missing data, or no response indicated, by reviewing each single item entry of each participant and coded with a –99 to indicate missing item entry within SPSS. Only one missing value (client #3910) was found across a range of clients on the OQ-45.2. This missing value reflected the intake OQ-45.2 score. Likewise, there was one missing value (client #3936) across a range of clients on WAI-SR scores. This missing value reflected the WAI-SR score for the client’s first session and was not included in the analyses. The two missing values on cases #3910 and #3936 appeared randomly on the clients’ OQ-45.2 and WAI-SR scores.

Additionally, when examining the data set, there were no WAI-SR values for case #4017. This perhaps is suspected to not be a random occurrence as case values were reported at intake through session 4 on the OQ-45.2. This variation from all other therapist trainee clients may be explained by an error in administration of the measurement or perhaps the client declined to complete this assessment. Although missing data are permitted in MLM, they are assumed to be missing at random.

In longitudinal naturalistic studies such as this, it may be useful to distinguish between attrition and intermittent missing value patterns in addition to missingness that occurs within a particular time point (Newsom, 2015). Although random missing values are commonly addressed by deleting the cases, exclusion of cases can potentially lead to loss of power, biased estimates, and biased standard errors (Newsom, 2015). A common strategy is to replace the missing observations with the mean, but this strategy results in underestimation of the error variance. This is commonly used because the group mean for an item is expected to represent the central tendency of that item. Taking missing data into account in the application of the statistical analyses selected, MLM manages missing data relatively by extending to discrete data. An
advantage of utilizing MLM is that it provides a more flexible and powerful approach to handling missing data as it does not require balanced data across multi-level sampling schemes.

After the data were screened for accuracy, the data set was transferred into IBM SPSS-27 statistical software program to create growth plots of client change trajectories (Raudenbush et al., 2011). Client change trajectories were plotted and displayed on a graph according to each participating therapist trainee. For the purposes of this study, each therapist trainee was paired to one client. This resulted in one-to-one dyads of therapist trainee and clients yielding a total number of 23 clients. Client data were plotted on a scatterplot graph to allow for visual assessment of potential trends and trajectories.

Using these results, there was a single case that appeared to deviate from the client group and was considered an outlier in the data set. Client #3926 demonstrated a jump in higher distress scores at the end of therapy compared to intake. Further investigation confirmed accuracy of the OQ scores in the data set. Although this case seems uncommon, previous studies have noted that variability in client responses may illustrate wide fluctuations in their subjective estimates of the intensity of their symptoms over the course of treatment (Lambert et al., 2004). This case represents a rare occurrence and was thus retained for inclusion in the full data set of preliminary analyses.

**Comparing Mean Differences**

After the data were screened, differences in mean scores on the dependent variables were checked across the demographic variables of gender and race. A series of one-way analyses of variance (ANOVAs) was conducted to examine group differences for two client demographic variables and two dependent variables. The demographic variables included clients’ gender and race. The dependent variables were client symptom distress (OQ-45.2) and client perspective on
the working alliance (WAI-SR). Client progress in therapy, especially symptom distress, was measured with the OQ-45.2.

The first one-way ANOVA was conducted to determine a group mean difference between clients’ gender and psychological distress symptoms. Clients were classified into three groups: male ($n = 9$), female ($n = 12$), and self-identity ($n = 1$). There were no outliers as assessed by a boxplot. Data were normally distributed for each group as assessed by Shapiro-Wilk test ($p > .05$). Homogeneity of variance was assessed by Levene’s test of homogeneity of variances ($p = .115$). No significant differences were found between client gender and client psychological distress symptoms, $F(2, 19) = .970, p = .397$.

The second one-way ANOVA was conducted on the group mean difference between clients’ race and psychological distress symptoms. Clients were distributed among four groups: White ($n = 17$), American Indian/Alaska Native ($n = 1$), Hispanic/Latino ($n = 2$), and Multiracial ($n = 2$). There were no outliers as assessed by a boxplot. Data were normally distributed for each group as assessed by Shapiro-Wilk test ($p > .05$). Homogeneity of variance was assessed by Levene’s test of homogeneity of variances ($p = .775$). The results yielded a statistically nonsignificant difference between clients’ race and psychological distress symptoms, $F(3, 18) = .039, p = .989$.

Two separate one-way ANOVAs were employed to examine whether a group difference exists between clients’ gender and race and the client’s perspective on the quality of the therapeutic working alliance. Pertaining to gender, the results yielded a nonsignificant difference for male ($M = 4.01; SD = .356$), female ($M = 3.76; SD = 1.038$), and self-identity ($M = 3.08$) and the working alliance, $F(2, 18) = .618, p = .550$. For clients’ race, the results showed a nonsignificant difference between White ($M = 3.74; SD = .872$), American Indian/Alaska Native
After examining the differences in mean scores on the dependent variables, relationships among the variables were explored using Pearson product-moment correlations. Table 3 displays the means and standard deviations of scores from the measures used in this study, as well as bivariate correlations between these scores. Among the therapist trainee participants, the global scores of Balanced and Coercing resulted in a moderate negative correlation, $r(21) = -.43, p < .05$, suggesting that the Balanced and Coercing scales of the TASc classifications are related but not identical constructs. In other words, the more a therapist depicted “Balanced” attachment communications, the less “Coercing.” Findings differ from the nonsignificant low negative correlation ($r = -.16$) between Balanced and Coercing scores found in Talia et al.’s (2018) validation study. These differences suggest that the two classifications may be more correlated in this sample.

Furthermore, results indicated a strong negative correlation, $r(21) = -.56, p < .005$, between the RFQ subscales of Certainty and Uncertainty. The strong negative correlation signifies that the more therapists endorse certainty about mental states, the less they endorse uncertainty. In the RFQ validation study (Fonagy, Luyten, Moulton-Perkins, et al., 2016), the estimated correlation between RFQc and RFQu subscales was higher in the clinical sample compared to the nonclinical sample. The size of these correlations suggests that the two subscales are relatively independent, particularly the nonclinical sample (with 37% and 11% of the variance shared in the nonclinical and clinical sample, respectively).
Table 3

Descriptive Statistics and Correlations for Study Variables

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<td>23</td>
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<td>22</td>
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<td>1.33</td>
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<td>1.92</td>
<td>0.91</td>
<td>0.51</td>
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</table>

Note. N = 23; OQ3 = OQ-45.2, Outcome Questionnaire-45.2, Session 3; WAI3 = WAI-SR, Working Alliance Inventory – Short Revised, Session 3; TAScBalance = Therapist Attunement Scale – Balance; TAScCoercing = Therapist Attunement Scale – Coercing; TAScDetach = Therapist Attunement Scale – Detaching; RFQCertain = Reflective Functioning Questionnaire Certain; RFQUncertain = Reflective Functioning Questionnaire Uncertainty.
* p < .05. ** p < .01.

Testing of Assumptions

Assumption testing was conducted to assess for the estimation in procedures used in MLM. Normal distribution of the error variance was verified by a visual inspection of normal probability plots for each raw residual. A normal probability plot of raw residuals at all levels
was randomly distributed, depicted by the formation of a line and indicative of a normal
distribution. However, one extreme outlier existed (case #3926). Moreover, the intercept residual
values appeared to meet the normality assumption.

In addition to meeting the assumption of normality, the assumption of a linear
relationship between the independent and dependent variables, predictor versus outcome plots
were inspected at both levels. A linear relationship was established collectively by plotting a
scatterplot of the residuals against the unstandardized predicted values. At level 1, growth plots
were constructed for clients reflecting psychological symptom distress (OQ-45.2) and the quality
of the working alliance (WAI-SR) against time participated in therapy (i.e., sessions). Linear
change appeared reasonable for all individual trajectories. Any deviations from the fitted lines
may likely be due to measurement error. Therefore, the assumption of linearity was met on level
1.

On level 2, linearity was checked by plotting estimates of individual growth parameters
(i.e., intercept and slope) with level 2 predictor variables (i.e., TAScBal, TAScCoer, and
TAScDetach). Plots all indicated that a linear emerged as an appropriate metric. Thus, the
linearity assumption is met on level 2.

In addition to examining a linear relationship, the assumption of multicollinearity was
examined through a series of linear regression analyses. Correlations between the three
predictors were measured by the variance inflation factor (VIF), which assesses how much the
variance of an estimated regression coefficient increases if the predictors are correlated. All
predictors yielded a VIF of less than 2, indicating that the tested predictors are not correlated
with the other predictors. Thus, the assumption of multicollinearity is met.
Descriptive Statistics

In this section, I present findings from descriptive statistics regarding therapist trainees’ attachment-related characteristics and the distribution of variables used in the study. Descriptive statistics, including means, standard deviations, minimum, maximum, skewness, kurtosis, and correlations for the TASc, RFQ, OQ-45.2, and WAI-SR, are reported in Table 3. Session three was determined as a data point of evaluation of OQ-45.2 and WAI-SR, as this was the targeted session to be recorded and transcribed for the TASc. Three global scores were examined for the TASc and two subscale scores were examined for the RFQ. Total scores were used for the OQ-45.2 and the overall mean score was used for the WAI-SR. Results providing information about attachment classifications and mentalization by therapist trainees in the study are presented first, followed by results describing the distribution of variables. This section is composed of two subsections. In the first subsection, I present descriptive findings from therapist trainee participants. In the second subsection, I describe the distribution of variables.

Therapist Trainee Descriptive Findings

For the TASc instrument, the third psychotherapy session was recorded and transcribed verbatim from each therapist trainee. The session was then coded by a reliable rater, who was identified as the developer of the instrument or deemed a reliable rater by the developer himself. Next, five scales (i.e., Self-State Conjecture, Empathic Validation, Joining, Detaching, and Coercing) were scored and given a value between 0 and 7, based on the frequency and intensity of the attunement markers that are associated with each scale. Finally, the rater assigned an attachment classification based on the configuration of the five scales. One of three global classifications was assigned to therapist trainees: (1) Balance, (2) Coercing, or (3) Detaching. A therapist is classified Balance (corresponding to AAI classification “secure”) if Self-State
Conjecture, Empathic Validation, or Joining are higher than other scales. An assigned classification of Coercing (corresponding to the AAI classification of “preoccupied”) is assigned if the Coercing scale is higher than the other four scales. A Detaching classification (corresponding to the AAI classification “dismissing”) is assigned if Detaching is higher than all the other scales or if all the scales are in the low range. The mean scores and standard deviations for all three TASc classifications are presented in Table 3. Seven participants (30.4%) were classified as Balanced. Eight participants (34.8%) were classified as Detaching. Eight participants (34.8%) were classified as Coercing.

In the sample from this study, the mean scores for the TASc were comprised of the following: Balance ($M = 3.67$), Coercing ($M = 2.83$), and Detaching ($M = 1.61$). In a validation study, Talia and colleagues (2018) reported mean scores for Balance ($M = 4.5$), Coercing ($M = 2.3$), and Detaching ($M = 2.2$) from a sample of 50 psychodynamic therapists located in different regions of Italy. Thirty-two participants were classified as Balanced (64%), six participants were classified as Coercing (12%), and 12 were classified as Detaching (24%). Comparing the current means with the validation study findings indicated only slight differences between sample means. Notable differences in mean scores were evident within the Balanced and Detaching classifications. Frequencies are displayed in Table 4 to reflect the breakdown in the participant sample.

In assessing mentalizing on the RFQ, therapist trainees were asked to complete an 8-item questionnaire about how they think about self and others. Two subscales assessing Certainty (RFQc) and Uncertainty (RFQu) about mental states measure hypermentalizing and hypomentalizing, respectively. The scale ranges from 0 to 3. The cut-off score is set at a score of 1 for both scales. High scores on the RFQu subscale indicate high uncertainty about mental
states, hence difficulty mentalizing. Lower scores represent acknowledgment of the opaqueness of mental states. The mean scores and standard deviations for the two subscales are presented in Table 3. The Reflective Functioning Questionnaire Uncertain subscale ranged from 0.0 to 1.16 with higher scores indicating poor mentalizing ($M = .29; SD = .31$). RFQc reflected a broader range of 0.0 to 2.33 with a mean score of 1.33.

Table 4

Frequencies of Therapist Attunement Scales for Therapist Trainees

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<thead>
<tr>
<th>Category</th>
<th>$f$</th>
<th>%</th>
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<td>4.3</td>
</tr>
<tr>
<td>3.5</td>
<td>3</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Note. $N = 23$; Detaching 1 missing value.
Comparing mean scores with a few validated studies, Handeland and colleagues (2019) used the modified RFQ with a reported RFQc mean of 0.47 and RFQu of 1.28 in a nonclinical sample of mothers with substance use disorder (SUD). Cucchi et al. (2018) used this measure with a nonclinical sample of adults and found an average score of .52 for RFQu and 1.03 for RFQc. Table 5 shows the most frequent scores for therapist trainees. The most frequent scores on the Certainty subscale fell in the range of 1.0 to 1.5 (n = 12; 51.8%), and on the Uncertainty subscale, 0.0 to 0.5 (n = 18; 74.1%).

Table 5

Frequencies of Reflective Functioning Questionnaire for Therapist Trainees

<table>
<thead>
<tr>
<th>Measure</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFQ Certainty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.0 – 1.0</td>
<td>5</td>
<td>21.7</td>
</tr>
<tr>
<td>1.0 – 1.5</td>
<td>12</td>
<td>51.8</td>
</tr>
<tr>
<td>1.5 – 2.0</td>
<td>4</td>
<td>17.8</td>
</tr>
<tr>
<td>2.0 – 3.0</td>
<td>2</td>
<td>8.7</td>
</tr>
<tr>
<td>RFQ Uncertainty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.0 – .05</td>
<td>18</td>
<td>74.1</td>
</tr>
<tr>
<td>0.5 – 1.0</td>
<td>5</td>
<td>21.6</td>
</tr>
<tr>
<td>1.0 – 1.5</td>
<td>1</td>
<td>4.3</td>
</tr>
</tbody>
</table>

Note. N = 23; RFQ = Reflective Functioning Questionnaire.

Distribution of Variables

In this study, two dependent or outcome variables were represented as OQ-45.2, which is a measure of psychological symptom distress, and WAI-SR as a client-rated assessment reflecting the quality of the working alliance. As part of routine clinical procedures, clients completed both assessments before each therapy session at the training clinic where the study took place. Table 6 displays the total number of observations collected for the OQ-45.2 and
WAI-SR with the means and standard deviations. The total global score for the OQ-45.2 was collected from the intake session through 11 sessions of therapy. Mean scores for the WAI-SR were collected beginning at session two through session 11. Session two was selected as the first observation for the WAI-SR. The WAI-SR was collected at the beginning of each session, so session two was the first session that the client could accurately reflect on the quality of the therapeutic relationship.

Table 6

Descriptive Statistics for Outcome Measures at Each Session

<table>
<thead>
<tr>
<th>Session</th>
<th>OQ-45.2</th>
<th></th>
<th></th>
<th>WAI-SR</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
<td>SD</td>
<td></td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>Intake</td>
<td>22</td>
<td>72.91</td>
<td>20.40</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>1</td>
<td>23</td>
<td>65.40</td>
<td>20.12</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
<td>64.90</td>
<td>24.04</td>
<td>21</td>
<td>3.82</td>
<td>.83</td>
</tr>
<tr>
<td>3</td>
<td>22</td>
<td>64.30</td>
<td>22.49</td>
<td>22</td>
<td>3.98</td>
<td>.74</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>66.20</td>
<td>26.20</td>
<td>19</td>
<td>4.14</td>
<td>.67</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>60.40</td>
<td>22.12</td>
<td>16</td>
<td>4.17</td>
<td>.60</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>60.90</td>
<td>23.90</td>
<td>12</td>
<td>4.07</td>
<td>.54</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>56.40</td>
<td>20.73</td>
<td>8</td>
<td>4.38</td>
<td>.47</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>54.00</td>
<td>18.83</td>
<td>6</td>
<td>4.47</td>
<td>.44</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>48.17</td>
<td>23.16</td>
<td>4</td>
<td>4.70</td>
<td>.38</td>
</tr>
<tr>
<td>10</td>
<td>5</td>
<td>41.40</td>
<td>18.42</td>
<td>4</td>
<td>4.60</td>
<td>.47</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>48.00</td>
<td>10.40</td>
<td>3</td>
<td>4.78</td>
<td>.39</td>
</tr>
</tbody>
</table>

Note. N = 23; OQ-45.2 = Outcome Questionnaire-45.2; WAI-SR = Working Alliance Inventory – Short Revised.

On the reported assessment measuring psychological symptom distress (OQ-45.2), total scores ranged from 13 to 122. Mean scores ranged from 41.40 to 72.91, with an intake mean
score of 72.91 and standard deviation of 20.12, and a mean score at session 11 of 48.0 and standard deviation of 10.40. A global score of 63 is considered the cut-off point when comparing nonclinical and clinical populations. In a validation study, Boswell and colleagues (2013) reported similar mean scores on a student sample at a Midwestern university counseling center.

Client change trajectories were compared with one another in a pattern of change over time of psychological symptom distress. Results indicted a reduction of client scores of psychological distress (i.e., OQ.45.2 scores) over time. Overall, for the majority of clients ($n = 16$), as the number of sessions increased, scores in psychological distress decreased. Seven clients, however, revealed slightly higher psychological distress scores at the end of therapy, and two clients indicated no change in psychological distress from intake to termination. Additionally, 17 clients’ psychological distress scores decreased after the initial intake session, whereas the remaining six clients’ scores increased in distress levels. When examining change in distress over the course of therapy, variations are common (Lambert et al., 2004). After comparing client change trajectories, a random attrition pattern emerged whereby clients’ OQ-45.2 earlier dropout rates coincided with earlier WAI-SR dropout rates. Three cases (#3974, 3803, and 3962), in particular, reflected a full value of scores from intake to session 11.

Total WAI-SR scores ranged from 1.5 to 5, with mean scores ranging from 3.82 at session two to 4.78 at session 11. Huber and colleagues (2021) reported similar findings with a mean score of 3.69 at session five and 3.88 at termination in a sample of clinical adult clients. In general, the distribution of mean scores on the OQ-45.2 and the WAI-SR are somewhat similar to studies done on a clinical sample of adults at a university training clinic.

Client change trajectories were compared with one another in a pattern of change over time in WAI-SR scores. Results indicated an overall increase of working alliance in WAI-SR
scores. Table 6 lists the number of client-attended sessions. Similar to clients’ change in time with psychological distress, the majority of clients ($n = 16$) reported an improved working alliance. Two client-rated working alliance scores indicated no change from session two to termination. Three clients reported less improvement in the working alliance throughout the course of therapy.

**Statistical Analyses**

Next, in this section I describe the model building process by outlining the method for how models were structured with the study variables and how an optimal model was selected in fitting the data. In this first subsection, I will summarize the procedural strategy for model building. In the second subsection, I will outline the multilevel modeling statistical formulas. Finally, in the third subsection, I will describe findings that address the research questions regarding overall change and results.

**Multilinear Modeling Process**

Before building a multilevel growth model to fit the data, a method was selected for parameter estimation. As in this study’s data set, when data are unbalanced (Raudenbush & Bryk, 2002), a maximum likelihood approach is beneficial to obtain consistent and efficient estimates. Patterned after Kwok et al. (2008), a first-order autoregressive error structure (with heterogenous variance) was used in the analyses. Missing data were assumed to be missing at random (Rubin, 1987) and handled using a mixed effect model with maximum likelihood estimation within the multilevel models (Gallop & Tasca, 2009). The $-2 \log$ likelihood ($-2LL$) (i.e., deviance test) was used to select the best model. According to Shek and Ma (2011), the smaller the values of the likelihood ratio test, the better the fit of the model. This estimation modeled individual change over time, the shape of the growth curves, systematic differences in
change, and the effects of covariate on group differences in the initial status and the rate of growth (Shek & Ma, 2011). This is an appropriate method when studying individual change, as it constructs a two-level hierarchical model that nests time within the individual. Once the estimation method was determined, the model-building process began.

Growth curve modeling refers to a set of analyses that models complex pattern of change indicative of client progress throughout the course of treatment. The goal of model building is to explain as much of the outcome variance as possible. Models include predictor and outcome variables as well as fixed effects and variance components. Models are built so that each new model adds to the fit in a more substantive way. As detailed below, the unconditional mean model (UMM) quantifies outcome variation across clients (without regard to time) and the unconditional growth model (UGM) quantifies both across clients and includes over time. These models thus determine the baselines before predictor variables are added to assess the impact on the outcome variance.

The analysis process involved building and testing models of increasing complexity. As proposed by Shek and Ma (2011), a procedural strategy was utilized with three models tested. The models included (1) an unconditional mean model (UMM), (2) an unconditional linear growth model (UGM), and (3) a conditional growth model (CGM). First, the UMM serves as a baseline model to examine individual variation in the outcome variable(s) (i.e., mean differences) without regard to time. The UMM tests the hypothesis that there is no change over time. The model assesses the outcome variable mean and the amount of variation that exists both within client and between client levels. Identifying the variation in these levels helps to determine which level of predictors to add when fitting the subsequent model. Next, the UGM
adds a time predictor to depict the rate of change on the outcome variance. The UGM estimates
the average within-person status and rate of change without any other predictors in the model.

In this study, the primary interest was in determining a two-level model of analysis
assessing linear time (i.e., therapy sessions) in which OQ-45.2 and WAI-SR scores were
evaluated at level 1. The effect of therapist attachment was evaluated at level 2. Level 1 allows
the analysis of stability and change in OQ-45.2 and WAI-SR scores over the course of therapy
sessions. Level 2 models change in OQ-45.2 and WAI-SR scores as a function of therapist
attachment. Results of these initial models highlight outcome variation to explore both within
clients on the first level and between clients on the second level. At level 1, the model seeks to
explain within-person variance.

The purpose was to determine change in time of psychological symptom distress and
working alliance and variability around such changes. At level 2, the purpose is to explain
between-person variance. At level 2, therapist attachment effects were evaluated as predictors to
help explain variation in the change of psychological symptoms and the client’s perceptions
about the quality of the working alliance. Level 2 predictor variables are examined for the extent
to which they explain additional variance between clients in both initial status (i.e., intercept) and
rate of change (i.e., slope). Significant within-person variability and initial individual differences
suggest that other predictors are warranted. Once variability and change over time is
demonstrated with the first two models (UMM and UGM), the effect of time-invariant covariates
on change in OQ and WAI-SR scores can be examined. The CGM tests the predictor effect on
the individual growth trajectories (i.e., initial status, linear growth, quadratic growth, cubic
growth) to explore any group differences in change over time. Therapist attachment
classification scores (i.e., Balance, Coercing, and Detaching) were added as mean-centered
predictors of change in OQ-45.2 and WAI-SR scores. In order to arrive at parsimonious explanations for the effects, nonsignificant predictors were therefore eliminated from the model.

**Multilevel Modeling Statistical Formulas**

Multilevel modeling accounts for multiple levels of data starting with simple formulas and models and progressing through more complex models. Mathematical notations for models were derived from Peugh (2010), Singer and Willett (2003), and Shek and Ma (2011) and are found in Appendix L. The starting point is often the unconditional means model that, in the present study, simply reflects overall differences and variation in psychological symptoms of distress (i.e., OQ-45.2 scores) but introduces no patterns of change or growth over time and no other predictors:

\[
OQ_{ti} = \gamma_{00} + u_{0i} + \chi_{ti}
\]

(1)

\(OQ_{ti}\) refers to the OQ-45.2 score for client \(i\) over repeated responses in the longitudinal design (\(t\)). \(t\) reflects repeated observations from \(i\) clients over time (i.e., sessions). \(\gamma_{00}\) refers to the grand mean OQ-45.2 score for all clients. \(u_{0i}\) refers to deviations in an individual client’s OQ-45.2 score around the grand mean of OQ-45.2 scores (i.e., random intercept). The error term (\(\varepsilon_{ij}\)) is the residual variance in OQ-45.2 scores.

The next and more substantive analysis involves change or unconditional growth model. The test results in an estimate of the average within-person rate of change in OQ-45.2 without any other predictors in the analysis. Time in this model refers to a basic linear growth model.

The equation for this model is:

\[
OQ_{ti} = \gamma_{00} + u_{0i} + (\gamma_{10})(TIME_{ti}) + \varepsilon_{ti}
\]

(2)

The parameter \(\gamma_{00}\) refers to the predicted first session when Time = 0. \(\gamma_{10}\) refers to the fixed linear time slope or the predicted rate of symptom change for each session of therapy.
Extensions of this basic model can be made to accommodate additional nonlinear patterns of change, such as quadratic ($\gamma_{20}$) and cubic ($\gamma_{30}$) slopes for change in OQ-45.2 scores. The equation for such a model would be:

$$OQ_{it} = \gamma_{00} + u_{0i} + (\gamma_{10})(TIME_{it}) + (\gamma_{20})(TIME_{it}^2) + (\gamma_{30})(TIME_{it}^3) + \varepsilon_{ij}$$  (3)

Other tests can be conducted to determine if, for example, changes in OQ-45.2 scores can be accounted for by a between-person predictor, such as therapist attachment classifications.

According to Shek and Ma (2011),

The Level 2 model captures whether the rate of change varies across individuals in a systematic way. The growth parameters (i.e., the within-subjects intercepts and slope) of Level 1 are the outcome variables to be predicted by the between-subjects variables at Level 2. (p. 47)

To simplify, in the present study, the following formula would apply to therapist attachment Balance as a Level 2 predictor of the intercept or OQ-45.2 score at the first session of psychotherapy treatment with the therapist.

$$OQ_{it} = \gamma_{00} + u_{0i} + (\gamma_{10})(TIME_{it}) + (\gamma_{20})(TIME_{it}^2) + (\gamma_{30})(TIME_{it}^3) + (\gamma_{01})(BAL_{i}) + \varepsilon_{ij}$$  (4)

Extending this model, we can also examine cross-level interactions or whether Therapist Attachment Balance, as an example, interacts with time to predict different change patterns in OQ-45.2. The formula for such a model involving all three change patterns would be:

$$OQ_{it} = \gamma_{00} + u_{0i} + (\gamma_{10})(TIME_{it}) + (\gamma_{20})(TIME_{it}^2) + (\gamma_{30})(TIME_{it}^3) + (\gamma_{01})(BAL_{i}) + (\gamma_{11})(TIME_{it})(BAL_{i}) + (\gamma_{21})(TIME_{it}^2)(BAL_{i}) + (\gamma_{31})(TIME_{it}^3)(BAL_{i}) + \varepsilon_{ij}$$  (5)

Throughout these models, the TASc variables will be treated as level 2 predictors of different change pattern in client distress (i.e., OQ-45.2) and client-reported working alliance (i.e., WAI-SR). Client psychological distress and the therapeutic working alliance are based on repeated measures of those level 1 variables. Growth curve analysis, the level 1 variable, is time or, in this study, session number. The level 1 model reflects the within-person change mode with
repeated measurements over time (i.e., sessions). The model of level 1 estimates the average within-person initial scores and rate of change over time. No predictors are included in this model.

**Growth Curve Analyses**

Growth curve modeling was utilized to evaluate and compare client trajectories both within- and between-person as a function of therapist attachment. In the remainder of this section of the statistical analyses, I will describe additional findings that address research questions regarding overall change. This section will be divided into three subsections. In the first subsection, I will present the findings from three models and examine differences in the overall reduction of clients’ psychological distress and the speed that symptom distress decreased based on therapist attachment. In the second subsection, I will describe additional findings from these models to examine differences in the quality of the client-rated working alliance and speed that the working alliance improved based on therapist attachment. In the third subsection, I will describe findings that address the relationship between therapist attachment classifications and mentalization.

**Change in Client Psychological Distress**

The first research question asked, “Do therapist trainees’ clients produce larger reductions in psychological distress over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching )?” Growth curve modeling was used to answer this research question that assessed client psychological distress over time as a function of therapist attachment through three models tested: (1) an unconditional mean model (UMM), (2) an unconditional linear growth model (UGM), and (3) a conditional growth model
(CGM). Table 7 displays the results from multilevel analyses for comparison during the model building process.

**Unconditional Mean Model (UMM).** The unconditional mean model (UMM) was the first model to fit the data. The UMM does not contain any predictor variables. It serves to compute the proportion of variability in the outcome scores that exist between level 1 and level 2. The overall intercept, within-person error variance, and between-person variance were the estimated parameters. The overall intercept depicts the grand mean of all the OQ-45.2 scores for all clients across all sessions, reflecting the variation in client psychological symptom distress without regard to time. Table 7 depicts that the grand mean of client psychological distress (OQ-45.2) is 65.14 ($p < .001$). Considering a cut-off score above 63 for clinical samples, overall clients averaged just above the clinical cut-off level in terms of psychological distress.

In the UMM, the random effects are the within-individual (i.e., residual) and the between-individual (i.e., intercept) error variances. These error variances detect the variation at each level. If both within- and between-individual effects are significantly different from 0, then there is further variance to be explained by predictors. Thus, further model building is warranted. Table 7 lists the within-client level of variation is 68.50 ($p < .001$). The amount of variation at the between-client level is 437.93 ($p < .001$). These variances indicate that average levels of psychological distress varied both within clients across sessions and between clients in comparison to one another.
### Multilevel Model Tests for Change in Client Psychological Distress (Outcome Questionnaire)

<table>
<thead>
<tr>
<th>Category</th>
<th>Parameter</th>
<th>UGM</th>
<th>UMM</th>
<th>UMM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>Intercept</td>
<td>66.37 (6.46)***</td>
<td>68.37 (4.17)***</td>
<td>65.14 (4.42)**</td>
</tr>
<tr>
<td></td>
<td>Linear Slope</td>
<td>–0.97 (0.38)***</td>
<td>–0.97 (0.38)***</td>
<td>–0.87 (0.44)***</td>
</tr>
<tr>
<td></td>
<td>Time × Balance-1</td>
<td>65.14 (4.42)**</td>
<td>63.72 (5.07)</td>
<td>65.37 (4.79)**</td>
</tr>
<tr>
<td></td>
<td>Denial × Therapist (1)</td>
<td>2.39 (4.67)</td>
<td>2.39 (4.67)</td>
<td>2.39 (4.67)</td>
</tr>
<tr>
<td></td>
<td>Coercing × Therapist (1)</td>
<td>1.82 (2.93)</td>
<td>1.82 (2.93)</td>
<td>1.82 (2.93)</td>
</tr>
<tr>
<td></td>
<td>Detaching × Therapist (1)</td>
<td>–5.77 (5.43)</td>
<td>–5.77 (5.43)</td>
<td>–5.77 (5.43)</td>
</tr>
<tr>
<td></td>
<td>Time × Coercing</td>
<td>2.39 (4.67)</td>
<td>2.39 (4.67)</td>
<td>2.39 (4.67)</td>
</tr>
<tr>
<td></td>
<td>Time × Detaching</td>
<td>–5.77 (5.43)</td>
<td>–5.77 (5.43)</td>
<td>–5.77 (5.43)</td>
</tr>
<tr>
<td></td>
<td>Initial Status</td>
<td>3.96 (1.18.24)**</td>
<td>3.79.93 (1.18.24)**</td>
<td>3.79.93 (1.18.24)**</td>
</tr>
<tr>
<td></td>
<td>Linear Slope</td>
<td>–0.97 (0.38)***</td>
<td>–0.97 (0.38)***</td>
<td>–0.97 (0.38)***</td>
</tr>
<tr>
<td></td>
<td>Balance-1</td>
<td>131.73</td>
<td>131.73</td>
<td>131.73</td>
</tr>
<tr>
<td></td>
<td>Coercing-1</td>
<td>12.93</td>
<td>12.93</td>
<td>12.93</td>
</tr>
<tr>
<td></td>
<td>Detaching-1</td>
<td>12.93</td>
<td>12.93</td>
<td>12.93</td>
</tr>
<tr>
<td></td>
<td>Balance</td>
<td>131.73</td>
<td>131.73</td>
<td>131.73</td>
</tr>
<tr>
<td></td>
<td>Coercing</td>
<td>12.93</td>
<td>12.93</td>
<td>12.93</td>
</tr>
<tr>
<td></td>
<td>Detaching</td>
<td>12.93</td>
<td>12.93</td>
<td>12.93</td>
</tr>
</tbody>
</table>

Note: The table displays estimates with standard errors in parentheses. Parameter definitions: β₀₀ = Average distress score when all predictors are 0; β₁₀ = Average change in distress per session when predictors are 0; e = Error variance within clients on level 1; r₀ = Error variance between clients on level 1; r₁ = Error variance between clients on level 2; UMM = Unconditional Mean Model; UGM = Unconditional Growth Model; CGM = Conditional Growth Model; BC = Schwarz's Bayesian Criterion; AIC = Akaike's Information Criterion; Deviance = –2 Log Likelihood; Size of Effect = Pseudo- R²; Deviance = –2 Log Likelihood; AIC = Akaike's Information Criterion. **p < .01. ***p < .001.

Table 7
Growth curve models examine the proportion of total outcome variation that is related to between-individual differences. The interclass correlational coefficient (ICC) describes the magnitude of the variance components that is attributed to differences between individuals. ICC values lie between 0 and 1 and show how much of the total variation exists at level 2 between clients (Peugh, 2010). Values closer to 1 indicate larger variance on between-individual difference (Shek & May, 2011). The ICC indicates that about 87% of the total variation is occurring between clients on level 2 compared to approximately 13% within clients on level 1. This significant variation may be further explained by adding additional predictors on level 2.

**Unconditional Growth Model (UGM).** The unconditional growth model serves as a baseline to evaluate subsequent models. The UGM estimates individual variation of growth rates within person and between participant. The time predictor (i.e., sessions) was added to the model to estimate the linear change trajectory across all clients. There are no other predictors in the model.

Table 7 illustrates the parameter estimates for the unconditional growth model. Fixed effects represent the average intercept and average slope for all clients. In the UGM, the fixed effect for the intercept indicates that the average level of psychological distress for clients at initial status is 68.37 \( (p < .001) \). The fixed effect for slope suggests that distress levels decrease over time on average by \(-0.97 \ (p = .023)\) per session. Therefore, the UGM predicts above-average client psychological distress scores (compared to the clinical cut off of 63) and with the addition of time in therapy, clients’ psychological distress was reduced by almost 1 point per session.

Comparing within-individual variation in initial status with UMM and UGM, there was a decline in the residual variance of 19.4 (68.50 to 49.01). These results suggest that about 19% of
the within-individual variation of OQ-45.2 scores was associated with a linear rate of change. The correlation \((B = 3.90, \ SE = 7.73, p = .614)\) between the intercept and the linear growth parameter was positive. This suggests that clients with higher OQ-45.2 scores had a faster linear decrease compared to clients with higher OQ-45.2 scores, who had a slower decrease in linear growth over time.

In the UGM, the random effects are the within-individual (i.e., residual) and the between-individual (i.e., intercept) error variances. Between-individual variance includes error associated with the difference in initial status and difference in slope. Small random components suggest accuracy in the fixed estimates of the intercept and slope for each client, whereas large random components suggest large differences in clients across intercepts and slopes (Kahn & Schneider, 2013). On level 1 (within clients), the error variance is 49.01, a decrease from 68.50 in the first model (UMM). The error variances on level 2 (between clients) are 379.95 \((p < .001)\) for the intercept and 3.90 \((p = .614)\) for the slope. These results suggest that there was significant variation among clients in their initial levels of psychological distress and in the rates that change occurred. Furthermore, these findings indicate that there was still additional variance to be explained with additional predictors.

As predictors are added during the model-building process, the reduction in outcome variation is the proportion of variance explained in the random effects. Kwok and colleagues (2008) recommended using pseudo-\(R^2\) because it is easy to compute and provides an understandable measure of effect size. The pseudo-\(R^2\) is computed by taking the difference between the residual from UMM and the residual from the UGM and dividing by the residual from the UMM. Thus, 28% of the within-client variation in psychological distress could be explained by time in therapy (i.e., \(R^2_e = (68.50−49.01)/(68.50) = 0.28\)). Table 7 depicts the
pseudo-$R^2$ statistic. Thus, the reduction of error variance on level 1 from the unconditional means model to the unconditional growth model illustrated the effect of adding time as a predictor. Therefore, the UGM indicates that linear time was significant and accounts for approximately 28% of the variation in clients’ psychological distress.

The likelihood ratio test is also another tool to compare how well models fit the data. The likelihood ratio test and deviance statistics in the UGM (1283.78) is lower than the deviance statistics in the UMM (1317.13), indicating that the UGM is a better fit compared to the UMM. Table 7 includes the deviance statistic as a criterion for model building. Given that there is more unexplained variance, level 2 predictors were added to test another model.

**Conditional Growth Model (CGM).** Once the optimal baseline growth models were established to provide insight into how much outcome variance resided at each level, the model was expanded to include one or more predictors. Variance components in the conditional growth model are compared to the variance in the unconditional growth model to estimate effect size of the variables tested. The inclusion of predictors in the model resulted in a conditional growth model as the fixed and random effects are now conditioned on the predictors. Before designating the TASC attachment predictor variables into the model, a covariate was tested to explore the effects of prior treatment. For this exploratory analysis, a covariate was incorporated into the model to consider whether “continuing” clients (i.e., those that received prior therapy) had an effect on the shape of individual growth trajectories in terms of psychological distress. “Continuing” was not a significant predictor of the linear changes in OQ-45.2 ($B = .103$, $SE = 8.79$, $p = .907$). Thus, clients who engaged in prior therapy did not seem to explain the variation in OQ-45.2 scores.
The primary model of interest involved the effects of therapist attachment on the change in OQ-45.2 and WAI-SR scores over 11 therapy sessions. To use attachment scores as predictors for change in OQ-45.2 scores over time, attachment scores were treated as time-variant level-one predictors to determine if change over time predicts the growth trajectory of client psychological distress. The model examined whether attachment scores were predictors of the intercept, linear, quadratic, and cubic parameters. Before being included in the model, therapist trainee attachment classifications (i.e., Balance, Coercing, and Detaching) were mean-centered such that the predictors were rescaled by subtracting the mean. Grand mean centering subtracts the individual’s group mean from the individual’s score. In general, centering makes this value more interpretable because the expected value of $Y$ when $x$ (centered $X$) is zero represents the expected value of $Y$ when $X$ is at its mean (Khan, 2011; Singer & Willett, 2004). Not only is the average intercept impacted by centering, but the variance of the intercepts is affected by centering as well.

The model included centered scores for Balance, Coercing, and Detaching as predictors of change in client psychological distress. The model also included centered scores for Balance, Coercing, and Detaching as interactions with the addition of change over time. All three variables were evaluated by their impact on significant reduction in deviance and significant fixed effects. The deviance fit statistic for the conditional growth model (1256.59) is lower than the deviance statistics in the unconditional growth model (1283.78), indicating that the addition of the predictors improved the fit of the model. Although the within- and between-person variability was reduced in this model with nonsignificance, a high degree of variability in scores still remains.
Figure 4 is the plot for the linear model of OQ.45.2 scores with the centered TASE classification (i.e., Balance, Coercing, and Detaching) predictors. The figure illustrates a comparison between the mean therapist attachment classification scores and clients’ mean scores of psychological distress (i.e., OQ-45.2) over the course of therapy.

**Figure 4**

*Plot for OQ and Therapist Attachment Classifications*

![OQ and Therapist Attachment Classifications](image)

*Note: A = Detaching; B = Balance; C = Coercing.*

Table 7 displays the results of testing both the Balance, Coercing, and Detaching predictor variables and the Balance, Coercing, and Detaching variables with time. A nonsignificant effect for the centered Balance predictor was found \( (B = -2.39, SE = 4.67, p = .621) \) on the initial status. This means that the higher centered value on Balance scores is not associated with lower client psychological distress scores. There was no effect for the interaction between Balance and OQ-45.2 scores \( (B = .260, SE = .33, p = .43) \). This indicates that a classification of Balance for therapists does not predict linear change in client psychological distress over time. Also, a nonsignificant effect for the centered Coercing predictor was found
(B = −1.82, SE = 2.93, p = .539) on the initial status. In other words, a higher centered value on Coercing scores is not associated with lower client psychological distress scores. Similar to the Balance classification, there was no effect for the interaction between Coercing and OQ-45.2 scores (B = .030, SE = .17, p = .87), suggesting that Coercing therapist classifications do not predict a linear change in client psychological distress over time. Last, a nonsignificant effect for the centered Detaching predictor was found (B = −5.77, SE = 5.43, p = .30) on the initial status, meaning that a higher centered value on Detaching scores is not associated with lower client psychological distress scores. Finally, a significant interaction effect was found between Detaching and OQ-45.2 trajectories (B = .78, SE = .37, p < .05).

Figure 5 graphically depicts the cross-level interaction effect of therapist high Detaching scores versus therapist low Detaching scores on the reduction of client psychological distress trajectory. The high Detaching group consists of therapists with a Detaching score of 3 or higher. The low Detaching group contains therapists scoring 3 or lower. It is evident from the slopes that the level of client psychological distress of low Detaching therapists decreased substantially over time. In other words, clients with higher initial psychological distress levels experienced a larger clinically significant reduction in psychological distress symptoms over time with therapists with low Detaching scores compared to therapists with high Detaching scores whose clients demonstrated negligible effect.

To summarize, the unconditional mean model and the unconditional growth model were constructed to shed light on the amount of outcome variation at each level and to assess the necessity of adding a time predictor variable. The UMM estimated the amount of outcome variance within clients (level 1) compared to the amount of outcome variance between clients (level 2). Eighty-seven percent (87%) of the variance in outcome existed primarily between
clients on level 2. This suggests that there is still a significant variation between clients that further testing will help to uncover the impact on the distribution of that variance. The unconditional growth model compared the change in outcome variation with the addition of the time predictor variable. In other words, this model estimated the how much variation was a function of time clients were in therapy. The UGM provided evidence that changes in client psychological distress was a function of time in therapy. However, there remained unexplained variance. Last, the conditional growth model introduced three level 2 therapist attachment predictors and compared variance to the UGM. A significant linear time effect was found with OQ-45.2 scores. Moreover, a significant cross-level interaction was found between OQ-45.2 scores over time and the Detaching classification.

**Figure 5**

*Cross-Level Interaction of Therapist Detaching and Client Psychological Distress Over Time*
To summarize, the unconditional mean model and the unconditional growth model were constructed to shed light on the amount of outcome variation at each level and to assess the necessity of adding a time predictor variable. The UMM estimated the amount of outcome variance within clients (level 1) compared to the amount of outcome variance between clients (level 2). Eighty-seven percent (87%) of the variance in outcome existed primarily between clients on level 2. This suggests that there is still a significant variation between clients that further testing will help to uncover the impact on the distribution of that variance. The unconditional growth model compared the change in outcome variation with the addition of the time predictor variable. In other words, this model estimated the how much variation was a function of time clients were in therapy. The UGM provided evidence that changes in client psychological distress was a function of time in therapy. However, there remained unexplained variance. Last, the conditional growth model introduced three level 2 therapist attachment predictors and compared variance to the UGM. A significant linear time effect was found with OQ-45.2 scores. Moreover, a significant cross-level interaction was found between OQ-45.2 scores over time and the Detaching classification.

**Change in Working Alliance**

The second research question asked, “Do therapist trainees’ clients produce better ratings of the working alliance over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?” Growth curve modeling was used to answer this research question that assessed clients’ perception of the quality of the working alliance over time as a function of therapist attachment through three models tested: (1) an unconditional mean model (UMM), (2) an unconditional linear growth model (UGM), and (3) a
conditional growth model (CGM). Table 8 displays the results from multilevel analyses for comparison during the model building process.

**Unconditional Mean Model (UMM).** The overall intercept depicts the grand mean of all the WAI-SR scores for all clients across all sessions, reflecting the variation in client perception of the therapeutic working alliance, without regard to time. Table 8 depicts that the grand mean of working alliance is 4.11 ($p < .001$).

In the UMM, the random effects are the within-individual (i.e., residual) and the between-individual (i.e., intercept) error variances, detecting the variation at each level. If both within- and between-individual effects are significantly different from 0, then there is further variance to be explained by predictors. Table 8 shows the within-client level of variation is .150 ($p < .001$). The amount of variation at the between-client level is .294 ($p = .003$). These variances indicate that average levels of client-perceived working alliance varied both within clients across sessions and between clients in comparison to one another. Thus, further model building is warranted.

The proportion of total outcome variation is related to between-individual differences. The interclass correlational coefficient indicates that about 66% of the total variation is occurring between clients on level 2 compared to approximately 34% within clients on level 1. This significant variation may be explained by adding additional predictors on level 2.
### Table 8

#### Multilevel Model Tests for Change in the Working Alliance (Working Alliance Inventory – Short Revised)

<table>
<thead>
<tr>
<th>Category</th>
<th>Parameter</th>
<th>UMM</th>
<th>UGM</th>
<th>LMN</th>
<th>BIC</th>
<th>AIC</th>
<th>Deviance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Effects</td>
<td>Initial Status</td>
<td>147.98</td>
<td>147.63</td>
<td>145.90</td>
<td>151.40</td>
<td>151.90</td>
<td>153.18</td>
</tr>
<tr>
<td></td>
<td>Rate of Change</td>
<td>1.91 (.122)***</td>
<td>3.68 (.199)***</td>
<td>1.02 (.026)*</td>
<td>48.32 (2.43)***</td>
<td>.825 (.183)***</td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Intercept</td>
<td></td>
<td></td>
<td></td>
<td>.150 (.021)**</td>
<td>.294 (.099)**</td>
<td>45.58 (12.89)**</td>
</tr>
<tr>
<td></td>
<td>Linear Slope</td>
<td></td>
<td></td>
<td></td>
<td>.084 (.015)**</td>
<td>.754 (.271)***</td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Time × Balance - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Time × Coercing - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Time × Deciding- T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Balance - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Coercing - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Deciding - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Continuing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Initial Status</td>
<td>102 (0.26)***</td>
<td>3.68 (1.99)***</td>
<td>4.11 (1.22)***</td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Linear Slope</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Time × Balance - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Time × Coercing - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Time × Deciding- T</td>
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<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Balance - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Coercing - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Deciding - T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
<tr>
<td></td>
<td>Continuing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12.70 (1.80)***</td>
</tr>
</tbody>
</table>

Note: The table displays estimates with standard errors in parentheses. Parameter definitions: $\beta_{00}$ = Average initial score when all predictors are 0; $\beta_{10}$ = Average change per session when predictors are 0; $e_r$ = Error variance within clients on level 1; $r_0$ = Error variance in the intercept when predictors are 0; $r_1$ = Error variance in the slope term between clients on level 2; $\sigma^2_{i0}$ = Average initial score when all predictors are 0. P00 = Average initial score when all predictors are 0.
**Unconditional Growth Model (UGM).** Table 8 lists the unconditional growth model for WAI-SR scores, which estimates change over time. The time predictor (i.e., sessions) was added to this model to estimate the average linear change trajectory across all clients. No other predictors were included in the model. Fixed effects represent the average intercept and average slope for all clients. The intercept is the average initial reported working alliance across clients on level 2, and the slope is the average pattern of change across clients on level 2. There was a significant linear increase in WAI-SR scores ($B = .102$, $SE = .03$, $p < .003$), respectively. The fixed effect for the intercept indicates that the average level of working alliance rating at initial status is 3.68 ($p < .001$). The fixed effect for slope suggests that the quality of the working alliance increased over time on average by .102 ($p = .003$) per session. The random error terms associated with the intercept and linear effect were significant ($p < .05$), suggesting that the variability in these parameters could be explained by between-individual predictors. Therefore, the UGM predicts average client working alliance scores and with the addition of time in therapy, clients’ perception of working alliance increased per session.

Comparing within-individual variation in initial status with UMM and UGM, there was a decline in the residual variance of .065 (.150 to .084). These results suggest that about 7% of the within-individual variation of WAI-SR scores was associated with a linear rate of change. The correlation ($B = -.071$, $SE = .035$, $p < .05$) between the intercept and the linear growth parameter was negative. This suggests that clients with high WAI-SR scores had a slower linear increase compared to clients with low WAI-SR scores, who had a faster increase in linear growth over time.

In the UGM for the WAI-SR scores, the random effects are the within-individual (i.e., residual) and the between-individual (i.e., intercept) error variances. Between-individual
variance includes error associated with the difference in initial status and difference in slope. On level 1 (within clients), the error variance is .084, a decrease from .150 in the first model (UMM). This suggests that time reduced unexplained variance. The error variances on level 2 (between clients) are .754 ($p < .005$) for the intercept and –.071 ($p = -2.057$) for the slope. These results suggest that there was significant variation among clients in their initial levels of perception of the working alliance and in the rates that change occurred. Furthermore, these findings indicate that there was still unexplained variability to be explained with additional predictors.

The pseudo-$R^2$ is the proportion of variance explained in the random effects. The pseudo-$R^2$ was computed at .44. Thus, 44% of the within-client variation in psychological distress could be explained by time in therapy (i.e., $R_e^2 = (.150-.084)/.150 = 0.44$). Thus, the reduction of error variance on level 1 from the unconditional means model to the unconditional growth model illustrated the effect of adding time as a predictor. Therefore, the UGM indicates that linear time was significant and accounts for approximately 28% of the variation in clients’ perception of the quality of the working alliance.

The unconditional mean model was compared to the unconditional growth model with the likelihood ratio test and deviance statistic. The deviance statistics in the UGM (119.11) is lower than the deviance statistics in the UMM (159.40). This indicates that the UGM is a better fit compared to the UMM. Table 8 includes the deviance statistic as a criterion for model building. Given that more unexplained variance existed, level 2 predictors were added to the model and tested.

**Conditional Growth Model (CGM).** In this section, I will provide an illustration of the conditional growth model (UGM) with the introduction of level 2 predictor variables (i.e., TASc
attachment predictor variables) into the model. Before doing so, a covariate was tested to explore the effects of prior treatment. For this exploratory analysis, a covariate was incorporated into the model to consider whether “continuing” clients (i.e., those that received prior therapy) had an effect on the shape of individual growth trajectories in terms of the quality of the working alliance. Similar to testing a covariate for linear change with client psychological distress, “continuing” was not a significant predictor of the linear changes in WAI-SR ($B = -.423$, $SE = 3.10$, $p = .286$).

Similar to how the conditional growth model was constructed with client psychological distress, three therapist attachment predictors were added to examine the quality of the working alliance over the course of therapy. Once again, attachment scores were mean-centered as predictors for change in WAI-SR scores over time. These mean-centered predictors were treated as time-variant level-one predictors to determine if change over time predicts the growth trajectory of client-rated working alliance.

Most like the CGM for client psychological distress, the CGM for the working alliance included mean-centered scores for Balance, Coercing, and Detaching as predictors of change in psychological distress. The model also included centered scores for Balance, Coercing, and Detaching as interactions with the addition of change over time. The three predictors were assessed by their impact on significant reduction in deviance and significant fixed effects. The deviance fit statistic for the conditional growth model (112.43) is lower than the deviance statistics in the unconditional growth model (119.11), indicating that the addition of the predictors improved the fit of the model.

Figure 6 is the plot for the linear model of WAI-SR scores with the mean-centered therapist attachment classifications (i.e., Balance, Coercing, and Detaching) as predictors. The
figure illustrates a comparison between the mean therapist attachment classifications scores and clients’ perception of the quality of the working alliance (i.e., WAI-SR) over the course of therapy.

**Figure 6**
*Plot of WAI and Therapist Attachment Classifications*

![Plot of WAI and Therapist Attachment Classifications](image)

*Note.* A = Detaching; B = Balance; C = Coercing.

As shown in Table 8, a nonsignificant effect for Balance \( (B = -1.14, SE = 1.86, p = .542) \), Coercing \( (B = -.512, SE = 1.12, p = .651) \), and Detaching \( (B = .085, SE = 2.37, p = .972) \) predictors was found. Results indicate that while clients’ working alliance ratings improved, the change was not a function of therapist attachment classifications. With the addition of time, a nonsignificant interaction effect for Balance \( (B = .156, SE = .253, p = .539) \), Coercing \( (B = -.074, SE = .132, p = .58) \), and Detaching \( (B = .091, SE = .309, p = .768) \) was also found.
In sum, results of the models testing the quality of a client-rated working alliance indicated nonsignificant findings. That is, although the quality of the working alliance improved over time, it was not a function of the therapist attachment classification.

**Relationship Between Therapist Attachment and Mentalizing**

The third research question asked, “What is the relationship between therapists’ global scores of attachment (i.e., Balance, Coercing, and Detaching) and therapists’ reflective functioning scores (i.e., Certainty and Uncertainty)?” Table 9 displays the correlations between these variables. A Pearson’s product-moment correlation was tested to assess the relationship between therapist attachment classifications (i.e., Balance, Coercing, and Detaching) and therapist mentalization (i.e., Certainty and Uncertainty). Preliminary analyses showed the relationships to be linear with variables normally distributed as assessed by Shapiro-Wilk’s test ($p > .05$), and there were no outliers. A nonsignificant correlation was found between therapists’ Balance classification and therapist Certainty, $r(21) = .168$, $p = .445$, and therapist Uncertainty, $r(21) = -.356$, $p = .096$. There was no relationship found between therapist Coercing classification and therapist Certainty, $r(21) = -.242$, $p = .267$, and Uncertainty, $r(21) = .385$, $p = .070$. Nor was there an association found between therapists’ Detaching classification and Certainty, $r(21) = .33$, $p = .307$, and Uncertainty, $r(21) = -.06$, $p = .937$. 
Table 9

Pearson Correlation of Therapist Attachment (TASc) and Mentalizing (RFQ)

<table>
<thead>
<tr>
<th>Measure</th>
<th>$n$</th>
<th>$M$</th>
<th>$SD$</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TAScBal</td>
<td>23</td>
<td>3.67</td>
<td>1.06</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>2. TAScCoer</td>
<td>23</td>
<td>2.83</td>
<td>1.92</td>
<td>−.43*</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3. TAScDetach</td>
<td>22</td>
<td>1.61</td>
<td>0.91</td>
<td>−.03</td>
<td>0.35</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>4. RFQCertain</td>
<td>23</td>
<td>1.33</td>
<td>0.51</td>
<td>.168</td>
<td>−.242</td>
<td>.33</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5. RFQUncertain</td>
<td>23</td>
<td>0.29</td>
<td>0.31</td>
<td>−.356</td>
<td>.385</td>
<td>−.06</td>
<td>−.56*</td>
<td>—</td>
</tr>
</tbody>
</table>

*Note. N = 23; TAScBalance = Therapist Attunement Scale – Balance; TAScCoer = Therapist Attunement Scale – Coercing; TAScDetach = Therapist Attunement Scale – Detaching; RFQCertain = Reflective Functioning Questionnaire Certain; RFQUncertain = Reflective Functioning Questionnaire Uncertainty.

* $p < .05$; ** $p < .01$.

Summary of Results

In this study, I sought to uncover if therapist trainees’ attachment-related characteristics (i.e., attachment classification and mentalizing) may potentially influence the quality of the working alliance and their clients’ psychotherapy outcome. Specifically, I employed multilevel modeling to analyze clients’ overall psychological distress, quality of the working alliance, and the speed with which psychological symptoms decreased and the working alliance improved. Additionally, I utilized a Pearson’s product-moment correlation to assess the relationship between therapists’ attachment classifications and the quality of mentalizing.

In this study, several key findings emerged from the data analyses. In terms of how clients change over the course of therapy, a significant linear time effect was found with OQ-45.2 scores, indicating a general trend toward decreasing overall psychological distress over time. This study supports previous findings that the improvement in psychological distress
symptoms underscores what a vast body of research has demonstrated—that a substantial number of individuals who engage in psychotherapy not only benefit from therapy but also demonstrate clinically meaningful change. However, there was no significant main effect or interaction effect of therapists’ Balance classification on clients’ decrease in psychological distress. There was also no significant main effect or cross-level interaction effect found between therapists’ Coercing classification and clients’ decrease in psychological distress. Nor was there a significant main effect found between therapists’ Detaching classification and clients’ decrease in psychological distress. There was, however, a significant interaction found between therapists’ Detaching classification and a decrease in clients’ psychological distress, if the random slope for time was removed. This finding points to not only a new way of conceptualizing therapist attachment on a continuum but also that therapists classified as low Detaching are closer to Balanced than we might expect. In general, clients’ psychological distress decreases over the course of psychotherapy, but it is not predictive of therapists’ attachment classification. Moreover, clients with higher initial psychological distress levels experienced a larger reduction in psychological distress symptoms over time with therapists with low Detaching scores compared to therapists with high Detaching scores.

In terms of assessing the change in working alliance, a significant linear time effect was found with WAI-SR scores, pointing to improvement in the quality of the working alliance over the course of therapy. There were no main or interaction effects found between therapists’ Balance classification and the improvement of the working alliance. Similarly, there were no main or interaction effects found between therapists’ Coercing classification and the improvement of the working alliance. Moreover, there were no main or interaction effects between therapists’ Detaching and the improvement of the working alliance. Therefore, clients’
perception of the working alliance improved over the course of psychotherapy but not as a predictive function of therapists’ attachment classification.

According to the correlation results, there was no significant relationship between three therapist attachment classifications and two aspects of mentalizing. In the next chapter, I provide further interpretation of these findings as well as suggestions for future research in this area.
CHAPTER IV
DISCUSSION

In this chapter, I will provide a discussion of the primary research findings in relation to the research questions as well as the current literature in the field of psychotherapy. The chapter is organized into three sections. In the first section, I will present summaries and interpretations of the primary research findings, including the relevance to current scholarship. In the next section, I will address limitations of the current study and its findings. To address the limitations of this study, I offer recommendations for alternative approaches. In the last section, I present implications of the current findings for future research and clinical training. The chapter concludes with a brief chapter summary. The following questions were addressed by the current study:

1. Do therapist trainees’ clients produce larger reductions in psychological distress over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?

2. Do therapist trainees’ clients produce better ratings of the working alliance over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching)?
3. What is the relationship between therapists’ global scores of general attachment security (i.e., Balance) and therapists’ reflective functioning scores (i.e., Certainty and Uncertainty)?

The purpose of this present study sought to extend understanding of what therapist attachment-related characteristics are attributable to the variation in client psychotherapy process and outcome. Due to the majority of previous studies’ focus on client attachment orientations and responses to therapy, in this study I sought to further examine what therapist characteristics predict variation in psychotherapy outcome. Specifically, this study examined whether therapist trainees’ attachment-related characteristics predicted patterns of session-by-session change in client psychological distress and the working alliance. Previously, attachment researchers have relied on lengthy, time-consuming structured interviews or self-report measures assessing close romantic relationships as a metric for evaluating attachment. Instead, a recently validated, ground-breaking instrument, developed for the psychotherapy context, was utilized to measure therapist attachment. Additionally, this study intended to gain greater knowledge about the relationship between attachment and the concept of mentalizing.

Client growth trajectories were examined for differences in the overall reduction in psychological symptom distress, improvement in the therapeutic relationship, and the speed at which both distress and alliance changed, based on therapist trainees’ attachment classification. Growth curve modeling was used to identify individual client change trajectories and evaluate effects both within and between clients and compare them as a function of therapist trainees’ attachment classification. Pearson product-moment correlations were used to evaluate the association between therapist trainees’ attachment classifications and the quality of the mentalizing with clients.
Primary Research Findings

In this next section, I provide a discussion of the results of the research findings. The hypotheses are restated, followed by a review of the results and an interpretation of the outcomes. In the first subsection, I present findings regarding the function of therapist trainees’ attachment classification on client psychological distress and the speed of change over the course of psychotherapy treatment. In the second subsection, I present findings regarding the function of therapist trainees’ attachment classification on the quality of the working alliance and the speed of change over the course of psychotherapy treatment. In the third subsection, I review findings related to the relationship among therapist attachment security and the quality of mentalizing.

Client Psychological Distress

The hypothesis that therapist trainees’ clients would demonstrate larger reductions in psychological distress scores over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching) was not supported. An important contribution of this study was the finding that client psychological distress was reduced over the course of therapy. The findings indicated that therapist trainees’ clients generally initiated psychotherapy treatment with OQ-45.2 scores that were well above the clinical significance score and their OQ-45.2 scores decreased with each session.

Contrary to theory-driven expectations, therapist trainee markers of security (i.e., Balance) were not a function of change in psychological distress levels over time. More specifically, the effect of therapist trainee attachment classification statistically eliminated the role of attachment in understanding distress symptom changes. This finding is not consistent with previous research that has reported significant associations between therapist security and
initial psychological distress levels or to changes in distress levels over time (Levy et al., 2011) but is consistent with other studies that have reported positive associations between therapist attachment and client treatment response. The inconsistency in this finding may have to do with difference in samples or measurement-related concerns. For example, differences include the use of samples from a nonclinical population in some studies as well as the differences in the number, length, and type of psychotherapy outcome measure.

The findings in this study were somewhat surprising that Balanced therapist trainees did not fare better with their clients over time. Consistent with the literature, previous attachment researchers have found mixed results in the effects that therapists’ attachment classifications have on client treatment outcomes. In a systematic review of 11 studies, Degnan et al. (2016) reported preliminary support that therapist attachment has the potential to influence the outcome of therapy, but some individual study findings yielded mixed results. In one study, Bruck et al. (2006) found a direct relationship between therapist attachment security and improved therapy outcomes whereby higher attachment security was moderately correlated with improved client-reported interpersonal problems. In a second study, Schauenburg and colleagues (2010) found that higher therapist attachment security was associated with a reduction in clients’ level of psychological distress, post psychotherapy. One potential implication for these inconsistencies might be that therapist attachment may produce difference change patterns for clients. In other words, the effects of therapists’ attachment dynamics on treatment responding may differ at different stages of therapy. In this current study, therapist attachment classifications (i.e., Balance, Coercing, and Detaching) assessed at one given session predicted patterns of session-by-session changes in client treatment responses over time.
Contrary to the hypothesis, multilevel model testing also indicated that therapists with a Detaching classification, specifically, low Detaching compared to high Detaching, predicted a reduction of clients’ psychological distress symptoms. Notably, these therapist trainees’ clients demonstrated a clinically significant reduction in psychological distress with a drop of 14 points from baseline. This finding is inconsistent with the current research. For example, Dozier and colleagues (1994) found that case managers who were more dismissing (i.e., Detaching) seemed to intervene in less depth than those more preoccupied (i.e., Coercing).

Several factors might explain the aforementioned discrepancy. Although Dozier and colleagues (1994) explored how attachment classifications seem to be related to ways in which therapists manage emotional proximity and mentalizing, their study relied on retrospective reports rather than observation. Furthermore, the therapists’ interventions were coded for depth of intervention and attention to dependency needs. Likewise, more recent work examining therapist attachment has not focused on therapists’ behavior (Dinger et al., 2009; Petrowski et al., 2011; Petrowski et al., 2013; Schauenburg et al., 2010; Tyrrell et al., 1999).

Talia’s recent investigation on therapists’ attachment-related differences concentrates on observing the process of attunement as a way to integrate emotional proximity and mentalizing. It is important to note that the TASc instrument is not a categorical or interview-based measure but rather an observer-rated measure purporting to detect moment-to-moment differences of in-session markers of attachment that are specific to discourse. The TASc provides a method for assessing attachment differences as reflected in differences in how therapists establish trust in the relevance of what they communicate (i.e., epistemic trust). Although the therapist trainees in this study were categorized as Detaching, nearly half the therapists (54%) coded were classified as low Detaching. From the verbatim transcribed sessions, therapists are classified in one of three
classifications, each along a continuum rated on the frequency and intensity of communication markers. Therapists classified as Detaching, for example, use the same communication markers as Balanced (i.e., Self-State Conjecture, Empathic Validation, and Joining) but only sparingly. In this sense, therapists deemed low Detaching are thus placed on the lower end of the continuum whereby they exhibited more “balanced” communication markers.

**Quality of Working Alliance**

The hypothesis that clients would demonstrate stronger working alliance scores over time as a function of therapist trainees’ global scores of general attachment security (i.e., Balance) compared to those therapists with global scores of general attachment insecurity (i.e., Coercing and Detaching) was not supported. Although results confirmed the expectation that the quality of the working alliance would improve over the course of therapy, this was not directly a function of the therapist trainees’ attachment security (i.e., Balance).

These results are somewhat consistent with previous research that reported mixed results of therapist secure attachment as a positive predictor of a strong working alliance. For example, Dinger and colleagues (2009) found that therapists with high anxiety were associated with an overall lower quality of working alliance. Another study by Eames and Roth (2000) found that therapists high in avoidance reported lower level of working alliance ratings with their clients. A study by Romano et al. (2008) showed that highly avoidant therapists had less session depth (as cited in Marmarosh, 2014). These avoidantly attached therapists might tend to withdraw from their more anxious clients and be unable to attune to the clients’ emotional bids for trust. Similarly, Sauer et al., (2003) found that therapist attachment anxiety had an initial positive impact on client working alliance following the first session. This process, however, reversed itself whereby therapist attachment anxiety had significant negative effects on the working
alliance across time. Sauer and colleagues posited that a working alliance “honeymoon” period quickly waned when clients were working with more anxiously attached therapists. Conversely, Black and colleagues (2005) found that therapists associated with secure classifications reported a stronger working alliance with their clients overall. In another study, Schauenburg and colleagues (2010) reported that therapists with a high level of security (as assessed by the AAI) were associated with improved client-rated working alliances. In contrast, Ligiéro and Gelso (2002) found no association between therapist attachment and working alliance.

This complex relationship between therapist attachment and the working alliance in psychotherapy uncovered in this study is consistent in many ways with aspects of previous research. On the basis of the results of this current study, fostering an increased awareness of therapist attachment-related discourse markers could assist therapists in providing a relational environment that facilitates epistemic trust and secure attachment to the therapist. Subsequently, by doing so, therapists may promote and engender a stronger therapeutic bond and ultimately more improved therapy outcomes.

Mentalizing

In this study, I sought to understand the relationship between therapist trainees’ attachment classifications and their mentalizing abilities using the Reflective Functioning Questionnaire as an indicator. The null hypothesis that there would not be a relationship between therapists’ global scores of attachment security (i.e., Balance) and therapists’ reflective functioning scores (i.e., Certainty and Uncertainty) was supported. Mentalizing capabilities are known to play a key role in the development of attachment (Fonagy & Bateman, 2006), so it stands to reason that there would not be a correlation between secure attachment (i.e., Balance classification) and ineffective mentalizing (i.e., high scores on Certainty and Uncertainty). As
outlined in Chapter II, individual scores rated high on the subscales of Certainty and Uncertainty are related to ineffective mentalizing, whereas lower scores on the subscales of Certainty and Uncertain indicate genuine mentalizing.

The results from this study were consistent with previous findings (Cologon et al., 2017). At the time of this writing, only one study has been identified that explored the effect of therapists’ mentalizing capabilities on the outcome of psychotherapy. Cologon and colleagues (2017) investigated the relationship between two therapist characteristics, attachment and mentalizing, from a sample of 25 therapists from differing theoretical orientations, and the effect on psychotherapy outcome. These researchers found evidence that therapists with a secure attachment (as assessed with the AAI) demonstrated more genuine mentalizing abilities compared to therapists with high anxiety and high avoidance attachment who exhibited poor mentalizing abilities. An important contribution of this study was the finding that therapist trainees with secure attachment (i.e., Balance classification) were associated with genuine mentalizing scores. This finding is promising as attachment researchers continue to narrow the gap between mentalizing and attachment in the context of psychotherapy.

Several contemporary researchers have asserted that mentalization, to some extent, may be a prerequisite for effective use of psychotherapy (Lemma et al., 2011; Taubner et al., 2011). Still, to this day, we have insufficiently addressed the role of mentalizing and the therapist effect on the outcome of psychotherapy. In a recent review, Katznelson (2014) concluded that the evidence is inconclusive at best “with regards to how levels of RF are predictive of psychotherapy outcome” (p. 115). As researchers continue to uncover the predictive nature of mentalizing in the context or psychotherapy, it is worth mentioning that it has been hypothesized that mentalizing occurs in part through interpersonal communication processes that underpin the
development of epistemic trust, a capacity for openness as a source of knowledge about oneself and the world (Fonagy et al., 1998; Nolte et al., 2011). Perhaps then the findings of this study shed more light on the nuanced relationships among attachment, mentalizing, and epistemic trust, which may foster improved client outcomes in psychotherapy.

**Limitations of the Study**

In this section, I review several limitations related to this study. Specifically, I discuss the generalizability of the findings. In the first subsection, I address generalizability of the findings due to its limitations regarding the participant sample. In the second, I review the limitations related to variable measurements.

**Participant Sample**

A primary limitation of this current study addresses concerns with the participant sample size. First, although over 50 participants were recruited to participate in the study, the final sample consisted of only a small percentage of respondents ($n = 23$). Due to issues with poor audio quality, transcription of therapy sessions became problematic, and thus those therapist trainees’ sessions were excluded from the study. Additionally, therapist trainees with multiple clients posed conceptual and practical barriers for the statistical analyses. Thus, only the first client for each therapist was selected for inclusion in the participant sample. Trimming the data in this manner further reduced the sample. Although sensitivity of the statistical analyses confirmed the results of the overall sample, a larger sample size may have given greater power to detect alliance and outcome trajectories or cross-level interaction effect for the client ratings, thus providing more information that could increase the generalizability of the results.

Second, another factor in regard to limitations of generalizability involves concerns with the sample being predominantly White and female. With respect to race and ethnicity, out of the
23 respondents, the vast majority were White (83%). There were very few therapist trainee participants who described themselves as African American/Black, Asian American or Pacific Islander, Hispanic/Latinx, or bi-racial/multi-racial. Data from this study were collected from therapist trainees at a predominantly White university training clinic located in the Midwest, which do not represent ethnically/racially diverse therapist trainees. Therefore, results found in this current study may limit generalizability to other mental health settings and geographical locales. Moreover, the majority of the participants were female (70%), which limits the understanding gained from therapist trainees of other genders. Additionally, the design of the demographic questionnaire lacked inquiry regarding participants’ sexual orientation. Hence, information pertaining to the participants’ sexual identities remains unknown. Due to these limitations, generalizability of these findings should be made judiciously in future investigations.

A third limitation that is perhaps the largest threat to external validity is the participant sample of exclusively therapist trainees. Prior to the therapist trainees’ practicum experience (from which data were gathered), they were limited solely to role-play experiences in a counseling skills technique course. Thus, therapy that the trainee participants provided was indeed their first encounter with a real client. The lack of experience in therapy was likely anxiety-provoking, especially knowing that they were supervised and evaluated live via video recording during the practicum class. It is plausible that the lack of experience in psychotherapy techniques and forming a strong therapeutic alliance with clients attenuated the relationship between working alliance and psychotherapy outcome. Although future research should consider using more experienced therapists in other clinical settings, it is important to note that mean scores of the working alliance in this present sample were comparable to mean scores on these variables in a sample of university counseling center clients (Mallinckrodt et al., 2005).
Measurements

A fourth limitation in this current study addresses concerns with how variables were measured. Similar to other psychotherapy process and outcome studies, the current study relied on gathering data from clients solely on the use of self-reports. Self-report measures are helpful because they are time-efficient and take into account the subjective experiences of internal feelings, thoughts, and personal interpretation to lived experiences. Assessing an individual’s subjective perspective was an intentional decision in this study because the acknowledgment of clients as primary change agents calls for the inclusion of their personal perspective (Bohart & Wade, 2013). The use of self-reports to recall information can also create concerns about the accuracy of an individual’s recalled experiences. Moreover, the bias of social desirability should be taken into account as a potential factor in response to some of the measures. Another disadvantage of this approach, however, is that the associations could be inflated or minimized by shared method variance due to multiple assessments by the same individual. However, recent meta-analysis of the alliance-outcome relationship suggests that the predictive value of clients and therapists’ alliance ratings are similar (Flückiger et al., 2018). Furthermore, Zilcha-Mano (2016) suggested that client-rated working alliances yield more robust predictors for subsequent session outcome change compared to therapist-rated working alliance. Future researchers may consider gathering outcome data from other therapist or observer perspectives.

One other factor that limits the generalizability of the findings refers to the restricted nature of data gathered from the intake through the first 11 sessions of psychotherapy. Although MLM accommodates missingness, it was still the case that some therapist trainees’ clients in this sample did not receive all 11 sessions of psychotherapy treatment. The number of clients rating the alliance was also relatively small with a greater proportion of missing data toward the end of
therapy, which makes estimates of the tail end of trajectories less precise and reliable. Drawing implications about how clients are affected by their therapists’ attachment classification in the later stages of therapy should be done with caution. While the aim of this study was not necessarily seeking to draw conclusions regarding later phases of therapy, it is important to note that the early phase of treatment is critical for establishing trust through a strong alliance and has predictive value for psychotherapy outcome (Flückiger et al., 2020). Perhaps measuring outcomes beyond session 11 would enable future researchers to more adequately explore patterns.

Therapist mentalizing was explored using the Reflective Functioning Questionnaire (RFQ), which was developed from the interview-based Reflective Functioning Scale (RFS) applied to the Adult Attachment Interview (AAI). Given the need for a brief, easy-to-administer measure that was not time- and labor-intensive, the RFQ measure was selected. One concern regarding this measure is the use of self-report. Typical of the use of self-report measures as addressed in the aforementioned section is that responses are limited to the interpretation of the respondent, and the therapist trainee participants may have attempted to appear more reflective than they are, as in the case of acquiescent response. Moreover, responses often cannot be verified for clarity or accuracy. Another concern with the RFQ is the limited use in nonclinical samples to date. Since this is the first study of its kind, a replication of this current study that includes using the interview-based measure is recommended for future research.

Therapist attachment classification served as the predictor variable and was assessed with the use of the Therapist Attunement Scales (TASc). To date, the TASc has been used only to measure therapist attachment-related differences in two validation studies from a European sample. Limitations to its use are that it lacks sufficient standardized norms to make comparisons
with the general population or norms to determine clinical significance. With respect to the participants’ observer-rated attachment classifications, there are implications for the training and supervision of emerging psychotherapists. This participant sample demonstrated higher levels of both attachment anxiety (i.e., Coercing) and attachment avoidance (i.e., Dismissing) than the normed samples. Such findings may be unique to this sample. Perhaps it suggests that therapist trainees may not be any more secure in their adult attachments compared to nonclinicians. With this insight, it may be helpful for training programs to educate trainees on their own attachment orientations and how they show up in psychotherapy.

**Implications for Research and Clinical Training**

Findings in this study have several implications for research and clinical training. To begin, the current findings extend previous attachment research concerning the relationship between therapist attachment-related characteristics and client treatment response in psychotherapy. Although therapist secure attachment (i.e., Balance classification) did not predict change in client psychological distress and the working alliance over time, therapist trainees’ clients did demonstrate significant clinical reduction of psychological symptom distress and an improved therapeutic alliance over the course of psychotherapy treatment. Moreover, clients of therapist trainees classified as low Detaching produced larger reductions in psychological distress over the course of therapy compared to clients of therapists classified as high Detaching.

Contemporary psychotherapy researchers continue to move toward attempting to understand mechanisms of change underlying psychotherapy outcomes. The insight gained from this study sheds new light on what we currently know about the personal characteristics of therapists and how they may influence the process and outcome of psychotherapy treatment. The findings from this current study add to a relatively small number of existing studies on the effect
of therapists on psychotherapy outcome to address inconsistencies and inconclusive previous findings. One reason previous studies seem to be inconclusive is that the majority have focused on client attachment and very few have examined the influence of therapist characteristics, namely attachment and mentalizing, on the process and outcome of psychotherapy. In addition, therapist attachment has historically been measured in a variety of ways, most notably self-report instruments that tap into romantic relationship contexts. This current study addresses these limitations by focusing on the influence of therapist characteristics and utilizing an advanced transcript-based attachment instrument that measures moment-to-moment discursive markers in a single psychotherapy session. It is recommended that this study be replicated with a larger sample of therapist trainees or experienced psychotherapists. It may also be helpful to revise this study. In addition to examining client psychotherapy outcome variables over time, it may also be advantageous to extend the length of treatment to 20 sessions and explore outcome effects post-treatment. To my knowledge, results could clarify future directions and promulgate next steps.

The findings in this current study also put forth another new frontier of exploration into the concept of mentalizing in the psychotherapy context. The research on attachment theory has a longstanding and extensive focus on both refining the theory and further reconceptualizing new ways. Fonagy, Luyten, Allison, and Campbell (2016) claimed that viewing attachment merely as a classification of “categories” is perhaps an outdated way of representing human differences. Perhaps attachment researchers, and the broader field of psychotherapy itself, might consider not a replacement of the developmental conceptualization but rather a new lens to incorporate its strengths. Fonagy and Campbell asserted that deficits in mentalizing are associated with attachment-related processes since they are predisposed by early familial relational problems. Perhaps then researchers might turn their attention to the concept of further developing
mentalizing abilities in order to learn from the interactions with others and incorporate this into an understanding of attachment behaviors.

Conceivably, one of the primary implications for clinical training involves the use of a recently validated measure of therapist attachment developed for a psychotherapy context in the study of therapist trainees’ effect and the relationship to client outcome. To my knowledge, this current study was one of first to utilize the TASc instrument on a sample of therapist trainees in the United States. Equipped with this innovative instrument, attachment researchers may more accurately track therapist attachment differences as reflected in how they establish trust in the relevance of what they communicate to their clients. These innovations may then further guide assessment as well as the training of therapeutic interventions of therapist trainees. Knowledge of in-session attachment markers can assist trainees (and their supervisors) to revise in-session discourse, aiming to make use of three characteristic types of interventions. Secure or Balanced therapists (a) offer their own views on a client’s experience that is open to correction and elaboration from the client (i.e., Self-State Conjecture), (b) validate a client’s previously expressed experience by offering their own subjective view (i.e., Empathic Validation), and (c) convey their subjective experience of the client (i.e., Joining). Equipped with a more nuanced attachment measure, future researchers have the potential to contribute to our understanding of enhanced attunement to clients by examining processes through which therapists communicate in therapy.

Conclusion

The purpose of this present study sought to extend understanding of what therapist attachment-related characteristics are attributable to the variation in client psychotherapy process and outcome. In order to gain a deeper understanding of the variation in therapeutic outcomes
between clients, contemporary attachment researchers have recently turned their attention to the personal characteristics of the psychotherapists (Castonguay & Hill, 2017). Recent studies have revealed that the effects of some therapists may predict better therapy outcomes for their clients. Therefore, the pressing task of this study was to understand in greater degree what characteristics of therapists explain the differences in therapy outcome. Thus, the primary takeaway from this study is how using a new instrument that measures therapist attachment may enable researchers and clinicians to focus our training to assist therapist trainees to be more attuned to and work toward providing more security in their clients. Insofar as therapist qualities may be cultivated and modifiable, training programs and supervision could be geared toward further developing and honing such skills.
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Appendix A

The Reflective Functioning Questionnaire
The Reflective Functioning Questionnaire

Please work through the next 8 statements. For each statement, choose a number between 1 and 7 to say how much you disagree or agree with the statement, and write it beside the statement. Do not think too much about it – your initial responses are usually the best. Thank you.

Use the following scale from 1 to 7:

| Strongly | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly |

1__ People’s thoughts are a mystery to me (original item 1)

2. __ I don’t always know why I do what I do (original item 17)

3__ When I get angry I say things without really knowing why I am saying them (original item 22)

4__ When I get angry I say things that I later regret (original item 29)

5__ If I feel insecure I can behave in ways that put others’ backs up (original item 35)

6__ Sometimes I do things without really knowing why (original item 36)

7__ I always know what I feel (original item 8)

8. __ Strong feelings often cloud my thinking (original item 27)
Appendix B

Therapist Attunement Scales
Therapist Attunement Scales

Example of one marker

Transcript Example

**Self-stated based on an external fact (Objective)**

The therapist offers a validation of the patient's remarks regarding the patient's distressful feelings and/or unmet needs in the current interpersonal intention.

**Decision (Expression)**

The therapist affirms a patient's reflection.

**Joining**

The therapist acknowledges the impact that the patient has on him.

**Detaching**

The therapist minimizes the affect implicit in the patient's disclosures (Clarification).

**Empathic Validation**

The therapist shares a confirmatory perception of the patient's internal state (Objective).

**Self-Stated Conjecture**

The therapist makes a conjecture about a current interpersonal interaction.

**Emotional Reactions**

The therapist makes a conjecture about a current interpersonal interaction.

---

This is an excerpt from an unpublished manual to be used only in conjunction with training by the authors or by others whom the authors have trained.
The therapist offers their insight on the internal states of another person not presenting it as their personal view.

T: So you were thinking, "I'm here and I don't know when to do..."

T: Your teacher is just trying to help you apparently.
Appendix C

Outcome Questionnaire 45.2
Outcome Questionnaire 45.2

<table>
<thead>
<tr>
<th>Outcome Questionnaire (OQ²-45.2)</th>
<th>Name: ___________________________</th>
<th>Date: ___________________________</th>
<th>Almost</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Never</td>
<td>Rarely</td>
</tr>
<tr>
<td>1. I get along well with others.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>2. I tire quickly.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>3. I feel no interest in things.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>4. I feel stressed at work/school.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>5. I blame myself for things.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>6. I feel iritated.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>7. I feel unhappy in my marriage/significant relationship.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>8. I have thoughts of ending my life.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>9. I feel weak.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>10. I feel fearful.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>11. After heavy drinking, I need a drink the next morning to get going. (If you do not drink, mark “never”)</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>12. I find my work/school satisfying.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>13. I am a happy person.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>14. I work/study too much.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>15. I feel worthless.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>16. I am concerned about family troubles.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>17. I have an unfailing sex life.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>18. I feel lonely.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>19. I have frequent arguments.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>20. I feel loved and wanted.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>21. I enjoy my spare time.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>22. I have difficulty concentrating.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>23. I feel hopeless about the future.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>24. I like myself.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>25. Disturbing thoughts come into my mind that I cannot get rid of.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>26. I feel annoyed by people who criticize my drinking (or drug use). If not applicable, mark “never”</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>27. I have an upset stomach.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>28. I am not working/studying as well as I used to.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>29. My heart pounds too much.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>30. I have trouble getting along with friends and close acquaintances.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>31. I am satisfied with my life.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>32. I have trouble at work/school because of drinking or drug use. If not applicable, mark “never”</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>33. I feel that something bad is going to happen.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>34. I have sore muscles.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>35. I feel afraid of open spaces, of driving, or being on buses, subways, and so forth.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>36. I feel nervous.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>37. I feel my love relationships are full and complete.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>38. I feel that I am not doing well at work/school.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>39. I have too many disagreements at work/school.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>40. I feel something is wrong with my mind.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>41. I have trouble falling asleep or staying asleep.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>42. I feel blue.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>43. I am satisfied with my relationships with others.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>44. I feel angry enough at work/school to do something I might regret.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>45. I have headaches.</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>
Appendix D

Working Alliance Inventory – Short Revised (WAI-SR)
Working Alliance Inventory – Short Revised (Hatcher & Gillaspy, 2004)

*For Adult Clients Only:* Below is a list of statements and questions about experiences people might have with their therapy or therapist. Some items refer directly to your therapist with an underlined space – as you read the sentences, mentally insert the name of your therapist in place of ______________ in the text. Think about your experience in therapy, and decide which category best describes your own experience. IMPORTANT!! Please take your time to consider each question carefully.

<table>
<thead>
<tr>
<th>Seldom</th>
<th>Sometimes</th>
<th>Fairly Often</th>
<th>Very Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

_____ 1.  As a result of these sessions I am clearer as to how I might be able to change.
_____ 2.  What I am doing I therapy gives me new ways of looking at my problem.
_____ 3.  I believe __________ likes me.
_____ 4.  __________ and I collaborate on setting goals for my therapy.
_____ 5.  __________ and I respect each other.
_____ 6.  __________ and I are working towards mutually agreed upon goals.
_____ 7.  I feel that __________ appreciates me.
_____ 8.  __________ and I agree on what is important for me to work on.
_____ 9.  I feel __________ cares about me even when I do things that he/she does not approve of.
_____ 10. I feel that the things I do in therapy will help me to accomplish the changes I want to make.
_____ 11. __________ and I have established a good understanding of the kind of changes that would be good for me.
_____ 12. I believe the way we are working with my problem is correct.
Appendix E

Demographic Questionnaire
Demographic Questionnaire

Name: _____________________________________________________________

Gender: __________________________  Age: ______________

Your Racial/Ethnic Group:
- ☐ Caucasian
- ☐ Asian/Pacific Islander
- ☐ African American
- ☐ American Indian/Alaska Native

- ☐ Hispanic/Latino(a)
- ☐ Multiracial
- ☐ Other (please specify): __________________________

Your Current Relationship Status:
- ☐ Single, never married
- ☐ Remarried
- ☐ Separated
- ☐ Married

- ☐ Widowed
- ☐ Divorced
- ☐ Partnered
- ☐ Other (please specify): __________________________

Year in Program:
- ☐ 1st
- ☐ 2nd
- ☐ 3rd
- ☐ 4th
- ☐ 5th or higher

Previous Personal Counseling:
- ☐ Yes
- ☐ No

Prior Counseling Work Experience?
- ☐ Yes, # of months ____________
- ☐ No

Hours of Supervision Received: __________________________

Program Type:
- ☐ Clinical Mental Health Counseling
- ☐ Counseling Psychology M.A.
- ☐ Counseling Psychology Ph.D.
- ☐ Marriage, Couple & Family Counseling
- ☐ School Counseling
- ☐ Rehabilitation Counseling
- ☐ College Counseling

Theoretical Orientation:
- ☐ Humanistic
- ☐ Person-Centered
- ☐ Cognitive-Behavioral
- ☐ Psychodynamic
- ☐ Integrative
Appendix F

Human Subjects Institutional Review Board Approval Letter
Date: March 30, 2020

To: Eric Sauer, Principal Investigator  
Char Houben, Student Investigator for dissertation  
Student Investigators: Jon Hook, Kristin Roberts, Katy Sandison, Lexi Tabor

From: Amy Naugle, Ph.D., Chair Re: IRB Project Number 20-03-22

This letter will serve as confirmation that your research project titled “Examining the Relationship Between Therapists' Attachment-Related Differences and Psychotherapy Outcome” has been approved under the expedited category of review by the Western Michigan University Institutional Review Board (IRB). The conditions and duration of this approval are specified in the policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes to this project (e.g., add an investigator, increase number of subjects beyond the number stated in your application, etc.). Failure to obtain approval for changes will result in a protocol deviation.

In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the IRB for consultation.

The Board wishes you success in the pursuit of your research goals.

A status report is required on or prior to (no more than 30 days) March 29, 2021 and each year thereafter until closing of the study.

When this study closes, submit the required Final Report found at https://wmich.edu/research/forms.

Note: All research data must be kept in a secure location on the WMU campus for at least three (3) years after the study closes.
Appendix G

Recruitment Script
Recruitment Script

We are conducting a study in CCPS-GR this semester. This study aims to learn more about how therapist attunement is associated with working alliance and client outcome. Please review this invitation carefully and decide whether or not you would like to participate in the study. If you are willing to participate, please sign both copies of the consent document and return one to the envelope that will be left in the CCPS-GR workroom. If you prefer not to participate, you may return both unsigned copies to the envelope. Should you agree to participate you will be asked to respond to a demographic questionnaire. Any questions or concerns?
Appendix H

Informed Consent Form
Principle Investigator: Eric Sauer, Ph.D.
Co-Investigators: Kenneth Rice, Ph.D., Alessandro Talia, Ph.D., Char M. Houben, M.A.,
Kristin Roberts, M.A., & Jon Hook, B.S.
Title: Examining the Relationship Between Therapists’ Attachment-Related Differences and
Psychotherapy Outcome

STUDY SUMMARY: This consent form is part of an informed consent process for a research
study and it will provide information that will help you decide whether you want to take part in
this study. Participation in this study is completely voluntary. The purpose of the research is to
learn more about how therapist attachment-related behaviors are associated with the therapeutic
relationship and treatment outcome. If you take part in this research study, you will be asked to
allow the researchers to access one of your therapy sessions per each client you see and to
complete two brief questionnaires. Your time in the study include the time to complete the two
brief questionnaires (approximately 10 to 15 minutes). Risk and costs to you for taking part in
the study are expected to be minimal to none, and potential benefits of taking part may be
advancing the scientific knowledge base. Your alternative to taking part in the research study is
not to take part in it.

You are invited to participate in this research project titled, “Examining the Relationship
Between Therapists’ Attachment-Related Differences and Psychotherapy Outcome.” The
following information in this consent form will provide more detail about the research study.
Please ask any questions if you need more clarification and to assist you in deciding if you wish
to participate in the research study. You are not giving up any of your legal rights by agreeing to
take part in this research or by signing this consent form. After all of your questions have been
answered and the consent document reviewed, if you decide to participate in this study, you will
be asked to sign this consent form.

What are we trying to find out in this study?
We will use recently validated, transcript-based scales to examine therapist attunement and a
short questionnaire to assess how therapist mentalization is associated with the working alliance
and client outcome. Please read this all the way through before agreeing to participate. You
are being invited to participate in this study because you are a counselor-in-training at the Center
for Counseling and Psychological Services – Grand Rapids.

Who can participate in this study?
Students completing clinical training at the CCPS-GR are eligible to participate in this study.

Where will this study take place?
The study will take place in the Center for Counseling and Psychological Services – Grand
Rapids.
What is the time commitment for participating in this study?
Participation will require the time to complete two questionnaires (i.e., approximately 10 to 15 minutes).

What will you be asked to do if you choose to participate in this study?
If you decide to participate, you will be granting the study investigators permission to access one of your therapy session recordings for each client you see in order to transcribe and code the session. You will also be asked to fill out two questionnaires, a demographic form and a brief questionnaire about how you interact with a client.

What information is being measured during the study?
Therapist attunement, therapist mentalization, the working alliance, and client distress levels will be measured.

What are the risks of participating in this study and how will these risks be minimized?
There are no known risks beyond what you standardly encounter as a counselor-in-training. Your transcript will not be shared with anyone beyond the principal investigator and co-investigators of this study. Your transcript will be de-identified and assigned an ID number so that it cannot be linked to you in any way.

What are the benefits of participating in this study?
You may or may not benefit from participation in this study. The primary benefit of your participation is to help us add to the counseling literature and may serve to benefit future clients, students, and counselors by advancing clinical training, research, and practice. If you would like to learn about the results of this study once it is completed, please email Dr. Eric Sauer at eric.sauer@wmich.edu.

Are there any costs associated with participating in this study?
There are no costs associated with participation in this study.

Is there any compensation for participating in this study?
You may choose to receive a $5 Starbucks gift card or a 1-hour parking validation card for your participation in this study. You will be contacted by the principal or co-principal investigator via email to indicate your compensation preference.

Who will have access to the information collected during this study?
Your transcript is completely confidential. Your transcript will not be shared with anyone else in the clinic under any circumstances. At no time will any identifying information that may point to you be released in association with this study. An ID number will be assigned to your transcript and will not be associated with your name in any way. Any personal information or personal health information will not be included in the transcript. Findings will be summarized and reported in group form. Your privacy will be protected to the maximum extent allowable by law.
All data associated with this project will be accessible only to the principal investigator and co-investigators and will be password protected in an electronic format. After information that could identify you has been removed, de-identified information collected for this research may be used by or distributed to investigators for other research without obtaining additional informed consent from you.

What will happen to my information or biospecimens collected for this research after the study is over?
After information that could identify you has been removed, de-identified information collected for this research may be used by or distributed to investigators for other research without obtaining additional informed consent from you. Recordings are erased after completion of research purposes.

What if you want to stop participating in this study?
Your participation in this research project is completely voluntary. Should you choose not to participate, it will not impact your training experience in any way. Your participation in this project is separate from your clinic duties and no information will be shared with your supervisor. You have the right to drop out at any time without penalty.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Eric Sauer, at (616) 771-4171 or eric.sauer@wmich.edu. You may also contact the Chair, Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This consent document has been approved for use for one year by the Western Michigan University Institutional Review Board (WMU IRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Do not participate in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

Please Print Your Name

Participant’s signature ___________________________ Date ____________
Appendix I

Participant Informed Consent
Title: Therapist Attunement and Their Effects on Psychotherapy Process and Outcome

Principal Investigator: Eric Sauer, Ph.D.
Sponsor: Center for Counseling and Psychological Services - Grand Rapids

Purpose
Thank you for your interest in this study of how therapist attunement impacts the therapy relationship and treatment outcome. Little is known about how therapists use in-session, empathic communication with clients. We will use the recently validated, transcript-based Therapist Attunement Scales (TASc: Talia, Muzi, Lingiardi, & Taubner, 2018) to examine how therapist attunement is associated with working alliance and client outcome. Please read this all the way through before agreeing to participate. You are being invited to participate in this study because you are a therapist trainee at the Center for Counseling and Psychological Services. Participation will not require any time commitment from you.

Procedures
If you decide to participate, you will be granting the study investigators permission to access one of your therapy session recordings in order to transcribe and code the session. There is no compensation to therapists for participation.

Risks
No risk to you should occur. Your transcript will not be shared with anyone beyond the principal investigator and co-investigators of this study. Your transcript will be de-identified and assigned an ID number so that it cannot be linked to you in any way.

Benefits
You may or may not benefit from participation in this study. The primary benefit of your participation is to help us add to the counseling literature and may serve to benefit future clients, students, and counselors by advancing clinical training, research, and practice. If you would like to learn about the results of this study once it is completed, please email Char Houben at char.m.houben-hop@wmich.edu

Voluntary Participation and Withdrawal
Your participation in this research project is completely voluntary. Should you choose not to participate, it will not impact your training experience in any way. Your participation in this project is separate from your clinic duties and no information will be shared with your supervisor. You have the right to drop out at any time without penalty.
Confidentiality
Your transcript is completely confidential. Your transcript will not be shared with anyone else in the clinic under any circumstances. At no time will any identifying information that may point to you be released in association with this study. An ID number will be assigned to your transcript and will not be associated with your name in any way. Any personal information or PHI will not be included in the transcript. Findings will be summarized and reported in group form. Your privacy will be protected to the maximum extent allowable by law. All data associated with this project will be accessible only to the principal investigator and co-investigators and will be password protected in an electronic format. After information that could identify you has been removed, de-identified information collected for this research may be used by or distributed to investigators for other research without obtaining additional informed consent from you.

Contact Persons
If you have any questions about this survey, you may contact Dr. Eric Sauer at email address eric.sauer@wmich.edu or office phone number (616) 771-4171. You may also contact the Chair, Human Subjects Institutional Review Board (616-387-8293) or the Vice President for Research (616-387-8298) at Western Michigan University if questions or problems arise during the course of the study.

Copy of Consent Form to Subject
You may keep a copy of this informed consent form. If you have read the contents of this form and are willing to volunteer for this research, please sign your name below.

This consent document has been approved for use for one year by the Western Michigan University Institutional Review Board (WMU IRB) as indicated by the stamped date and signature of the board chair in the upper right hand corner. Do not participate in this study if the stamped date is older than one year.

_________________________________________  ______________________
Signature                                      Date
Appendix J

Informed Consent for Recording, Observation, and Training
Informed Consent Form
(Recording, Observation and Training – CECP 6120, 6930, 6950 in Grand Rapids)

I hereby give my permission to have digital recordings made of our counseling sessions.

I hereby give my permission to have our counseling sessions observed by my counselor's supervisors and colleagues.

I understand, and permit, that the recordings, observations, and/or information pertaining to my counseling sessions may be shared with my counselor's supervisors and colleagues for the purpose of counselor training. Recordings will be digitally stored on a secure WMU online program. Recordings are erased after they are used for supervision.

*The use of information obtained in the above activities will be consistent with ethical and professional standards of the counseling profession safeguarding the confidentiality of such information.

____________________________________________________
Please Print Your Name Legibly

___________________________________________
Client Signature                                                                                         Date

____________________________________________________           ____________________
Parent or Guardian Signature (if client is under 18)                                  Date

____________________________________________________           ____________________
Counselor Signature                                                                  Date

____________________________________________________           ____________________
Supervisor Signature                                                                                 Date


Appendix K

Statement of Professional Intent
Welcome to the Center for Counseling and Psychological Services (CCPS). As a possible client, it is important that you know about the CCPS practices and procedures. First, whatever you share with the CCPS counseling staff is considered confidential. The CCPS staff will break confidentiality only when we have a duty to warn. Duty to warn means that potential harm to self or others seems likely to occur. In such an instance, we are obliged to act. In most cases, you as a client will be the first to know. Duty-to-warn situations occur very rarely.

Most individuals experience counseling as positive and find their sessions to be helpful in resolving problems. Occasionally, however, discussions about problems may cause negative feelings. If this occurs, please tell your counselor as soon as you can. Discussion of negative feelings is important in evaluating our work with you.

The CCPS counselors are advanced master's and doctoral degree students studying to be professional counselors and psychologists. They work under the direct supervision of a faculty member who is responsible for their training. Supervising faculty are professional counselors and/or licensed psychologists. For the purpose of being supervised, the students may have to digitally record some or all of their counseling sessions. Therefore, the CCPS can accept you for its services only if you sign a release that permits the recording of your sessions.

To insure proper service, the first visit here is considered to be an intake interview. During this interview, you are expected to tell why you came to the CCPS and what you would like to gain. Based on your needs, a student counselor will be assigned to you and a second appointment made. If we cannot respond to your needs, we refer you to another community provider.

The CCPS also serves as a site for developing a better understanding of counseling through research. Research in the CCPS is designed so that information is treated confidentially. Code numbers rather than names are used confidentially, and reports offer information only in the form of group data. Your signature on the specific release indicates your willingness to allow staff members to obtain information on file for the purpose of research.

In order to gain a better understanding of the long term impact of counseling, we would like to email surveys to you at various times after you have completed your services here.

Finally, to maintain a high level of service to clients, the CCPS must charge fees. The intake counselor will discuss the amount of your fee with you during the first interview. Thereafter, your counselor will collect the fee at the end of each session. You may pay with cash or a check made out to WMU.

We encourage discussion and questions about any aspect of your service at the CCPS. If you have problems with the service you receive that you do not want to discuss with your counselor, please contact the CCPS director at 616-771-4171.

I have read and understand this statement and have had the chance to discuss it before sharing personal information.

Signature and Date
Appendix L

Mathematical Notations
Mathematical Notations

Unconditional Means Model

\( OQ_{ti} = \gamma_{00} + u_{0i} + \varepsilon_{ti} \)

\( OQ_{ti}/WAI_{ti} \) refers to the OQ-45.2/WAI score for client \( i \) over repeated responses in the longitudinal design (\( t \)).

\( t \) reflects repeated observations from \( i \) clients over time (i.e., sessions)

\( \gamma_{00} \) refers to the grand mean OQ-45.2/WAI for all clients

\( u_{0i} \) refers to deviations in an individual client’s OQ-45.2/WAI score around the grand mean of OQ-45.2/WAI scores (i.e., random intercept)

\( \varepsilon_{ti} \) refers to the error term and is the residual variance in OQ-45.2/WAI scores

Unconditional Growth Model

\( OQ_{ti} = \gamma_{00} + u_{0i} + (\gamma_{10})(TIME_{ti}) + \varepsilon_{ti} \)

\( OQ_{ti}/WAI_{ti} \) refers to the OQ-45.2/WAI score for client \( i \) over repeated responses in the longitudinal design (\( t \))

\( t \) reflects repeated observations from \( i \) clients over time (i.e., sessions)

\( \gamma_{00} \) refers to the parameter and the predicted first session when Time = 0

\( u_{0i} \) refers to deviations in an individual client’s OQ-45.2/WAI score around the grand mean of OQ-45.2/WAI scores (i.e., random intercept)

\( (\gamma_{10})(TIME_{ti}) \) refers to the fixed linear time slope or the predicted rate of symptom/working alliance change for each session of therapy

\( \varepsilon_{ti} \) refers to the error term and is the residual variance in OQ-45.2/WAI scores

Conditional Growth Model

\( OQ_{ti}/WAI_{ti} \) refers to the OQ-45.2/WAI score for client \( i \) over repeated responses in the longitudinal design (\( t \))

\( t \) reflects repeated observations from \( i \) clients over time (i.e., sessions)

\( \gamma_{00} \) refers to the parameter and the predicted first session when Time = 0
\( u_{0i} \) refers to deviations in an individual client’s OQ-45.2/WAI score around the grand mean of OQ-45.2/WAI scores (i.e., random intercept)

\( (\gamma_{10})(\text{TIME}_{ii}) \) refers to the fixed linear time slope or the predicted rate of symptom/working alliance change for each session of therapy

\( (\gamma_{20})(\text{TIME}^2_{ii}) \)

\( (\gamma_{30})(\text{TIME}^3_{ii}) \)

\( (\gamma_{01})(\text{BAL}_{i}) \) refers to therapist attachment (Balance, Coercing & Detaching) as a Level 2 predictor of the intercept or OQ-45.2/WAI score at the first session of psychotherapy treatment with the therapist.

\( \varepsilon_{ij} \) refers to the error term and is the residual variance in OQ-45.2/WAI scores