ABSTRACT

Title of Thesis:	CHANGING ATTACHMENTS: THE CLIENT-THERAPIST RELATIONSHIP AND OUTCOME
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From the perspective of attachment theory (Bowlby, 1988), this study examined if client attachment to therapist developed over the course of psychotherapy and if changes in attachment to therapist were associated with treatment outcomes. Clients ($N = 112$), receiving psychodynamic therapy from trainee therapists ($N = 29$), completed the Client Attachment to Therapist Scale (Mallinckrodt, Gantt, & Coble, 1995) and the Outcome Questionnaire-45 (Lambert et al., 1996) at baseline and every eighth session. Multilevel linear growth curve analyses showed that secure attachment to therapist increased and avoidant-fearful attachment to therapist decreased. Multilevel linear regression showed that when within-client secure attachment to therapist was higher, subsequent symptoms improved more. Client-level and therapist-level effects were explored. Results suggest that the development

of a secure attachment to therapist is important for positive treatment outcomes. Implications for practice and research are discussed.

CHANGING ATTACHMENTS: THE CLIENT-THERAPIST RELATIONSHIP
AND OUTCOME

by

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Chapter I. Changing Attachments: The Client-Therapist Relationship and Outcome

John Bowlby's (1982/1969, 1988) attachment theory provides a useful framework for understanding both the therapeutic relationship and the process of change in psychotherapy. Bowlby's (1982/1969, 1988) psychobiological theory of attachment posited that the quality of attachment relationships with primary caregivers in childhood leads to an individual's development of internal working models (IWMs) of self and others. If a primary caregiver does not provide security, safety, and is unresponsive to the child's needs, this may lead to the development of maladaptive IWMs that manifest as insecure attachment patterns and may contribute to difficulties in relationships and psychopathology throughout the lifespan.

Adult Attachment in Psychotherapy

Adult attachment style is understood in terms of levels of anxiety and avoidance, where individuals with a secure attachment style are low on both anxiety and avoidance (Brennan, Clark, & Shaver, 1998; Fraley & Waller, 1998). According to Mikulincer and Shaver's (2016) model of adult attachment dynamics, secure individuals use security-based strategies in relationships and are thus able to seek support from others when in need and regulate their emotions effectively. Whereas, individuals who have high attachment anxiety are vigilant to signs of abandonment, overly reliant on others, and prone to use hyperactivating strategies by heightening their expression of affect in an attempt to have their needs met. Conversely, individuals with high attachment avoidance tend to use deactivating strategies characterized by minimization of their need for support and avoidance of closeness with others. Although these secondary attachment strategies that characterize

attachment insecurity form as adaptations to early caregiving relationships, they can become maladaptive in adulthood.

A growing body of research has investigated the role of attachment style in the process and outcome of psychotherapy (Bernecker, Levy, & Ellison, 2014; Diener & Monroe, 2011; Levy, Ellison, Scott, & Bernecker, 2011). For example, a meta-analysis of 19 therapy cohorts (N = 1,467; Levy et al., 2011), found that clients with higher levels of attachment anxiety had worse outcomes ($d = -.46$) and clients with higher levels of attachment security had better outcomes ($d = -.37$). While insecure attachment styles are not inherently psychopathological, there is evidence that individuals with psychiatric diagnoses tend to have more insecure attachment than individuals without psychiatric diagnoses (van Ijzendoorn & Bakermans-Kranenberg, 2008). This literature largely demonstrates the benefits of a secure attachment style and highlights the need for clinicians to understand and adapt treatment to clients' attachment insecurity (Levy et al., 2011).

The Therapeutic Relationship as an Attachment Relationship

Bowlby (1988) further theorized that the therapeutic relationship serves as an attachment relationship. This notion has received increasing attention in recent years (e.g., Farber, Lippert, & Nevas, 1995; Farber & Metzger, 2009; Obegi, 2008; Mallinckrodt, 2010). To assess the attachment aspects of the therapeutic relationship, Mallinckrodt, Gantt, and Coble (1995) developed the Client Attachment to Therapist Scale (CATS), which contains three dimensions: the (a) *Secure* scale captures the degree to which clients perceive their therapists as warm, responsive, and emotionally available; the (b) *Avoidant-Fearful* scale captures the degree to which clients fear

being rejected by their therapists, view their therapists as disapproving and judgmental, and are reluctant to disclose in therapy; and the (c) *Preoccupied-Merger* scale (which is based on characteristics of anxious attachment) captures the degree to which clients long to be closer to their therapists, wish to be their therapists favorite client, and want a relationship with their therapists outside the boundaries of the therapy.

A client's attachment to their therapist is different from their trait-like attachment style in that it is relationship-specific. Indeed, several studies find only small correlations between measures of clients' attachment style and clients' attachment to the therapist (Janzen, Fitzpatrick, & Drapeau; Mallinckrodt, Gant, & Coble, 1995; Mallinckrodt, Porter, & Kivlighan, 2005; Romano, Fitzpatrick, & Janzen, 2008; Sauer et al., 2010; Wiseman & Tishby, 2014). Additionally, evidence indicates that the attachments clients form to their therapist is associated with both client (Mallinckrodt & Jeong, 2015) and therapist attachment style (Petrowski, Pokorny, Nowacki, & Buchheim, 2013), such that insecure attachment style of the client *or* therapist predicts insecure attachment to therapist. In this sense, attachment to therapist can be thought of as state-like, and unique to the therapeutic dyad.

The task of psychotherapy according to Bowlby (1988) is to provide a sufficiently *secure base* for clients to explore their distressing concerns, including their insecure IWMs, ultimately leading to the development of more adaptive IWMs. Bowlby (1988) hypothesized that a *secure base* is pre-requisite for the client to explore their painful affects and memories. Research using the CATS has confirmed Bowlby's secure base hypothesis in that clients who reported a more secure

attachment to the therapist also reported deeper exploration during sessions (Janzen, Fitzpatrick, & Drapeau, 2008; Mallinckrodt et al., 2005; Romano, Fitzpatrick, & Janzen, 2008). Attachment to the therapist has also been linked to other important processes in therapy. For example, Woodhouse, Schlosser, Crook, Ligiéro, & Gelso (2003) found that clients with more secure attachment to their therapist exhibit more negative transference in sessions, because they were able to explore their negative IWMs more freely. Saypol and Farber (2010) found that more secure attachment to the therapist was related to an increase in client's positive feelings after client self-disclosure. Another study found that secure attachment to the therapist was negatively associated with client resistance (Yotsidi, Stalikas, Pezirkianidis, & Pouloudi, 2018b). Together, these findings suggest that clients with a secure attachment to their therapist are more comfortable engaging in therapy, whereas clients with insecure attachments to their therapist may have difficulties engaging in therapy. Thus, it is imperative that therapists be able to foster a secure relationship with their clients.

Building on Bowlby's attachment theory of psychotherapy, researchers and clinicians have developed models of therapy that focus on how the developing attachment relationship to the therapist leads to therapeutic change (e.g., Daly & Mallinckrodt, 2009; Dozier & Tyrrell, 1998; Lilliengren, 2014; Mallinckrodt, 2010; Obegi, 2008). Mallinckrodt's (2010; Daly & Mallinckrodt, 2009) approach involves providing a therapeutic relationship that is complementary to the client's attachment style at first, and then adjusting this relationship over time. For clients with high attachment avoidance who are typically uncomfortable with closeness and tend to down-regulate their emotions, the therapist initially meets their need for distance.

Then, the therapist gradually decreases therapeutic distance and encourages the avoidant client to rely less on deactivating strategies, and instead, to open-up and lean on the therapist for emotional support. For clients with high attachment anxiety who tend to exaggerate their distress to ensure support from others, the therapist initially meets their need for closeness. As treatment progresses, the therapist gradually increases therapeutic distance in order to encourage the client to rely less on hyperactivating strategies, and to regulate their emotions more autonomously. Mallinckrodt (2010) states that this fluid, shifting attachment relationship sets the stage for a corrective emotional experience for insecure clients, and moves them towards increased attachment security and improved social and emotional functioning.

Similarly, Lilliengren (2014) adapted Mikulincer and Shaver's (2016) model of attachment-system dynamics to explain how secure attachment strategies are developed and encouraged in the therapeutic relationship. Lilliengren's (2014) *broaden-and-build cycle of attachment security development and change* in psychotherapy involves a cycle in which the client opens up in session, experiences a corrective emotional experience through receiving the therapist's support, and then shifts toward a more secure attachment with the therapist, which in turn leads to reduced distress and interpersonal problems. As security grows in the therapeutic relationship, this positive cycle encourages the client to continue using security-based strategies, both in and outside sessions, leading to continued improvements. Conversely, if the client employs insecure attachment strategies, and the therapist struggles to manage their own countertransference, a negative cycle can occur that

maintains the client's reliance on insecure attachment strategies. These contemporary theoretical approaches to attachment informed psychotherapy go beyond the provision of a secure base and suggest that the way in which the attachment to the therapist develops has an impact on psychotherapy outcomes.

Client Attachment to Therapist and Psychotherapy Outcome

Researchers have only recently begun to examine the relationship between client attachment to therapist and outcome. This research has demonstrated that clients who establish a secure attachment relationship with their therapist have better outcomes than those who have an insecure relationship. For example, a meta-analysis of the small body of literature examining attachment to the therapist with the CATS and psychotherapy outcomes (Mallinckrodt et al., 2017) found small, but significant weighted mean effect sizes for Secure (r=.27), Avoidant-Fearful (r = -.30), and Preoccupied-Merger (r = -.19). They also found evidence that clients with an avoidant attachment style who developed secure attachment to their therapist improved more on a measure of interpersonal problems, which supports the idea that a secure attachment to therapist can lead to improvements in symptoms for clients with an insecure attachment style. Additionally, there is evidence that clients' secure attachment style increases and insecure attachment style decreases in psychotherapy (Taylor, Rietzschel, Danquah, & Berry, 2015), which supports Bowlby's (1988) theory that IWMs can be revised. Lilliengren et al. (2015) measured attachment to the therapist with observer ratings on the Patient Attachment to Therapist Rating Scale (PAT-RS; Lilliengren et al., 2014) and found that secure attachment to the therapist at termination predicted improvements in symptoms, global functioning, interpersonal

problems, and post-treatment improvements. Taken together, this research implies that the development of a secure attachment to therapist contributes to positive therapy outcomes, possibly through the revision of IWMs and increases in attachment security.

Statement of the Problem

What is missing in the literature is a link between the development of client attachment to the therapist longitudinally and psychotherapy outcomes. Unfortunately, most studies of client attachment to therapist and outcome (e.g., Lilliengren et al., 2015; Petrowski et al., 2013; Sauer et al., 2010; Woodhouse et al., 2003) have only examined client attachment to therapist at single time points. Therefore, the research cannot speak to how attachment to the therapist develops, the relationship between changes in attachment to therapist and outcome, or the temporal precedence of symptom change and changes in client attachment to therapist. Issues of causality due to single measurements have posed similar issues in the study of the working alliance (WA) and outcome (DeRubeis, Brotman & Gibbons, 2005; Barber, 2009). The WA, defined as the client and therapist's bond, and their agreement on the tasks and goals of therapy (Bordin, 1979), has a consistent, small to moderate, positive relationship with therapy outcomes (Flückiger, Del Re, Wampold, & Horvath, 2018). Without repeated measures, longitudinal studies, it was unclear whether early improvements in symptoms led to increases in the WA or the other way around (Barber, 2009). The use of sophisticated statistical methods has clarified the relationship between WA and outcome, indicating that a reciprocal relationship between WA and symptom change explains the correlation (Xu & Tracey, 2015).

These methodological issues have not yet been addressed in the study of client attachment to therapist.

Four studies were found that used repeated measures of client attachment to therapist (Janzen, Fitzpatrick & Drapeau, 2008; Mallinckrodt et al., 2015; Wiseman & Tishby, 2014; Yotsidi et al., 2018b), but only one of these studies (Janzen et al., 2008) investigated how client attachment to therapist changed over time. Janzen et al. (2008) examined changes in client attachment to therapist as an outcome and found that client's secure attachment to their therapist was significantly higher after sessions in which clients identified relationship-building incidents. Although this finding supports the notion that client attachment to therapist develops over the course of therapy, whether changes in client attachment to therapist are related to subsequent improvements in symptoms has yet to be tested. Furthermore, Janzen at al. only examined the development of security over the first four sessions of therapy. The development of an attachment bond to the therapist may in fact take considerable time to develop and may only occur later in therapy. However, in Bowlby's (1988) view, the development of some security with the therapist is necessary for therapy to even begin. Thus, it is reasonable to expect that changes in secure or insecure attachment to therapist in the earlier phases of therapy would have an important relationship to therapy outcomes, and that the development of secure (or insecure) attachment to therapist would precede improvements in symptoms.

Aims/Hypotheses

The aim of the present study was to investigate, first, if client attachment to therapist changes over the course of therapy, and, second, if such changes influence

psychotherapy outcomes (i.e., symptom levels). To answer these questions, we examined client attachment to therapist using the CATS, and psychological symptom levels across 3 time points (T1 = Intake, T2 = Session 8, T3 = Session 16) over the course of 16 sessions of psychodynamic psychotherapy. A series of hypotheses were made for each subscale of the CATS and their relationships to subsequent symptoms levels.

Hypotheses 1

The first set of hypotheses predicted the relationship between client attachment to therapist at T1 and symptom levels at T2, controlling for prior symptom levels. Given Bowlby's (1988) secure base hypothesis and the evidence that a secure attachment to therapist is associated with better outcomes and insecure client attachment to therapist with poorer outcomes (e.g., Mallinckrodt et al., 2017), I hypothesized that (a) the level of secure client attachment to therapist at T1 would be negatively associated with symptom levels at T2, controlling for prior symptoms, such that the greater secure attachment to therapist, the lower subsequent symptoms will be; (b) the level of avoidant-fearful client attachment to therapist at T1 would be positively associated with symptom levels at T2, controlling for prior symptoms, such that the greater avoidant-fearful attachment to therapist, the greater subsequent symptoms would be; and (c) the level of preoccupied-merger client attachment to therapist at T1 would be positively associated with symptom levels at T2, controlling for prior symptoms, such that the greater preoccupied-merger attachment to therapist, the greater subsequent symptoms will be.

Hypotheses 2

The second set of hypotheses predicted the relationship between changes in client attachment to therapist from T1 to T2 and symptom levels at T3, controlling for prior change in symptoms. These hypotheses are of most interest in the present study because they address the temporal precedence of the effect of change in client attachment to therapist on later improvements in symptoms. Given the evidence that secure client attachment to therapist develops over time (Janzen et al., 2008) and is associated with enhanced outcomes (Mallinckrodt et al., 2017), and that insecure client attachment to therapist is associated with poorer outcomes (Mallinckrodt et al., 2017), I hypothesized that (a) change in secure client attachment to therapist from T1 to T2 would be negatively associated with symptoms at T3, controlling for prior change in distress, such that the greater the increase in security, the greater the decrease in subsequent symptoms; (b) change in avoidant-fearful attachment to therapist from T1 to T2 would be positively associated with symptoms at T3, controlling for prior change in distress, such that the greater the decrease in avoidant-fearful attachment to therapist, the greater the decrease in subsequent symptoms: and (c) change in preoccupied-merger attachment to therapist from T1 to T2 would be positively associated with symptoms at T3, controlling for prior change in distress, such that the greater the decrease in preoccupied-merger attachment to therapist, the greater the decrease in subsequent symptoms.

Methods

Design

The proposed study used a cross-lagged panel design with multilevel longitudinal data. The independent variable was client attachment to the therapist as measured by the Client Attachment to Therapist Scale (CATS; Mallinckrodt et al., 1995). The CATS is comprised of three subscales: Secure, Avoidant-Fearful, and Preoccupied-Merger. The outcome variable was psychological distress (i.e., symptoms) as measured by the Outcome Questionnaire 45 (OQ-45; Lambert et al., 1996).

To test the specific hypotheses in the proposed study, Random Intercept-Cross Lagged Panel Models (RI-CLPM; Hamaker, Kuiper & Grasman, 2015) were necessary. Separate RI-CLPM's and model comparison were attempted for each CATS subscale predicting symptom levels. Unfortunately, these analyses would not converge. The RI-CLPM design would have been able to test the relationship between initial level of client attachment to therapist at T1 on psychological distress at T2, and to determine if change in client attachment to therapist from T1 to T2 was associated with symptom levels at T3. Importantly, RI-CLPM would have tested the temporal precedence between change in CATS and change in symptoms. That is, it would have shown if earlier change in CATS led to later change in psychological distress, thus providing better evidence for causal inference.

The RI-CLPMs failed to converge for a few apparent reasons. Although there was an adequate sample size to run a standard CLPM, the sample size was too small to model the random intercepts. Additionally, between-therapist variance in the

sample was too small to estimate adjusted standard errors, and account for the nesting of the data (i.e., time-points nested within-clients, nested within-therapists). Without modeling random intercepts, within- and between-client effects could not be properly disaggregated in the cross-lagged analyses, which is essential for accurately studying the within-person change processes of psychotherapy (Hamaker et al., 2015). Therefore, an alternative study design was necessary to adequately test the hypotheses.

An alternate study design. Alternatively, a hierarchical linear modeling (HLM) approach was chosen to approximate the proposed study as closely as possible. With the sample size available at the therapist level (N = 29), HLM was able to handle the nested data and disaggregate within- and between-client effects in order to adequately test the proposed hypotheses (Raudenbush, Bryk & Congdon, 2010). The HLM approach was able to retain the lagged data design and test the association between client attachment to therapist and subsequent symptom levels, however, temporal precedence could not be established with this method. With the HLM approach, the second set of hypotheses could be tested, but across *all* time periods in therapy rather than from intake to session 16. Thus, a data set including data from all reporting periods was used.

Modified hypotheses. The hypotheses were modified to reflect these changes and stated that: 1) increases in secure attachment to therapist would be associated with subsequent improvements in symptoms; 2) decreases in avoidant-fearful attachment to therapist would be associated with subsequent improvements in

symptoms; and 3) decreases in preoccupied-merger attachment to therapist would be associated with subsequent improvements in symptoms.

Participants

The data set included 661 eight-session time periods (5,288 sessions) of 112 clients and 29 therapists in a university training and research clinic that provided open-ended, individual psychodynamic psychotherapy to the community at a low cost in exchange for research participation.

Clients. Clients were 112 adult community clients (62 females, 48 males, 2 unknown; 67 White/European American, 26 Black/African American, 9 Latin American, 5 Asian American, 3 other/unknown, 2 Multiethnic), ages 18 to 69 ($M = $ 33.50, $SD = 11.50$). Number of sessions per client ranged from 8 to 152 ($M = 39.43$; $SD = 34.51$). Clients reported their presenting concerns at intake (could indicate more than one): relationship issues ($N = 86$), depression ($N = 52$), anxiety ($N = 45$), career ($N = 37$), grief and loss ($N = 31$), meaning in life ($N = 23$), and other ($N = 48$).

Therapists. Therapists were 29 (20 female, 9 male; 15 White/European American, 6 Asian American, 2 White/Hispanic, 2 Black/African American, 4 International [2 Indian, 1 Chinese, 1 Chilean]; age $M = 31.10$, $SD = 8.86$) trainees in at least the third year of a counseling psychology doctoral program, with a minimum of three prior clinical practicums. Therapists' caseloads ranged from 1 to 7 clients ($M = 3.86$, $SD = 1.71$). Therapists received training in psychodynamic, humanistic, behavioral, and multicultural orientations throughout their program, but had to agree to deliver psychodynamic therapy while at the clinic. On the Therapist Orientation Profile Scale – Revised (TOPS; Worthington & Dillon, 2003), which used a 10-point

scale (1 = *not at all,* 10 = *completely*), therapists identified themselves as primarily

psychoanalytic/psychodynamic (*M* = 7.90, *SD* = 1.00), then humanistic/existential (*M*

= 6.12, *SD* = 1.62), and then cognitive-behavioral (*M* = 4.29, *SD* = 1.59). All

therapists received weekly individual supervision and bi-weekly group supervision

from licensed psychologists who endorsed a psychodynamic and/or interpersonal

orientation.

Measures

Client Attachment to Therapist Scale (CATS; Mallinckrodt, Gantt, &

Coble, 1995). The CATS is a 36-item, client-rated instrument used to assess the

attachment aspects of clients' relationships to their therapist (See Table A1 for all

items). Factor analysis identified 36 items rated on a 6-point scale (1 = *strongly agree*

to 6 = *strongly disagree*), that loaded onto three subscales: *Secure* (14-items, e.g.,

"My counselor is a comforting presence to me when I am upset"), *Avoidant-Fearful*

(12 items, e.g., "Sometimes I'm afraid that if I don't please my counselor, s/he will

reject me")*,* and *Preoccupied-Merger* (10 items, e.g., "I wish my counselor could be

with me on a daily basis"). The Secure subscale assesses the degree to which the

client feels encouraged to explore distressing concerns with their therapist, and

perceives the therapist as comforting, emotionally available, responsive, and

sensitive. The Avoidant-Fearful subscale assesses if the client is reluctant to disclose

personal information, feels threatened or humiliated in session, and if they fear

disapproval or rejection from the therapist. The Preoccupied-Merger subscale

assesses if the client wishes to have a relationship with the therapist outside of the

therapeutic encounter, if they long to be "at one" with the therapist, and if they are

preoccupied with the therapist. Concurrent validity has been supported by evidence that the CATS correlates as expected with measures of adult attachment, the working alliance, and object relations deficits (Mallinckrodt et al., 1995). In the present study, internal consistency across reporting periods for the Secure subscale ranged .81 to .98 ($M = .88$, $SD = .05$), for the Avoidant-Fearful subscale ranged .79 to .97 ($M = .90$, $SD = .05$), and for the Preoccupied-Merger subscale ranged .73 to .94 ($M = .84$, $SD = .06$).

Outcome Questionnaire-45 (OQ-45; Lambert et al., 1996; Lambert, Gregersen, & Burlingame, 2004). The OQ-45 is a self-report measure of mental health functioning that assesses level of psychological distress (See Table A2 for all items). The measure is designed to be sensitive to changes in distress and symptomatology when administered repeatedly over short periods of time. The OQ-45 has been widely used in a variety of healthcare settings. Items on the OQ-45 are rated with a 5-point scale (0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *frequently*, 4 = *almost always*) and assess the frequency of symptoms experienced over the past week on three subscales: *Symptom Distress* (25 items, e.g., "I feel worthless"), *Interpersonal Relationships* (11 items, e.g., "I have frequent arguments"), and *Social Role* (9 items, e.g., "I feel that I am not doing well at work/school"). 36 of the items capture increasing symptoms (e.g., "I have thoughts of ending my life"), while 9 of the items capture decreasing symptoms (e.g., "I feel loved and wanted"). These 9 items are reverse scored to reduce the likelihood of response set bias over repeated measurement. A total, mean score of all 45 items can be used to measure cumulative psychological distress levels. Higher scores on OQ-45 items, subscales, and total OQ-

45 scores indicate higher psychological dysfunction. Concurrent validity has been well established for the OQ-45 with several criterion measures (Lambert et al., 1996). For the present study, OQ-45 total score was used. Internal consistency across all reporting periods for OQ-45 total scores ranged .67 to .98 ($M = .94$, $SD = .07$).

Procedures

All procedures for this study were approved by the University of Maryland-College Park Institutional Review Board.

Recruitment. Participants were clients at a low-cost clinic and research lab that offers open-ended, psychodynamic psychotherapy to adults in the community. The clinic has a well-established reputation among mental health providers in the community, and many clients are referred to the clinic by other providers or former clients. The clinic is also advertised on Psychology Today's online database, through the clinics own website, and other advertising in the community.

When individuals interested in receiving psychotherapy contacted the clinic via phone or e-mail, a therapist conducted an initial telephone screening. They informed potential clients of the research procedures and that therapy was delivered by advanced doctoral trainees under the supervision of licensed psychologists. They also assessed the appropriateness of potential clients for the clinic based on several criteria (18 or older, seeking open-ended psychodynamic psychotherapy, not concurrently in psychotherapy elsewhere, no obvious psychotic disorder, and if taking psychotropic had been taking the medication for at least 2 months and was stabilized under the care of psychiatrist). Individuals who did not meet these criteria were referred to an appropriate provider. Those who met the criteria were put on the

waitlist or offered the opportunity to schedule an intake appointment with a therapist, depending on availability. The therapist who performed the intake provided therapy for that client.

Informed Consent. At intake, clients were provided a consent form that described the nature of the research, the limits of confidentiality, and the procedures for screening, intake, measurement, and post-treatment interviews. Clients were informed that they could withdraw consent at any time should they no longer choose to participate.

Data Collection. All measures were completed via an online platform. To protect confidentiality, clients and therapists were assigned an ID number to de-identify the data. Clients completed the OQ-45 at intake to assess baseline symptoms. Clients completed the CATS for the first time at the 3rd session to allow time for the client-therapist relationship to be established before measuring it. Subsequently, the OQ-45 and CATS were completed after every 8th session (i.e., session 8, 16, 24, etc.). Clients with fewer than eight sessions did not have a CATS score that preceded an outcome score and were therefore excluded from the final sample.

Results

Preliminary Results

As shown in Table B1, the means and standard deviations for each CATS subscale were: Secure, $M = 5.27$ ($SD = .61$); Avoidant-Fearful, $M = 1.66$ ($SD = .70$); and preoccupied-merger, $M = 2.44$ ($SD = .83$). These means were comparable to those reported by Mallinckrodt et al. (1995) in a similar sample of 138 clients (121 female, 15 male, 2 unknown; 122 White/Caucasian, 12 Other, 2 Hispanic, 2 Native

American; ages 18 to 64 [M = 32.57, SD = 10.86]) receiving individual therapy:

Secure, M = 5.20 (SD = .72); Avoidant-Fearful, M = 1.79 (SD = .77); and

Preoccupied-Merger, M = 2.64 (SD = .87). The mean for OQ-45 total scores was

72.06 (SD = 25.33), which is higher than those in a normative community sample (M

= 48.16, SD = 18.23; N = 102 [46 male, 56 female]) and similar to those for clients in

individual therapy through an employee assistance program (M = 73.02, SD = 21.05;

N = 504 [198 male, 306 female]) and a university outpatient clinic (M = 78.01, SD =

25.71; N = 76 [23 male, 53 female]) as reported by Lambert et al. (1996). Session

Number (M = 31.90, SD = 31.85) was also included in the data set for growth curve

analyses and as a covariate, with the first reporting period coded as 0.

Pearson correlations among the variables are shown in Table B1 and reported

here using Cohen's (1988) descriptions of small, medium and large effect sizes for

correlations (small = .10 to .29, medium = .30 to .49, and large > .50). Correlations

less than .10 are described as "weak." Significance tests are not reported because the

nested data makes significance levels invalid. Secure and Avoidant-Fearful had a

large, negative correlation (r = -.73). Preoccupied-Merger and Avoidant-Fearful had a

small, positive correlation (r = .09). Secure and Preoccupied-Merger had a weak,

positive correlation (r = .06). OQ-45 scores had a medium, negative correlation with

Secure (r = -.32) and a medium, positive correlation with Avoidant-Fearful (r = .42).

OQ-45 scores and Preoccupied-Merger had no relationship (r = .01). Session Number

had a small, positive correlation with Secure (r = .17) and a small, negative

correlation with Preoccupied-Merger (r = -.12). As well, Session Number had a weak,

negative correlation with Avoidant-Fearful ($r = -.07$) and a weak, positive correlation with OQ-45 scores ($r = .02$).

The percentage of missing data was 13.6% for each CATS subscale and 8.5% for OQ-45. Pairwise-deletion was used when calculating descriptive statistics and correlations. Multiple imputation was used to handle missingness when running the multilevel models reported below.

Hierarchical Linear Models

A hierarchical linear modeling (HLM) approach was used to handle the nesting of the data, because time-periods were nested within-clients, and clients within-therapists. All multilevel models were fit using Hierarchical Linear Modeling 7 (HLM7; Raudenbush, Bryk & Congdon, 2010). In all models both fixed and random effects (i.e., variance components) were modeled, which yields a more generalizable estimate for fixed effects. Data cleaning, centering, and standardization was performed with SPSS version 25.

Linear growth curve analyses of CATS subscales. Growth curve analysis (GCA) was selected to answer the overarching research question: *does client attachment to therapist change over the course of psychodynamic psychotherapy?* Because clients in the sample had a minimum of two reporting periods, linear GCAs were utilized.

To aid interpretation and disaggregate within- and between-client variance, scores for each CATS subscale were first client-mean centered, and then grand standardized. Session Number was also grand standardized. Then, separate GCAs were fit for each CATS subscale, with Session Number entered as a predictor on the

time-level (level 1) and the CATS subscale entered as the outcome variable. The standardized coefficient for Session Number provided an estimate of within-client growth in the CATS subscales that can be interpreted as an effect size using Cohen's (1988) guidelines for correlations (small = .10 to .29, medium = .30 to .49, and large > .50). When reporting results below, this fixed effect for Session Number is referred to as the growth coefficient.

Because the strength of within-client fixed effects may vary between-clients and between-therapists, random effects (i.e., variance components) were modeled on the client-level (level 2) and therapist-level (level 3) of the analyses. Between-client and between-therapist variation in growth were controlled for by modeling these random effects on the upper levels, which provided a more generalizable estimate of the fixed effect for within-client growth in each CATS subscale.

The following model shows the GCA for CATS Secure as an example of the models fit for each CATS subscale:

Level 1 Model:

$$CATS\ Secure = \rho_0 + \rho_1 \times Session\ Number + e$$

Level 2 Model:

$$\rho_0 = \beta_{00} + r_0$$

$$\rho_1 = \beta_{10} + r_1$$

Level 3 Model:

$$\beta_{00} = \gamma_{000} + u_{00}$$

$$\beta_{10} = \gamma_{100} + u_{10}$$

CATS Secure growth curve analysis. As shown in Table B2, the intercept for Secure was not significant, $\gamma_{000} = 0.04$, $SE = 0.04$, $t(28) = 1.08$, $p = .290$, indicating that initial Secure scores were not significantly different from zero. The growth coefficient was a small, positive, significant effect, $\gamma_{100} = 0.25$, $SE = 0.05$, $t(28) = 1.08$, $p < .001$, indicating that within-client secure attachment to therapist increased over the course of therapy by .25 standard deviations each reporting period.

As shown in Table B3, the client-level variance component for the Secure intercept (0.00, $p = .035$) was significant, suggesting that initial Secure scores varied between-clients. The client-level variance component for the growth coefficient was also significant (0.08, $p < .001$), suggesting that secure attachment to therapist increased more for some clients than others. On the therapist-level, the variance component for the Secure intercept (0.00, $p = .009$) was significant, indicating that some therapist's clients reported a more secure attachment to that therapist at the beginning of treatment, compared to other therapists. The therapist-level variance component for the growth coefficient was also significant (0.00, $p < .003$), suggesting that growth in secure attachment to therapist varied between-therapists.

CATS Avoidant-Fearful growth curve analysis. As shown in Table B2, the intercept for Avoidant-Fearful was significant, $\gamma_{000} = -0.05$, $SE = 0.02$, $t(28) = -2.17$, $p = .038$, indicating that initial Avoidant-Fearful scores were significantly different than zero. The growth coefficient was a significant, negative, small effect, $\gamma_{100} = -0.21$, $SE = 0.04$, $t(28) = 5.40$, $p < .001$, indicating that within-client avoidant-fearful attachment to therapist decreased over the course of therapy by .21 standard deviations each reporting period.

As shown in Table B3, the client-level variance component for the intercept was not significant (0.00, $p > .500$), suggesting that initial Avoidant-Fearful scores did not vary between-clients. The client-level variance component for the growth coefficient was significant (0.06, $p < .001$), indicating that avoidant-fearful attachment to therapist decreased more for some clients than others. Therapist-level variance components were not significant for the intercept (0.00, $p = .380$) or the growth coefficient (0.01, $p = .081$), suggesting that both initial scores and growth in avoidant-fearful attachment to therapist did not vary between-therapists.

CATS Preoccupied-Merger growth curve analysis. As shown in table B2, the intercept for Preoccupied-Merger was not significant, $\gamma_{000} = 0.00$, $SE = 0.01$, $t(28) = -0.19$, $p = .851$, indicating that initial Preoccupied-Merger scores were not significantly different from zero. As well, the growth coefficient was not significant, $\gamma_{100} = -0.01$, $SE = 0.04$, $t(28) = -0.27$, $p = .787$, suggesting that preoccupied-merger attachment to therapist did not change as a function of time in therapy.

As shown in table B3, the client-level variance component for the intercept was not significant (0.02, $p > .500$), suggesting that initial Preoccupied-Merger scores did not vary between-clients. The client-level variance component for growth was significant (0.04, $p < .001$), indicating that the non-significant growth for Preoccupied-Merger varied between-clients. Therapist-level variance components were not significant for the intercept (0.00, $p > .500$) or the growth coefficient (0.01, $p = .158$), suggesting that initial scores and growth in preoccupied-merger attachment to therapist did not vary between-therapists.

CATS predicting subsequent OQ-45. To examine whether changes in client attachment to therapist were associated with subsequent symptoms, multilevel models were fit with CATS Secure, Avoidant-Fearful, and Preoccupied-Merger entered simultaneously as predictors of subsequent OQ-45 scores.

Before running the analysis, a new data set was created to reflect the temporal relationship between the CATS subscales and subsequent OQ-45 scores. To do this, OQ-45 scores were off-set so that CATS scores from one reporting period were matched to the OQ-45 score from the next reporting period. This retained the lagged OQ-45 of the originally proposed cross-lagged study. Then, the last reporting period for each client was deleted because a subsequent OQ-45 score did not exist for that period. The resultant data set had fewer time-periods (N = 549) than used for the previous analyses, but the same number of clients (N = 112) and therapists (N = 29).

Next, person-mean centering was used to partition variance into time-level and client-level components (Wang & Maxwell, 2015). Scores for each CATS subscale were centered by their respective client means for the time-level (level 1) and by their respective therapist means for the client-level (level 2). CATS subscale scores were grand-mean centered on the therapist-level (level 3). OQ-45 scores were client-mean centered to aid interpretation. After centering, all variables were grand standardized. The standardized coefficients can be interpreted as effect sizes using Cohen's (1988) guidelines for correlations (small = .10 to .29, medium = .30 to .49, and large > .50). Statistically significant effects that were smaller than .10 are described here as "weak."

It has been debated whether and when researchers should partial out the effect of time in their analyses (i.e., detrend). According to Wang and Maxwell (2015), the choice to detrend is a theoretical decision: when the effect of time is of interest to the researcher, detrending is not necessary. For the present study, models were fit both with and without a control for time (i.e., Session Number entered as a covariate), and then compared. In both analyses, the size of coefficients was similar. The results controlling for time in treatment are reported below, which is a more conservative model.

In the model shown below, Session Number was included as a covariate on the time-level to control for treatment length. Prior OQ-45 scores were not controlled for in the analysis because including a lagged dependent variable as a covariate in fixed and random effects models has been shown to introduce endogeneity issues that bias effect estimates (Falkenström, Finkel, Sandell, Rubel & Holmqvist, 2017). Random effects (i.e., variance components) were modeled for all time-level (level 1) and client-level (level 2) fixed effects in order to control for between-client and between-therapist variation in these effects, thereby producing more generalizable fixed effect estimates (Note that Sec = CATS Secure, Avo = CATS Avoidant-Fearful, Pre = CATS Preoccupied-Merger, $_{WC}$ = Within-Client, $_{BC}$ = Between-Clients, $_{BT}$ = Between-Therapists):

Level 1 Model:

$$OQ = \rho_0 + \rho_1 \times Session\ Number + \rho_2 \times Sec_{WC} + \rho_3 \times Avo_{WC} +$$
$$\rho_4 \times Pre_{WC} + e$$

Level 2 Model:

$$\rho_0 = \beta_{00} + \beta_{01} \times Sec_{BC} + \beta_{02} \times Avo_{BC} + \beta_{03} \times Pre_{BC} + r_0$$

$$\rho_1 = \beta_{10} + r_1$$

$$\rho_2 = \beta_{20} + r_2$$

$$\rho_3 = \beta_{30} + r_3$$

$$\rho_4 = \beta_{40} + r_4$$

Level 3 Model:

$$\beta_{00} = \gamma_{000} + \gamma_{001} \times Sec_{BT} + \gamma_{002} \times Avo_{BT} + \gamma_{003} \times Pre_{BT} + u_0$$

$$\beta_{01} = \gamma_{010} + u_{01}$$

$$\beta_{02} = \gamma_{020} + u_{02}$$

$$\beta_{03} = \gamma_{030} + u_{03}$$

$$\beta_{10} = \gamma_{100} + u_{10}$$

$$\beta_{20} = \gamma_{200} + u_{20}$$

$$\beta_{30} = \gamma_{300} + u_{30}$$

$$\beta_{40} = \gamma_{400} + u_{40}$$

Time-level results: Testing hypotheses. All fixed effects are shown in Table B4, and random effects are shown in Table B5.

Because OQ-45 scores were standardized, initial scores were significantly lower than average scores, as indicated by the significant, negative OQ-45 intercept, $\gamma_{000} = -0.06$, $SE = 0.02$, $t(25) = 1.08$, $p = .029$. The significance level for the client-level variance component for the OQ-45 intercept was not calculated. The therapist-level variance component for the OQ-45 intercept was not significant (0.05, $p = .138$), indicating that initial symptom levels did not vary between- therapists. On the time-

level, the fixed effect for Session Number was negative and non-significant, $\gamma_{100} = -0.13$, $SE = 0.08$, $t(28) = -1.55$, $p = .133$, suggesting that time in treatment was not associated with subsequent symptoms. The client-level variance component for Session Number was significant (0.04, $p < .001$), indicating that the non-significant relationship between time in treatment and subsequent symptoms varied between-clients. The therapist-level variance component for Session Number was also significant (0.05, $p = .002$), suggesting that this relationship also varied between-therapists.

To test the hypotheses, the time-level fixed effects for Secure, Avoidant-Fearful, and Preoccupied-Merger were examined to determine within-client associations of attachment to therapist and subsequent symptoms. Time-level Secure had a significant, negative, small effect on subsequent symptoms, $\gamma_{200} = -0.15$, $SE = 0.06$, $t(28) = -2.64$, $p = .013$. Therefore, when a client reported secure attachment to therapist that was 1 unit higher than other times in therapy, their subsequent symptoms were .15 standard deviations lower. Furthermore, within-client differences in insecure attachment to therapist were not associated with subsequent symptom levels, as indicated by non-significant fixed effects for time-level Avoidant-Fearful and Preoccupied-Merger, $\gamma_{300} = -0.09$, $SE = 0.06$, $t(28) = -1.36$, $p = .186$ and $\gamma_{400} = -0.02$, $SE = 0.05$, $t(28) = -0.36$, $p = .719$, respectively. Therefore, support was found only for the hypothesis that increases in secure attachment to therapist contribute to subsequent improvements, and not for the hypotheses regarding decreases in insecure attachment to therapist. These results suggest that the unique effect of developing a

more secure attachment to therapist contributes to later improvements, regardless of concurrent insecurity in the therapeutic relationship.

Although not hypothesized, the random effects for the time-level fixed effects indicated whether the strength of the relationships between within-client CATS scores and subsequent symptoms varied between-clients and/or between-therapists. The relationship between time-level Secure and subsequent symptoms varied between-clients as indicated by the significant variance component on the client-level (0.05, p < .001). The therapist-level variance component for time-level Secure was not significant (0.00, p > .500), suggesting the relationship between time-level secure attachment to therapist and subsequent symptoms did not vary as a function of the therapist. For time-level Avoidant-Fearful, the client-level variance component was significant (0.01, p < .001), indicating that the non-significant relationship between avoidant-fearful attachment to therapist and subsequent symptoms varied between-clients. The therapist-level variance component for time-level Avoidant-Fearful was not significant (0.03, p < .366), suggesting that this relationship did not vary between-therapists. For time-level Preoccupied-Merger, the client-level variance component was significant (0.03, p = .008), indicating that the non-significant relationship between preoccupied-merger attachment to therapist and subsequent symptoms varied between-clients. The therapist-level variance component for time-level Preoccupied-Merger was not significant (0.00, p > .500), suggesting that this relationship did not vary between-therapists.

Client-level and therapist-level results: Exploring between-client and

between-therapist associations of CATS and subsequent OQ-45. Additionally, the

fixed effects for client-level and therapist-level CATS were explored, which indicate

whether between-client differences and between-therapist differences in client

attachment to therapist were associated with subsequent symptoms, respectively. The

fixed effect for client-level Secure was a significant, positive, small effect $\gamma_{010} = 0.10$,

$SE = 0.04$, $t(28) = 2.69$, $p = .012$, suggesting that clients who reported a more secure

attachment to their therapist (in comparison to other clients seeing the same therapist)

reported more subsequent symptoms on average. The therapist-level variance

component for client-level Secure was not significant (0.00, $p > .500$), suggesting that

the relationship between client-level Secure and subsequent symptoms did not vary

between-therapists. As well, client-level Avoidant-Fearful had a significant, positive

association with subsequent symptoms, $\gamma_{020} = 0.08$, $SE = 0.04$, $t(28) = 2.09$, $p = .046$,

indicating that clients who reported more avoidant-fearful attachment to therapist also

reported more subsequent symptoms on average. This effect did not vary between-

therapists as indicated by a non-significant therapist-level variance component (0.00,

$p > .500$). The fixed effect for client-level Preoccupied-Merger was negative and non-

significant, $\gamma_{030} = -0.02$, $SE = 0.02$, $t(28) = -1.18$, $p = .249$. Therefore, between-client

differences in preoccupied attachment to therapist were not associated with

subsequent symptoms. The therapist-level variance component for client-level

Preoccupied-Merger was also not significant (0.00, $p > .500$).

There were no significant therapist-level fixed effects, suggesting that

between-therapist differences in client attachment to therapist were not associated

with subsequent symptoms. The non-significant therapist-level results for each CATS subscale were: Secure, $\gamma_{001} = -0.01$, $SE = 0.03$, $t(25) = -0.46$, $p = .647$; Avoidant-Fearful, $\gamma_{002} = -0.01$, $SE = 0.02$, $t(25) = -0.32$, $p = .749$; Preoccupied-Merger, $\gamma_{003} = -0.01$, $SE = 0.02$, $t(25) = -0.58$, $p = .568$.

Discussion

Bowlby's (1988) attachment theory of psychotherapy proposed that some sense of security in the therapeutic relationship must be established for psychotherapy to begin. His theory also suggests that clients develop security over the course of therapy and come to view their therapist as a secure base. Building on Bowlby's theory, more recent theorists suggest positive outcomes can be achieved by tailoring the therapeutic relationship to the individual client's attachment dynamics in order to establish some initial security, and then gradually adjusting the relationship over time to facilitate a corrective emotional experience (e.g., Daly & Mallinckrodt, 2009; Mallinckrodt, 2010; Lilliengren, 2014). From this perspective, the present study examined if clients' attachment relationship with their therapist changed over time, and whether such changes were associated with subsequent improvements in symptoms in a sample of 112 community clients receiving psychodynamic therapy from 29 doctoral trainee therapists, over 661 eight-session time periods (5,288 sessions). Hierarchical linear modeling was used to examine the extent to which clients' attachment to their therapist changed over the course of therapy. As well, the association between client attachment to therapist and subsequent symptom levels was tested at the time-level (within-clients), the client-level (between-clients, within-therapists), and the therapist-level (between-therapists). Overall, the results were

consistent with Bowlby's (1988) secure base theory of psychotherapy, indicating that when clients' secure attachment to their therapist developed over the course of therapy, improvements in symptoms followed. Importantly, this longitudinal study adds to the extent literature on client attachment to therapist by examining the relationship between within-client differences in client attachment to therapist and outcome.

Change in Client Attachment to Therapist

Clients' attachment to their therapist changed over the course of therapy such that secure attachment to therapist increased and avoidant-fearful attachment to therapist decreased, both with a small effect size. The finding that secure attachment to therapist increased is consistent with previous research (Janzen et al., 2008; Woodhouse et al., 2003). Janzen and colleagues (2008) examined the first 4 sessions of therapy and found that clients secure attachment to their therapist increased after relationship building moments with their therapists. As well, Woodhouse et al. (2003) reported a significant, positive correlation between secure client attachment to therapist and length of treatment, suggesting an increase over time in security. The present finding extends these results by showing that security in the therapeutic relationship continues to increase over longer-term treatment. Taken together, these findings suggest that clients become more secure (and less avoidant) with their therapist over the course of treatment, which is consistent with Bowlby's (1988) theory of psychotherapy.

Woodhouse and colleagues noted that the correlation between treatment length and secure attachment to therapist may indicate that clients who are able to

establish some amount of security remain in therapy longer, which suggests between-client differences. The present study did show that secure attachment to therapist increased more for some clients than others, and that avoidant-fearful attachment to therapist decreased more for some clients than others. As well, results showed that some therapists were more able to increase their clients secure attachment to therapist more so than other therapists, suggesting that therapists have different abilities to foster security in their clients. Future research should examine what factors contribute to these between-client and between-therapist differences. Though not examined in the present study, global attachment style may be one potential explanation. Prior research has shown that insecure client attachment to therapist is associated with both client attachment insecurity (Mallinckrodt & Jeong, 2015) and therapist attachment insecurity (Petrowski et al., 2013). Clients with a more secure attachment style may be able to establish a secure relationship with their therapist more easily. As well, secure therapists may be more flexible and able to adapt their approach with insecure clients in order to foster a secure therapeutic attachment relationship.

Interestingly, preoccupied-merger attachment to therapist did not change over the course of therapy. Similarly, Janzen et al. (2008) found no changes in preoccupied attachment to therapist during the first four sessions of therapy. It may be that the therapists were more effective at facilitating clients' who were avoidant with their therapist to open-up, become more comfortable in the relationship, and rely on more security-based strategies. Whereas, reducing a preoccupied attachment to therapist may be more challenging due to these clients' use of hyperactivating strategies. This explanation seems plausible given that clients' attachment anxiety (i.e.,

preoccupation), but not avoidance, is associated with poorer therapy outcomes (Levy et al., 2011). These post-hoc explanations should be taken with caution, however, and future research should investigate the in-session processes that contribute to changes in client attachment to therapist. Specifically, which therapist interventions help clients shift from insecurity towards secure behaviors should be investigated.

Do Improvements in Client Attachment to Therapist Predict Psychotherapy Outcomes?

As hypothesized, when a client's secure attachment to therapist increased, their subsequent symptom levels were lower, suggesting that developing a more secure attachment to therapist contributes to positive therapy outcomes. This finding is consistent with previous studies that demonstrated a secure attachment to therapist is associated with better outcomes (Mallinckrodt et al., 2017; Sauer et al., 2010), but the present findings extend this research by examining within-client differences.

Contrary to the hypotheses, within-client changes in avoidant-fearful or preoccupied-merger attachment to therapist had no significant relationship to subsequent symptoms. Notably, secure attachment to therapist was strongly correlated with avoidant-fearful attachment to therapist ($r = .73$) which may explain why avoidant-fearful attachment was non-significant after controlling for secure attachment to therapist. Given that preoccupied-merger attachment to therapist did not change over the course of therapy in the present sample, it is not surprising it had no significant relationship with subsequent symptoms at the time-level. Collectively, these within-client findings suggest that the development of a secure attachment to therapist contributes to positive outcomes regardless of the degree of a client's

insecurity within the therapist. Additionally, these results suggest that increasing a client's sense of security with the therapist may be more important than working to reduce their insecurity.

Interestingly, increases in secure attachment to therapist had a stronger relationship with improvements in symptoms for some clients compared to others. The between-client differences may also be explained by client characteristics, such as secure attachment style. Previous research has shown that client attachment anxiety and avoidance (where low anxiety and low avoidance indicates secure attachment style) are negatively associated with secure attachment to the therapist (Mallinckrodt & Jeong, 2015), and that client attachment security is associated with improved therapy outcomes (Levy et al., 2011) and stronger working alliances (Diener & Monroe, 2011). A secure attachment style likely bolsters a client's ability to develop a secure attachment relationship with their therapist, utilize their therapist as a secure base, and ultimately improve more as a result of therapy. It is surprising that the strength of this effect did not vary between-therapists, especially given that some therapists in the sample were able to increase their clients' secure attachment to therapist more than others. It may be that the uniformity of therapists training and experience diminished differences between therapists. In a larger sample of therapists with greater expertise and more diverse training backgrounds, these results may differ.

Exploration of client-level results yielded interesting findings for secure and avoidant-fearful attachment to therapist. Clients, within a therapist's caseload, who reported more avoidant-fearful attachment to therapist on average had poorer

outcomes, which is consistent with existing research (Mallinckrodt et al., 2017; Wiseman & Tishby, 2014). If clients are consistently, highly avoidant with their therapist, they likely feel more uncomfortable disclosing in session (Saypol & Farber, 2010), are less likely to engage in deep exploration (Mallinckrodt et al., 2005) and thus will have difficulties benefiting from therapy. Interestingly, clients who reported greater secure attachment to their therapist, compared to other clients seeing the same therapist, also reported more symptoms on average. This between-client finding is contrary to what prior studies have found (Mallinckrodt et al., 2017; Sauer et al., 2010), and is opposite the direction of the within-client result in the present study. One possible explanation for this result is that clients who were more secure in their relationship with their therapist on average (compared other clients seeing the same therapist) were more comfortable disclosing their symptoms, more open to exploring their own emotional pain, and thus, reported more symptoms on average as a result. Thus, this finding does not contradict with the within-client finding that increases in secure attachment to therapist over time predict improvements in symptoms, which is based on comparison of a given client to themselves. Alternately, clients reporting especially high security, compared to the therapist's other clients may, be pseudosecure. Pseudosecure clients report both high secure attachment to therapist and high preoccupied attachment to therapist (Mallinckrodt et al., 2017). Characterized by maladaptive dependency on others, idealization of their therapist, and hyperactivating emotion regulation strategies, pseudosecure clients likely have diminished therapy outcomes (Mallinckrodt et al., 2017). Pseudosecure clients can be considered defensive self-reporters (Shedler, Mayman, & Manis, 1993) to the extent

that they report positive evaluations of their attachment to therapist, despite suffering from more symptoms and interpersonal problems. Interestingly, preoccupied-merger attachment to therapist had no significant relationship to subsequent symptoms at the client-level. As well, there were no significant therapist-level results. The absence of results at this level suggests that a therapist's ability on average to foster a secure (or insecure) attachment with their clients overall did not predict outcome in the present sample. This may suggest that the effect of client attachment to therapist on outcome for a given client is most important at the within-client level, and is more dependent on the specific dyadic relationship than the therapist on average. These results were exploratory, however, and therapist-level effects of attachment to therapist on outcome should be investigated in future studies, with larger samples.

Strengths and Limitations

The generalizability of these findings may be limited to trainee therapists delivering psychodynamic psychotherapy. This limitation could result in attenuated findings, to the extent that more experienced therapists may be more skilled at developing secure attachment relationships with their clients and utilizing the secure base of the therapeutic relationship to facilitate positive outcomes for clients. However, psychodynamic therapists typically emphasize the client-therapist relationship more so than some other types of psychotherapy (e.g., cognitive-behavioral), and the clinic in which the study took place endorses conceptualizing clients from an attachment perspective. So, it is reasonable to expect that these results reflect the relational processes of change typically found in interpersonal and psychodynamic therapies.

Although this approach added to the literature by demonstrating that increased secure attachment to therapist predicts later improvements in symptoms, a limitation of this approach is that it does not examine when the changes occurred or if the timing of such changes mattered. Related to this limitation, hierarchical linear modeling could not adequately test whether changes in symptoms preceded changes in security, or the other way around. This question has been an issue of debate in the study of the working alliance (e.g., Barber, 2009) and should be better addressed in future research of client attachment to therapist using analytic methods like RI-CLPM (Hamaker et al., 2015). It is possible that there is a reciprocal relationship between client attachment to therapist and psychotherapy outcomes, consistent with the concept of broaden-and-build cycles of attachment security (Mikulincer & Shaver, 2016). As Lilliengren (2014) describes, the development of security leads to deeper therapeutic work that then contributes to reductions in symptoms, improvements in relationships and social role functioning outside of therapy, which in turn contributes to increased security in the therapeutic relationship. At the same time, the development of a secure attachment at the beginning of therapy may precede improvements in symptoms, given that a secure attachment to therapist enables deeper exploration (Mallinckrodt et al., 2005) and Bowlby's (1988) hypothesis that some security is necessary for therapy to even begin.

A strength of this study was the use of hierarchical linear modeling to examine within-client differences in attachment to therapist, using repeated measures, longitudinal data. No prior research has examined the relationship between within-client attachment to therapist and therapy outcomes. Within-client changes are

especially meaningful because they focus ideographically on what is happening with individual clients. This type of ideographic research is directly practice related. The relationship between within-client secure attachment to therapist and outcome was the strongest effect to emerge in the analyses, which suggests that therapists should focus on helping their client increase secure attachment in the therapeutic relationship, compared to the clients own average secure attachment. These findings are aligned with attachment informed and interpersonal theories of change in psychotherapy that state that the struggle to establish a secure relationship with the therapist is the process by which clients develop new ways of relating to others, improved social competencies, and ultimately reductions in symptoms (Mallinckrodt, 2010; Mallinckrodt et al., 2017; Teyber & Teyber, 2017). As well, this conclusion is fitting with the notion that clients who earn security in the therapeutic relationship (despite their insecurity) improve more as a result, which has been supported empirically (Mallinckrodt et al., 2017). However, the current study does not directly examine the processes that led to the development of secure attachment to therapist, or the mechanisms that link the development of security to positive outcomes.

Future research should investigate the in-session, moment-to-moment processes and therapist interventions that contribute to the development of a secure attachment to therapist. Janzen and colleagues (2008) research of critical moments in therapy suggests that clients experience of the therapist's empathy, attunement, validation, non-judgment, and facilitation of insight are the types of moments that precede increases in secure attachment to therapist. Another line of research has examined how clients' secure and insecure communication strategies during sessions predict

rupture resolution in the therapeutic alliance. Repairing ruptures – the challenging moments that result from conflict and a lack of attunement in the therapeutic relationship – has been linked to positive therapy outcomes (Eubanks, Muran, & Safran, 2018). In a study using the Patient Attachment Coding System (PACS; Talia, Miller-Bottome, & Daniel, 2017), clients' secure or insecure communication patterns were used to predict client and therapist ratings of rupture resolution (Miller-Bottome et al., 2019). Clients' secure in-session communication strategies were associated with higher client and therapist ratings of rupture resolution. Fostering a secure attachment to therapist likely aids a client's ability to resolve ruptures in the therapeutic relationship and may also lead to increases in security in the therapeutic relationship as clients learn that difficulties in relationships can in fact end well. From an attachment perspective, the corrective emotional experience of repairing ruptures may contribute to clients' revision of their maladaptive inner working models. Research that examines how the client attachment to therapist changes before and after rupture resolution may be a fruitful direction to go. As well, examining within-client changes in clients' secure or insecure communication behavior over the course of therapy could provide a better indicator of change in client attachment to therapist.

Relatedly, more sophisticated measurement of the client attachment to therapist should be used in future research. While the CATS is a convenient self-report measure, attachment processes are complex and may not adequately be captured by self-report. Furthermore, mono-method bias poses a concern when only client-rated self-report measures are utilized, as they were in this study. Observer-rated measures can be used to reduce this issue, and more closely examine attachment processes

during sessions. Measures like the PACS and the Patient Attachment to Therapist Rating Scale (PAT-RS; Lilliengren et al., 2014) are observer rated measures that can be used to this end. As well, therapists' in session attachment related responsiveness to the client can be assessed with the Therapist Attunement Scale (TASc; Talia et al., 2018). TASc is a coding system that classifies therapists' responses based on their degree of attunement to the client. Though time intensive, repeated measures studies that utilize observer-rated measures at time points across therapy may capture more nuance in the attachment related processes that take place in therapy, and clarify how they contribute to positive outcomes for clients.

Chapter II. Extended Literature Review

John Bowlby's attachment theory (1982/1969, 1988) was a departure from psychoanalytic drive theory that instead emphasized the importance of close emotional bonds, with profound implications for understanding personality development, the therapeutic relationship, and change in psychotherapy. The theory of adult attachment is highly applicable to the practice and study of psychotherapy because it provides a framework to understand the development of client's perceptions of self and others and how they are enacted in ways that can either support or diminish relationship satisfaction and well-being. This literature review provides an overview of attachment theory and adult attachment, a review of measures of adult attachment and client attachment to the therapist, followed by a review of attachment theory in psychotherapy. The last section highlights the role of the therapist as a secure base and the empirical study of the client attachment to the therapist.

Overview of Attachment Theory

Attachment theory posits that human beings have an innate evolutionary need to form primary relationships that provide safety and security (Bowlby, 1982/1969). Bowlby (1982/1969) described an ethological theory of the attachment of young children to their primary caregivers (*attachment figures*) that is made up of two complimentary systems: an exploratory system and a proximity-seeking system. In essence, when the child feels safe and secure with their caregiver, the exploratory system activates, and the child can freely explore their physical and social environment. When the child is in need, due to hunger, illness, or the presence of

danger, exploration of the environment ceases and the proximity-seeking system

activates. When the proximity-seeking system is active, the child's behavior functions

to cue the caregiver to reduce the child's distress by tending to the child's needs.

Thus, the attachment pattern is a combination of behavior and emotion regulation

employed when the attachment system is activated. A secure attachment relationship

develops if the caregiver is consistently responsive and provides the child with

comfort and security. If the caregiver is inconsistent in their response, or consistently

unresponsive and emotionally unavailable, an insecure attachment relationship can

develop. Ainsworth, Blehar, Waters, and Wall (1978) identified three different

attachment patterns in infants in their laboratory studies – called the Strange Situation

– that corroborate this theory. *Securely* attached infants explored comfortably in the

presence of their caregiver, displayed some anxiety when separated from their

caregiver, but were easily comforted and able to regulate their emotions. Insecurely

attached infants did not explore freely and fell into two distinct categories, *anxious-*

ambivalent and *anxious-avoidant*. Anxious-ambivalent infants displayed exaggerated

affect, clung to their caregivers, and were difficult to console. Anxious-avoidant

infants were disinterested in their caregivers and exhibited minimal affect.

Adult Attachment

Bowlby (1988) held that the attachment system operates throughout the

lifespan, and that the attachment patterns developed in infancy are carried into

adulthood. These patterns are applied to relationships with other attachment figures

throughout life (i.e., romantic partners, close loved ones, therapists, etc.) These

patterns are referred to as attachment styles (also referred to as global attachment),

and are dependent on the extent to which an individual has learned to expect others to be warm, responsive, supportive, and emotionally available as a result of early experiences with caregivers.

Bartholomew & Horowitz (1991) developed a categorical model of adult attachment styles based on positive and negative inner working models of self and other, which added a fourth category to distinguish differences in two types of avoidant attachment styles. *Securely* attached adults have both low anxiety and avoidance. They have a positive model of self and other and are thus comfortable with independence and intimacy. Adults with *preoccupied* attachment have high anxiety and low avoidance. They have a negative model of self and positive model of others, which results in preoccupation in relationships, dependency on others to regulate emotions, and a diminished sense of self-worth. *Dismissing* adults have low anxiety and high avoidance. They have a positive model of self and a negative model of others, which results in self-dependence and a dismissal of intimacy. *Fearfully* attached adults have both high anxiety and avoidance. They have a negative working model of self and other and are therefore socially avoidant and fear intimacy. Later research challenged categorical models and found that adult attachment style was best described on continuous dimensions of anxiety and avoidance (Brennan, Clark, & Shaver, 1998; Fraley & Waller, 1998), however it is notable that each category of Bartholomew and Horowitz model can be thought of in terms of combinations of anxiety and avoidance.

Later models of adult attachment highlighted the attachment system regulation strategies individuals employ in terms of two dimensions, *secure-disorganized* and

hyperactivation-deactivation (Kobak, Cole, Ferenz-Gillies & Fleming, 1993;

Mikulincer & Shaver, 2016). According to Mikulincer and Shaver's (2016) model,

secure individuals proactively seek an attachment figure, access their own abilities to

regulate emotions, or access an internalized representation of an attachment figure to

regulate emotions and manage their distress. In their model of attachment dynamics,

they describe a cycle of mental and behavioral processes called the *broaden-and build*

cycle of attachment security. The broaden-and-build cycle occurs through repeated

interactions with an attachment figure when an individual appraises an attachment

figure as available and responsive, leading to the individual having their needs met,

and thus to a sense of safety, relief, and positive affect. According to Mikulincer and

Shaver (2016), this cycle leads to social adjustment, regulation of emotions, stability,

and ultimately, increased autonomy. For individuals with insecure attachments rely

on secondary strategies. Individuals with attachment anxiety are prone to use

hyperactivating strategies, by expressing exaggerated affect to keep others close and

have their needs met. Individuals with attachment avoidance are prone to utilize

deactivating strategies by suppressing affect and reducing communication of their

needs. Although these strategies may have been successful and necessary in early

relationships, they can ultimately lead to increased distress, poorer adjustment, and

difficulties in relationships. Mikulincer and Shaver note that individuals with

disorganized attachment (high on anxiety and avoidance) struggle to choose between

either secondary strategy, cope in chaotic ways, and often distance themselves in

relationships as a result.

Measures of Adult Attachment

A proliferation of reliable and valid measures to assess adult attachment have been created across the fields of developmental and social psychology. Several of these measures have been applied or adapted for use in psychotherapy research, in addition to the development of psychotherapy specific measures of attachment. This section will summarize the existing measures of adult attachment style and provide a detailed description of the measures of client attachment to the therapist specifically.

Semi-Structured Interviews to Assess Adult Attachment

George, Kaplan, and Main (1985) developed the first measure of adult attachment patterns for application in the developmental field, called the Adult Attachment Interview (AAI). The AAI is an 18 question semi-structured interview administered by a trained interviewer that was designed to capture the individual's memories, thoughts, and feelings about their early attachment experiences. The purpose of this approach was to assess the individual's state of mind regarding attachment through the process of reflection. A coding system that assesses the way that the individual speaks about their childhood (not the content of their recollections) was developed in order to categorize adult attachment, and use those categories to predict infant attachment patterns in the Strange Situation (Main & Goldwyn, 1984). The AAI's primary categories for adult attachment are *autonomous* (related to securely attached infants)*, preoccupied* (related to insecure-ambivalent infant attachment), and *dismissing* (related to insecure-avoidant infant attachment). Additional categories have been added to the coding system, including *unresolved* attachment for cases in which individuals have unresolved trauma or loss, and a

cannot classify category for cases that are incoherent, or exhibit combinations of dismissing and preoccupied speech (Hesse, 1996). Meta-analysis shows considerable evidence that these categories predict infant attachment (van Ijzendoorn, 1995). An alternative coding system for the AAI scores interviews on two, continuous, orthogonal dimensions (*secure-anxious* and *deactivation-hyperactivation*) using a 100 item Q-sort (Kobak, Cole, Ferenz-Gillies & Fleming, 1993). The secure-anxious dimension assesses the individual's level of coherence in their attachment narrative. The deactivation-hyperactivation dimension assesses to what extent the individual dismissed, avoided, and minimized (deactivating strategies) or became carried away and preoccupied (hyperactivating strategies) with their thoughts and feelings while sharing their attachment narrative.

Self-Report Measures of Adult Attachment

The self-report measures developed initially for the field of social psychology have given way to the measures of attachment used in psychotherapy research today.

Hazan and Shaver (1987) developed a very simple self-report measure to assess adult attachment in romantic relationships, which asked individuals to self-categorize based on short descriptions of *secure*, *avoidant*, and *ambivalent* attachment styles. While this measure has been criticized for its simplicity and resultant psychometric limitations, it marked a shift in measurement approaches. Hazan and Shaver's measure assessed attachment style in the context of present day, adult relationships, whereas the AAI assessed attachment style based on a narrative representation of the childhood caregiver. These two approaches arguably capture different yet closely related constructs.

In order to capture adult attachment with more psychometric detail, multi-item self-report measures using Likert-scale responses were created. These include the Adult Attachment Scale (AAS; Collins & Read, 1990), an 18-item survey that assess three dimensions of attachment as demonstrated by factor analysis. These dimensions are called Close (marked by comfort with closeness), Anxiety (marked by fear of abandonment), and Depend (marked by an ability to depend on others). Building on the adult attachment classifications that emerged from the developmental and social psychology literature, Bartholomew and Horowitz (1991) tested their four-category model of attachment which they measured with The Relationship Questionnaire (RQ). Similar to Hazen and Shaver's measure, they asked individuals to self-categorize after reading short descriptions of *secure, preoccupied, dismissing,* and *fearful* attachment styles. Griffin & Bartholomew (1994) later developed the Relationship Scale Questionnaire (RSQ) which assesses the same model in a 30-item survey and provides both categorical and dimensional scores for this model.

While categorical models of attachment are clinically useful, there is consensus that self-report measures of attachment are best conceptualized on two continuous dimensions of, *Avoidance* and *Anxiety* (Brennan et al., 1998; Fraley & Waller, 1998). Brennan et al. (1998) utilized factor analysis and developed the Experiences In Close Relationships Scale (ECRS) to measure attachment on these two dimensions in a large scale study ($n = 1086$). The ECRS is a 36-item questionnaire that uses a 7-point Likert scale, and asks questions that tap the extent to which an individual fears rejection and abandonment (Anxiety) and/or feels discomfort with closeness and intimacy (Avoidance) in interpersonal relationships,

generally. Together, scores on the Anxiety and Avoidance subscales correspond with Bartholomew and Horowitz (1991) four-category typology: secure individuals score low on both anxiety and avoidance; preoccupied individuals score high on anxiety and high on avoidance; dismissing individuals score low on anxiety and high on avoidance; and fearful individuals score high on both anxiety and avoidance.

Measures of Client Attachment to the Therapist

The measures of adult attachment reviewed above have been used to investigate the influence of both the client and therapist's attachment style in psychotherapy, but they are focused on measuring an individual's overall attachment style (called *trait* or *global* attachment). Trait-like attachment styles describe how individuals think, feel, and behave in relationships in *general*, but do not adequately describe how an individual may feel about a *specific* relationship at a given time, such as the therapeutic relationship. Bowlby (1988) theorized that the attachment style of both the client and therapist would both contribute to the therapeutic relationship, and that the therapeutic relationship served as an attachment relationship. Therefore, the attachment aspects of the therapeutic relationship can be thought of as *state-like*, dependent on the specific therapeutic dyad. Similarly, the working alliance, which is defined as the quality of the client-therapist *bond*, and the level of agreement on the *tasks* and *goals* of therapy (Bordin, 1979), has been shown to have a state-like aspect (Zilcha-Mano, 2017). Only modest associations have been found between ratings of adult attachment style and client attachment to the therapist, supporting the idea that they are distinct constructs (Janzen, Fitzpatrick, & Drapeau, 2008; Mallinckrodt, Gant, & Coble, 1995; Mallinckrodt, Porter, & Kivlighan; Romano, Fitzpatrick, &

Janzen, 2008; Sauer et al., 2010; Wiseman & Tishby, 2014). To assess the attachment

aspects of the therapeutic relationship specifically, self-report measures of adult

attachment have been modified and new measures developed.

Self-Report Measures of Client Attachment to Therapist

The Client Attachment to Therapist Scale (CATS) was developed by

Mallinckrodt, Gantt, and Coble (1995) to assess the attachment aspects of the

therapeutic relationship. An initial pool of 100 items was generated by 9 experienced

therapists (3 predoctoral interns and 6 doctoral level psychologists). These

participants were prompted to generate items that described client behavior with their

therapists that corresponded with the attachment patterns observed in Ainsworth et

al.'s (1978) Strange Situation study – *secure, ambivalent,* and *avoidant* patterns. The

items are statements of opinion to which clients agree or disagree with responding on

a 6-point Likert scale (ex., "When I'm with my counselor, I feel I am his/her highest

priority.") Factor analysis of the initial hundred items yielded a final pool of 36 items

that loaded onto 3 distinct factors: *Secure, Avoidant-Fearful,* and *Preoccupied-*

Merger attachment to the therapist. The secure subscale assesses how much clients

perceive their therapist as warm, responsive, and emotionally available. Avoidant-

Fearful assesses how much clients are uncomfortable disclosing, fear rejection, or

expect judgment from their therapist. The Preoccupied-Merger subscale assesses how

much the client longs to be closer to the therapist, wishes to be their favorite client,

and to have the relationship go beyond the boundary of therapy. Multiple studies have

found strong internal consistency and test-retest reliability (Mallinckrodt et al., 1995,

2005; Woodhouse et al., 2003; Yostidi et al. 2018a) and corresponds as expected with

other measures of attachment insecurity and the working alliance (Mallinckrodt et al., 1995).

The CATS has received some criticism. Robbins (1995) questioned whether aspects of the CATS may not be meaningfully distinguishable from the working alliance. Particularly, it seems that the bond subscale of the Working Alliance Inventory (WAI; Horvath & Greenberg, 1989) captures a similar emotional relationship between client and therapist as the secure CATS subscale as indicated by strong correlations of about .80. However, Mallinckrodt et al. (2005) noted that when regressed together predicting object relations deficits and session exploration, the CATS accounted for unique variance that the WAI alone did not. They argued that the items on the CATS specifically taps into how clients perceive the therapist based on their inner models of self and other, and the proximity seeking behaviors they employ, whereas the WAI does not. In this sense, although there is high correlation between aspects of the CATS and the working alliance, they are distinct constructs.

Additional self-report measures that assess the attachment aspects of the client-therapist relationship include the Relationship Questionnaire-Therapist (RQ-T; Parish & Eagle, 2003b), a modified version of the RQ. Parish and Eagle (2003b) adjusted the paragraphs in the original RQ to reflect the therapeutic relationship. Clients categorize their relationship to the therapist into one of four typologies (*secure*, *preoccupied*, *dismissing*, *fearful*) and can also rate how much each of the paragraphs describe the relationship, producing a continuous score. The Components of Attachment Questionnaire-Therapist Version (CAQ-T; Parish & Eagle, 2003a, 2003b) is a self-report measure developed by the same researchers to assess the extent

to which the client's relationship with the therapist is characterized by nine central aspects of attachment relationships: *Proximity Seeking, Separation Protest, Secure Base, Safe Haven, Stronger/Wiser, Availability, Strong Feelings, Particularity,* and *Mental Representation*. A total score indicates the intensity of the attachment relationship. The CAQ-T captures the extent to which the therapist serves as an attachment figure but does not capture the quality of the attachment to the therapist in the way that the RQ-T or CATS does. The RQ-T and CAQ-T have been used in only a few studies (Parish & Eagle, 2003a, 2003b; Saypol & Farber, 2010).

Observer-Rated Measures of Client Attachment to Therapist

The Patient Attachment to Therapist Rating Scale (PAT-RS) is an observer-rated instrument used to assess the client's attachment to the therapist by coding interviews with client's describing their relationship with their therapist and experience of therapy (Lilliengren et al., 2014). The rating system scores the quality of the client's present relationship with their therapist on four subscales, drawn from the two-dimensional model of attachment: *secure-disorganized* and *deactivating-hyperactivating*. Lilliengren et al. (2014) argued that an observer-rated measure of client attachment to therapist may better assess the implicit-procedural, unconscious processes involved in attachment that self-report measures may be limited in capturing. As well, the researchers suggested that self-report method-bias may be the cause of some of the high correlation between the working alliance and client attachment to the therapist, and that observer-ratings could solve this problem. Indeed, weaker correlations between the alliance and client attachment to therapist were found in a sample of 70 young adults using the PAT-RS (Lillengren,

Falkenstrom, Sandel, Mothander, & Werbart, 2015). In addition to the PAT-RS, the Patient-Therapist Adult Attachment Interview (PT-AAI) is an adapted version of the AAI that has been used in few studies of the client attachment to therapist (Diamond, Stovall-McClough, Clarkin, & Levy, 2003).

Upon review of the available instruments, the CATS seems to be the optimal measure for longitudinal research on client attachment to therapist for a few reasons: its wider use and validation in the literature and the efficiency of self-report measurement (despite some limitations) compared to observer-rated measures. Despite good theoretical basis and some promising results, time and resources limit the use of an observer-rated measure especially in longitudinal research. Conducting interviews, training raters, and doing so to generate samples large enough for longitudinal research requires a great deal more resources than self-report measures.

Psychological Distress and Attachment Style

Attachment Style and Psychopathology

Attachment styles are not inherently psychopathological, but they may be considered maladaptive when they are rigidly and inappropriately applied to present day relationships. As well, insecure attachment patterns seem to serve as a general risk factor for psychopathology, although there is little to no evidence of a causal relationship between attachment and diagnostic categories (Mikulincer & Shaver, 2012). In a comprehensive review of hundreds of studies, Mikulincer and Shaver (2016) found that insecure attachment is associated with increased psychological distress as indicated by high neuroticism and negative affectivity (e.g., Shaver & Brennan, 1992) and with measures of psychological distress and psychiatric

symptoms (e.g., Wiseman & Tishby, 2014). As well, Mikulincer and Shaver (2016)

report considerable evidence that both attachment insecurity is linked with mental

illness including anxiety (e.g., Bosman, Braet, & Van Vlierberghe, 2010), depression

(e.g., Cole-Detke & Kobak, 1996), self-harm and suicidality (e.g., Gormley, &

McNiel, 2010), obsessive-compulsive disorders (e.g., Doron, Moulding, Kyrios,

Nedeljkovic, & Mikulincer, 2009), post-traumatic stress (e.g., Ein-Dor, Doron,

Solomon, Mikulincer, & Shaver, 2010), and eating disorders (e.g., Cole-Detke &

Kobak, 1996). As well, attachment insecurity is a central component of personality

disorders (Crawford et al., 2007). Furthermore, attachment insecurity is prevalent

amongst individuals with psychiatric disorders (van Ijzendoorn & Bakermans-

Kranenberg, 2008). This evidence demonstrates an important link between

attachment and psychopathology and calls the attention of clinicians to the role

attachment style in understanding and working with their clients.

Psychotherapy Outcome as Measured by the Outcome Questionnaire-45

Understanding the relationship between attachment style, client attachment to

the therapist, and psychotherapy outcomes is a growing area of research. The

Outcome Questionnaire-45 (Lambert et al., 1996; Lambert, Gregersen, &

Burlingame, 2004) is a widely used self-report measure that can be used for this

purpose. The OQ-45 was developed to assess baseline symptoms and to monitor

client progress in psychotherapy. The OQ-45 has indeed shown sensitivity to changes

in symptoms over time (Vermeersch et al., 2004). The OQ-45 is comprised of 45

items that assess the frequency of symptoms over the past week. Clients respond on a

5-point scale (0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *frequently*, 4 = *almost*

always). The OQ-45 assesses psychological distress on three proposed subscales *symptom distress* (25 items), *interpersonal relationships* (11 items)*,* and *social role* (9 items) based on the domains for outcome assignment according to Lambert (1983). Symptom distress captures subjective discomfort like depression and anxiety ("I feel blue"), interpersonal relationships captures challenges with friends, family, marital relationships ("I feel lonely"), and social role performance captures functioning in important roles, like work and school ("I feel stressed at work/school"). A total score can be created to capture breadth of psychological distress levels. While Lambert et al. (1996) demonstrated good internal consistency ($\alpha = .93$) and test-retest reliability when using the total score ($r = .84$), factor analysis has called into question. Mueller, Lambert, and Burlingame (1998) used confirmatory factory analysis, and found that one-factor fit as well as a two- and three-factor structure. Later research found a bilevel factor structure, which supports use of the total score and subscale scores (Bludworth, Tracey, and Glidden-Tracey, 2010).

Attachment Style and Therapy Process and Outcome

The literature on attachment style in psychotherapy has examined client attachment style and therapist attachment style independently, the interaction between the two, and their associations with treatment outcomes and other relationship factors such as the working alliance, attachment to the therapist, and countertransference. Largely, this body of research speaks to the benefit of attachment security, and the potential detriments of insecurity.

Regarding client attachment style, a meta-analysis of 14 studies with a total sample of 1,467 clients across 19 therapy cohorts, Levy et al. (2011) found small to

moderate associations demonstrating that clients with greater attachment security had improved outcomes ($d = .37$), clients with greater attachment anxiety had diminished outcomes ($d = .46$), and attachment avoidance had no association with treatment outcomes. Later studies have shown that clients with avoidant attachment style may have diminished improvement (e.g., Wiseman & Tishby, 2014). Additionally, meta-analyses have demonstrated that client attachment anxiety and avoidance are significantly negatively associated with ratings of the working alliance (Bernecker, Levy, & Ellison, 2014; Diener & Monroe, 2011), though these associations are small. Studies have also examined therapist attachment style and found that securely attached therapists form stronger working alliances with their clients (Ackerman & Hilsenroth, 2003; Henry, Schacht, & Strupp, 1994; Henry & Strupp, 1990). Therefore, attachment insecurity may somewhat inhibit alliance development, while more securely attached clients appear to establish stronger alliances with their therapists. Given the consistent finding that the alliance is positively associated with good therapy outcomes (Flückiger et al., 2018), the relationship between attachment style and alliance is one pathway that attachment may impacts outcomes.

Research has also found interactions between client and therapists attachment style. Tyrell, Dozier, Teague, & Fallot (1999) found that therapists who relied on deactivating attachment strategies formed stronger alliances with hyperactivating clients, and that therapists who relied on hyperactivating strategies formed stronger alliances with deactivating clients. Marmarosh et al. (2014) found that clients rated the alliance stronger in dyads when the client had low attachment anxiety and the therapist high attachment anxiety, or when clients had high anxiety and therapists had

low anxiety. Mohr, Gelso, & Hill (2005) examined client-therapist attachment match and countertransference behavior. Results found that therapists with high attachment anxiety exhibited more hostility with avoidant clients, and that therapists with high attachment avoidance exhibited more hostility with anxious clients. These findings demonstrate the way attachment style is carried out in the therapeutic relationship (through attachment strategies or countertransference behavior) can impact psychotherapy process, and likely the outcome. Wiseman & Tishby (2014) examined client-therapist attachment match and outcome and found that when client and therapists were both low on avoidance, clients had better outcomes than when the therapist was low on avoidance and the client high on avoidance. Additionally, they found that clients improved the least if they were high on attachment avoidance and formed an avoidant attachment to their therapist. Petrowski et al. (2013) found that clients reported a more avoidant-fearful attachment to their therapist when the therapist's attachment style was dismissing, and that clients reported more preoccupied-merger attachment to their therapist when the therapist attachment style was preoccupied. Taken together, these studies show that the specific configuration of therapist and client attachment can have a meaningful impact on psychotherapy process and outcomes.

The Client-Therapist Attachment Relationship

Therapist as Attachment Figure

Attachment figures are not simply close others, but are special relationships that individuals turn to when in need of safety and support. Bowlby (1988) theorized that the therapist serves as an attachment figure for the client, given the similarities to

the infant-caregiver relationship. Researchers and clinicians have argued similarly, while highlighting substantial differences between patient-therapist and parental relationships, like the duration, and levels of emotional investment and objectivity (e.g. Dozier & Tyrell, 1998; Farber, Lipert, & Nevas, 1995; Farber & Metzger, 2009, etc.). While therapists are certainly not parents to their clients, evidence supports the idea that the therapeutic relationship includes essential elements of an attachment relationship (see Mallinckrodt, 2010 for review). Mallinckrodt (2010) states that the client-therapist relationship shares qualities with Mikulincer and Shaver's (2016) model of attachment relationships in that: (1) clients *seek proximity* to their therapists in times of distress through an emotional connection and regular sessions; (2) therapists serve as a *safe haven* for their clients; (3) therapists provide a *secure base* for their clients to explore their painful thoughts, memories, and affects; and (4) clients experience *separation anxiety* near termination of therapy. Mallinckrodt (2010) adds (5) that clients view their therapists as *stronger and wiser*, that is, as someone able to provide protection and guidance. Parish and Eagle's (2003a) model of attachment relationships includes four additional aspects of attachment: (6) *particularity* in the sense that the therapeutic relationship is unique, and irreplaceable; (7) *strong feelings* including both positive and negative emotions that fluctuate throughout the process of therapy; (8) the therapist has *responsiveness* to the clients emotional needs; and (9) the client has an internalized *mental representation* of the therapist they can conjure up for support when in distress. Parish and Eagle (2003a; 2003b) found evidence that clients ratings of a primary attachment figure and of their

therapist on these qualities (indicated by CAQ-T ratings) resembled one another,

further supporting the notion of therapist as attachment figure.

The Secure Base and Therapeutic Change

Bowlby (1988) specifically emphasized the importance of the therapist as a

secure base and hypothesized that such security was essential to therapeutic change.

Bowlby (1988) hypothesized that therapists can provide opportunities for this kind of

change by developing secure relationships with clients, who can then explore their

maladaptive inner working models. He outlined the therapeutic process in 5 tasks: (1)

the provision of a secure base for exploration of painful affects and memories; (2) to

help the client to explore how they relate to significant others and how their models

of self and other contribute to challenges in their relationships; (3) to help the client to

examine the therapeutic relationship and how the client applies their models of self

and other to it; (4) to help the client explore how early experiences have contributed

to their inner working models; (5) to help the client understand the source of their

models of self and other as "not unreasonable products of [their] past experience…

and thus to feel free to imagine alternatives better fitted to [their] current life"

(Bowlby, 1988, p. 95). This poses the secure base as a pre-requisite for successful

therapy. However, Bowlby (1988) stated that these tasks are interrelated, and that

therapy can't begin "unless a therapist can enable his patient to feel *some measure* of

security" (p.139). In this sense, the requirement is only good enough security, not a

perfect secure base at the outset of therapy. Dozier and Tyrell (1998) suggest that

establishing a secure base may be very difficult at first, and that clients may have to

explore their inner working models and make adjustments to how they relate to the

therapist *before* they can establish a secure base. Relatedly, the broaden-and-build cycle of security suggests that the motivation and propensity to rely on others in a secure manner develops through a repetitive cycle of appraising a close other as available, and then having ones needs met, which leads to positive affect and well-being, reinforcing secure attachment strategies (Mikulincer & Shaver, 2016). From an interpersonal lens, the *process* of forming a secure relationship is thought to help the client develop healthier, more functional interpersonal patterns or social competencies (Mallinckrodt, 2000; Mallinckrodt, 2010; Teyber & Teyber, 2017). For clients with insecure attachment patterns, it could be challenging to establish a secure bond, and doing so would require time. Indeed, secure client attachment to therapist has been positively correlated with length of treatment (Woodhouse et al., 2003). These theoretical views suggest that the attachment to the therapist in successful psychotherapy is one that changes and develops over time.

Recent theory and research have illustrated what a shifting therapeutic attachment relationship entails. The Therapeutic Gratification, Relief, Anxiety, Frustration (T-GRAF) model is a treatment approached based on providing an attachment relationship that is tailored and adjusted to the client's attachment strategies (Daly & Mallinckrodt, 2009; Mallinckrodt, 2010; Mallinckrodt, Choi, & Daly, 2015). Mallinckrodt (2010) states that a "corrective emotional experience is fostered not by one attachment relationship offered by the therapist, but rather by many relationships tailored to meet the client's needs through the changing phases of therapy" (p. 266). This changing attachment relationship is described in terms of *therapeutic distance,* defined as the degree of "transparency and disclosure in the

psychotherapy relationship from both client and therapist, together with the immediacy, intimacy, and emotional intensity of a session" (Mallinckrodt, 2010, p. 266). In the first phase of therapy, the therapist matches the client's specific attachment strategies, and later increases or decreases the therapeutic distance to an appropriate level for a corrective experience. For example, with an avoidant client who uses deactivating strategies, the therapist would first agree to those strategies by maintaining high therapeutic distance, and then gradually decrease distance, providing an increased experience of closeness and intimacy. The increased closeness may create discomfort for the avoidant client, but it also provides an opportunity for the client to revise their negative inner working models. Mallinckrodt et al. (2015) developed a measure of therapeutic distance and found support that clients with avoidant attachment style who ended treatment with high secure attachment to the therapist (indicated by the CATS) became more engaged in their relationship with the therapist, suggesting a corrective experience. This study did not investigate relationship to outcomes or examine changes in attachment to the therapist directly.

Lilliengren (2014) developed a process model based on studies of psychoanalytic treatment (Lilliengren et al., 2015; Lilliengren & Webart, 2005; Lilliengren & Webart, 2010) that builds on Mikulincer and Shavers (2016) theory of adult attachment dynamics. Lilliengren (2014) theorized that attachment security is developed in psychotherapy through the *broaden-and-build cycle of attachment security*. This cycle includes the client opening up in treatment, which can lead to a corrective emotional experience by receiving the therapist's support in a way the client has not received in previous relationships. This leads to increased secure

attachment to the therapist, deeper exploration in session, and then an increased capacity for mentalization. This is followed by the clients increased agency and self-efficacy which contributes corrective experiences outside of therapy and then a reduction in symptoms. This cyclical process provides an explanation for how a client's secure attachment to the therapist can increase, contributing to other curative factors, and to the client's improved attachment security. Lilliengren (2014) alternatively describes a model for how attachment insecurity is maintained in therapy called the *react-and-disconnect cycle of attachment insecurity maintenance*. In this negative cycle, a client's negative reactions to a specific element of therapy lead to the client employing insecure attachment strategies (i.e., hyperactivation or deactivation). This may elicit the therapist's countertransference and lead the therapist to more rigidly adhere to their technique. This leads to disconnection in the therapeutic process, maintenance of the client's symptoms, and continued reliance on insecure strategies. Lilliengren (2014) notes that more research is needed to create a definitive model.

There has been little research on how the attachment to the therapist develops over time and its relationship to outcome. Theoretically, if a client is able to revise their inner working models, change in attachment style is a logical outcome. Although adult attachment style is thought to be relatively stable, as demonstrated by meta-analytic findings (Fraley, 2002), recent evidence suggests that attachment style does change as a result of therapy (Taylor, Rietzschel, Danquah, & Berry, 2015). In a research synthesis, Taylor et al. (2015) found that client's attachment security increases and attachment anxiety decreases after psychotherapy. Evidence was

unclear regarding changes in avoidant attachment style, and one study in the review found an increase in avoidance. Additionally, some evidence has supported the therapeutic value of a secure attachment to the therapist for client's with insecure attachment style. Mallinckrodt et al. (2017) found that clients with avoidant attachment style pre-therapy who developed secure attachment to their therapist reported more reductions in symptoms related to interpersonal relationships (indicated by scores on the OQ-45 interpersonal relationships subscale). Together, this evidence suggests that a secure attachment to the therapist contributes to improvements in symptoms for clients with an insecure attachment style, and supports Bowlby's (1988) conception of the therapeutic relationship and the tasks of psychotherapy. More research is needed to understand the process by which the attachment relationship with the therapist contributes to such outcomes.

Client Attachment to Therapist and Psychotherapy Process

Studies of client attachment to therapist and the psychotherapy process have mainly tested Bowlby's (1988) secure base hypothesis and related processes, like client crying and transference reactions. In a sample of 38 clients in time-limited therapy at a university counseling center, Mallinckrodt et al. (2005) found evidence that clients who reported a more secure attachment to their therapist on the CATS was associated with greater in session exploration (measured with a composite score of the depth and smoothness subscales on the Session Evaluation Questionnaire; SEQ; Stiles & Snow, 1984a, 1984b). In complement to this, they found a negative association between avoidant attachment to the therapist and session exploration. Romano et al. (2008) also tested the secure base hypothesis in a sample of 59

volunteer clients and therapists, and found a similar association that a secure attachment to the therapist predicted greater client-rated session depth. Interestingly, Mallinckrodt et al. (2005) found that the association between secure attachment to the therapist and better exploration was not explained by the client's global attachment security, or by the quality of the working alliance, but by the client attachment to therapist alone. As well, Janzen et al. (2008) examined bi-variate correlations of global attachment and client attachment to therapist with measures of session impact. They found that attachment to the therapist (and not global attachment style) predicted greater in session exploration as measured by the task subscale of the Session Impact Scale (SIS; Elliot & Wexler, 1994). This, taken with Mallinckrodt et al.'s (2005) findings, suggest that the client's perception of improved in session exploration is uniquely influenced by their sense of security within the therapeutic relationship. In other words, the secure base phenomena in psychotherapy is not simply a product of the client's global attachment style, but the result of something unique to the attachment aspects of the therapeutic relationship (Mikulincer & Shaver, 2016).

Additional support for the secure base hypothesis is found in the study of other important processes, such as transference (Woodhouse et al., 2003), self-disclosure (Saypol & Farber, 2010), and crying (Robinson et al., 2015). Robinson et al. (2015) used mixed-methods to examine the relationship between frequency and type of crying with both client's attachment style (indicated by the ECRS) and client attachment to therapist (indicated by the CATS) in a sample of 40 clients in psychodynamic therapy with 14 doctoral trainee therapists. Between-therapist results

found that therapist's whose caseload reported insecure attachments to that therapist on average had clients who cried less, while therapist's whose caseload reported secure attachment to that therapist on average had clients who cried more often and with greater protest (an attempt to avoid or deny a loss). Between-client results found that clients who reported both secure and avoidant attachment to their therapist cried less often, while clients with a preoccupied attachment to the therapist cried more often. In their analysis of global attachment style, client's with high attachment avoidance cried more at the beginning of therapy and less overtime, suggesting that clients perhaps were testing the responsiveness of their therapist early on. Client's with high attachment anxiety cried with both more protest and inhibition (an attempt to hold back tears) early in therapy, but then decreased over time.

In a sample of 51 client-therapist dyads in psychodynamic treatment, Woodhouse et al. (2003) studied the relationship between client attachment to therapist and the amount and quality of client transference. Transference can be defined as "a distortion of the present person of the therapist on the basis of the client's earlier experiences with significant others" (p. 397). The concept of transference runs parallel to attachment theory in the sense that an individual's inner working models of self and other, developed in early attachment relationships, can be applied to others in inappropriate, maladaptive ways. Their analysis using the CATS, found that client-rated secure and preoccupied attachment to the therapist was positively associated with amount and negativity of transference, as rated by the therapist. Avoidant attachment to therapist was not associated with quality of transference and had only a small positive association with amount of transference.

Increased exploration of negative transference reactions in the presence of a secure

therapeutic relationship supports the secure base hypothesis and is also aligned with

Bowlby's (1988) therapeutic task to explore how the clients inner working models are

applied to the therapeutic relationship. Saypol and Farber (2010) investigated the how

client attachment to the therapist relates to the client's feelings after self-disclosure in

a sample of 117 adult clients using the RQ-T and the CAQ-T. They found that clients

with greater secure attachment to their therapist experienced fewer unpleasant

feelings, and greater positive feelings, after a making a self-disclosure. Fearful

attachment to therapist was positively associated with more unpleasant feelings

before and after a disclosure. Yotsidi et al. (2018b) examined client resistance and

attachment to the therapist (indicated by the CATS) in a sample of 46 clients and 19

therapists, and found that clients with a secure attachment to their therapist were more

collaborative early in treatment and exhibited less resistance throughout treatment,

while clients with avoidant-fearful attachment exhibited more resistance. These

findings further corroborate the evidence for the secure base hypothesis, suggesting

that clients with a secure attachment to their therapist are more comfortably able to

engage in the therapeutic relationship, share about themselves, and explore their

concerns.

　　　　Client attachment to the therapist has also been linked to other aspects of the

therapeutic relationship. Several studies have shown that there is an association

between the working alliance and client attachment to therapist (Bachelor, Meunier,

Laverdiere, & Gamache, 2010; Mallinckrodt, King, & Coble, 1998; Mallinckrodt et

al., 2005, 2015; Romano et al., 2008; Sauer et al., 2010). Meta-analysis of research

examining the CATS and alliance shows a strong positive association between secure attachment to the therapist and working alliance, and a strong negative association between avoidant attachment to the therapist and the working alliance (Mallinckrodt & Jeong, 2015). Lilliengren et al. (2015) found a significant, positive association between the alliance and secure attachment to the therapist that was considerably smaller when using the PAT-RS to measure attachment to the therapist, suggesting some of the high correlation is due to self-report method-bias. Moore and Gelso (2011) examined client attachment to the therapist and the real relationship, defined as the "personal relationship existing between two or more people as reflected in the degree to which each is genuine with the other, and perceives and experiences the other in ways that befit the other" (Gelso, 2009, p. 254–255). They found that clients with more secure attachment to their therapist were more likely to recall the real relationship with their therapist as positive. These studies show that attachment to the therapist is important to other aspects of the therapeutic relationship, and that secure attachment to the therapist is a key factor in developing a positive, collaborative relationship.

The research linking client attachment to therapist with psychotherapy process and other relationship factors demonstrate the importance of the therapist as a secure base. These studies highlight how the attachment aspects of the relationship influence a variety of in session processes in a way that is unique to constructs like the working alliance and global attachment style. A relationship between the client attachment to therapist and psychotherapy outcome is implied in the findings that the quality of the relationship can improve or hinder psychotherapy processes. More research is needed

to examine the complex pathways through which attachment style, in session processes, attachment to the therapist, and other aspects of the relationship (i.e., working alliance and real-relationship) influence one another, and how they contribute to treatment outcomes.

Client Attachment to Therapist and Psychotherapy Outcome

A small body of research has examined the relationship between client's attachment to their therapist and psychotherapy outcome, demonstrating that secure attachment to the therapist is related to improved outcomes and insecure attachment to the therapist to poorer outcomes (Lilliengren et al., 2015; Mallinckrodt et al., 2017; Petrowski et al., 2013; Sauer et al., 2010; Wiseman & Tishby, 2014). In a longitudinal study, Sauer et al. found that university counseling center clients (N = 93) who reported a more secure attachment to their therapist at session 3 of therapy (as indicated by scores on the CATS) reported greater improvements in psychological distress (as indicated by change in OQ-45 scores). While a strength of this study was the use of two-level Hierarchical Linear Modeling (HLM) to handle multilevel, longitudinal data, the procedures to maintain confidentiality did not include coding for therapists in order to account for within-therapist nesting. Additionally, the CATS was only administered once. Without multiple measurements of client attachment to the therapist, the association between change in client attachment to therapist and treatment outcome cannot be assessed.

In a sample of 67 clients and 27 therapists, Wiseman & Tishby (2014) used a repeated-measures, longitudinal design to assess the relationship between client attachment to therapist and psychological distress over the course of 32 sessions of

psychodynamic psychotherapy. The OQ-45 was administered at intake, and sessions 5, 15, 28, and 32, and the CATS was administered at sessions 5, 15, 28. The researchers then correlated variables at each time point and found that greater distress at session 5 was significantly associated with higher *preoccupied* client attachment to therapist, and greater distress at session 15 was significantly associated with both greater *avoidant* and *preoccupied* client attachment to therapist. There were no associations between CATS and OQ scores at session 28. These results show that the client's attachment to therapist may be more or less important over the course of therapy, but they do not speak to how change in attachment to therapist relates to change in symptoms. They did however examine how client attachment to therapist predicted change in psychological distress. Lower *avoidant* client attachment to therapist at session 5 predicted greater improvements from intake to session 32, however, this finding was not stable: when controlling for change in symptoms from intake to session 5, the result was no longer significant. There was no evidence that *secure* or *preoccupied* attachment to therapist predicted symptom change. The authors speculated that their findings may have differed from Sauer et al.'s finding that *secure* CATS scores predicted improvements due to differences in timing of measures and treatment length.

Two studies have examined how CATS at termination rather than during treatment predicts outcomes. As part of a larger study of therapist attachment style and client attachment to the therapist, Petrowski et al. (2013) examined correlations between symptom levels at intake, measured with the Symptom Check List 90-R (SCL-90-R; Franke, 1995) and attachment to therapist measured with the CATS at

termination in a sample of 429 clients and 22 therapists with a variety of orientations (psychodynamic, cognitive-behavioral, or family systems). Severity of symptoms at intake correlated significantly with scores on all subscales of the CATS. Lower symptoms at intake were related to greater *secure* attachment to the therapist, and higher symptoms at intake were related to greater *avoidant* and *preoccupied* attachment to the therapist. Petrowsky et al. suggested that this may mean that symptom reduction can increase secure attachment to the therapist. Similarly, Lilliengren et al. (2015) used the PAT-RS to assess client attachment to therapist at termination in a sample of 70 young adults in psychoanalytic therapy. They found that a secure attachment to the therapist predicted improvements in symptoms, global functioning, interpersonal problems, and continued improvements in functioning post-treatment. While these results support a connection between symptom levels and attachment to the therapist, the direction of causality is unclear as a result of single measurements.

Importantly, Mallinckrodt et al. (2017) conducted a meta-analysis of 5 studies (N = 418 clients) which found significant associations between each of the CATS subscales and psychological distress levels. Using weighted mean effect sizes, Mallinckrodt et al. demonstrated that decreased psychological distress was significantly associated with higher *secure* CATS scores ($r = .27$), with lower *avoidant-fearful* CATS scores ($r = -.27$) and with lower *preoccupied-merger* CATS scores ($r = -1.92$). This meta-analysis included the data from the above summarized studies (Petrowski et al., 2013; Sauer et al., 2010; Wiseman & Tishby, 2014) and data from an additional two studies that used the CATS and collected (but did not analyze)

outcome data (Mallinckrodt et al., 2005; Mallinckrodt et al., 2015). All studies in the meta-analysis measured psychological distress with the OQ-45 except for Petrowski et al., which utilized the SCL-90-R. While the small sample of studies does warrant caution and calls for additional research, such as the proposed study, the consistent link between each subscale of the CATS and outcome is promising.

Change in Client Attachment to Therapist: A Gap in the Literature

Despite the ample theoretical basis for the process of developing a secure attachment to the therapist as a mechanism of change and the link between attachment to therapist and outcome, no research has investigated the relationship between such changes and outcome. In fact, very few repeated measures studies of the client attachment to therapist have been conducted (Janzen, Fitzpatrick, & Drapeau, 2008; Mallinckrodt et al., 2015; Wiseman & Tishby, 2014; Yotsidi et al., 2018b). Only one of these studies examined changes in the client's attachment to the therapist, but as an outcome variable. Janzen and colleagues (2008) investigated how client-identified relationship building incidents influenced changes in client attachment to therapist in a sample of 30 volunteer undergraduate clients and 28 trainee therapists. The CATS was administered after sessions 1 through 4, and clients were asked to identify a relationship building incident in one of the sessions. Due to high, negative correlations between secure and avoidant-fearful CATS scores, Janzen et al. (2008) subtracted avoidant-fearful scores from secure scores to generate a secure attachment to the therapist indicator. Using a repeated measures ANOVA, the researchers found that secure attachment to the therapist increased significantly in the session with the relationship building incident, compared to sessions beforehand. No

evidence was found that preoccupied-merger attachment to the therapist changed. It could be that a client with preoccupied attachment to their therapist requires more time in treatment to develop a secure attachment to their therapist, and this study examined a short, early period of time (the first four sessions). Even the authors reasoned that "three sessions would be insufficient for an attachment to therapist to develop" (p. 386). While these findings support the notion that a secure attachment to the therapist does develop, there is currently no evidence of such changes leading to outcome. Furthermore, the studies that have linked attachment to the therapist with outcome have not adequately addressed the temporal sequence of the relationship. Researchers have recognized and called for more repeated measures studies of client attachment to the therapist for these reasons (e.g., Lilliengren et al., 2015; Wiseman & Tishby, 2014).

Summary and Conclusion

The study of attachment theory in psychotherapy has contributed a wealth of knowledge to how clinicians and researchers understand personality development, the therapeutic relationship, and the process of change in psychotherapy. Considerable work has examined the role of adult attachment style and has found that both client and therapist secure attachment style contributes to the development of collaborative therapeutic relationships and leads to positive outcomes in psychotherapy. Conversely, attachment insecurity may inhibit the therapeutic process. This highlights the importance of clinicians understanding and working with their client's attachment style (Levy et al., 2011). Recent theorists have built on Bowlby's (1988) theory of the therapist as an attachment figure and emphasize the importance of the developmental

process of a secure attachment to the therapist (Lilliengren, 2014; Mallinckrodt, 2010). Research investigating the role of the client's attachment to the therapist has advanced the theory of attachment in psychotherapy practice by investigating the relationship between attachment to the therapist and in session processes (e.g., session depth and smoothness, transference, self-disclosure), relationship factors (e.g., working alliance, real-relationship), and therapy outcomes. The literature has found a significant association between attachment to the therapist and psychotherapy outcomes, indicating that a secure attachment to the therapist is associated with improved outcomes and insecure attachment to the therapist with poorer outcomes (Mallinckrodt, 2017). Important gaps remain in the study of the therapeutic attachment relationship, one of which is examining how the client's attachment to the therapist develops over time, and how changes in the attachment aspects of the therapeutic relationship predict outcomes. Additionally, research should investigate how attachment style, working alliance, and attachment to the therapist comprehensively influence one another. Large sample sizes, longitudinal data, and advanced statistical methods such as Structural Equation Modeling (SEM; Kline, 2016) would be necessary for this research.

Appendix A: Measures

Table A1
Client Attachment to Therapist Scale (CATS; Mallinckrodt et al., 1995)

Item No.	Item Text
	Secure subscale (14 items)
1[r]	I don't get enough emotional support from my counselor.
2	My counselor is sensitive to my needs.
5	My counselor is dependable.
8	I feel that somehow things will work out OK for me when I am with my counselor.
11[r]	My counselor isn't giving me enough attention.
14	When I show my feelings, my counselor responds in a helpful way.
17[r]	I don't know how to expect my counselor to react from session to session.
20	I can tell that my counselor enjoys working with me.
23[r]	I resent having to handle problems on my own when my counselor could be more helpful.
26	My counselor helps me to look closely at the frightening or troubling things that have happened to me.
29	My counselor is a comforting presence to me when I am upset.
32	I know my counselor will understand the things that bother me.
34	I feel sure that my counselor will be there if I really need her/him.
36	When I'm with my counselor, I feel I am his/her highest priority
	Avoidant-Fearful subscale (12 items)
3	I think my counselor disapproves of me.
6	Talking over my problems with my counselor makes me feel ashamed or foolish.
9[r]	I know I could tell my counselor anything and s/he would not reject me.
12	I don't like to share my feelings with my counselor.
15	I feel humiliated in my counseling sessions.
18	Sometimes I'm afraid that if I don't please my counselor, s/he will reject me.
21	I suspect my counselor probably isn't honest with me.
24	My counselor wants to know more about me than I am comfortable talking about.
27[r]	I feel safe with my counselor.
30	My counselor treats me more like a child than an adult.
33	It's hard for me to trust my counselor.
35	I'm not certain that my counselor is all that concerned about me.
	Preoccupied-Merger subscale (10 items)
4	I yearn to be "at one" with my counselor.
7	I wish my counselor could be with me on a daily basis.
10	I would like my counselor to feel closer to me.

13	I'd like to know more about my counselor as a person.
16	I think about calling my counselor at home.
19	I think about being my counselor's favorite client.
22	I wish there were a way I could spend more time with my counselor.
25	I wish I could do something for my counselor too.
28	I wish my counselor were not my counselor so that we could be friends.
31	I often wonder about my counselor's other clients.

Note. Instructions for the CATS read: "These statements refer to how you *currently* feel about your counselor. Please try to respond to every item using the scale below to indicate how much you agree or disagree with each statement." Items are rated on the following 6-point scale: 1 = *strongly disagree*, 2 = *somewhat disagree*, 3 = *slightly disagree*, 4 = *slightly agree*, 5 = *somewhat agree*, 6 = *strongly agree*. [r] indicates that item should be reverse scored (i.e., 6 = 1, 5 = 2, etc.) After reverse scoring, items are summed for each subscale.

Table A2

Outcome Questionnaire-45 (OQ-45; Lambert et al., 1996)

Item No.	Item Text
	Symptom Distress Subscale (25 items)
2	I tire quickly.
3	I feel no interest in things.
5	I blame myself for things.
6	I feel irritated.
8	I have thoughts of ending my life.
9	I feel weak.
10	I feel fearful.
11	After heavy drinking, I need a drink to get going the next morning.
13^r	I am a happy person.
15	I feel worthless.
22	I have difficulty concentrating.
23	I feel hopeless about the future.
24^r	I like myself.
25	Disturbing thoughts come to my mind that I cannot get rid of.
27	I have an upset stomach.
29	My heart pounds too much.
31^r	I am satisfied with my life.
33	I feel that something bad is going to happen.
34	I have sore muscles.
35	I feel afraid of open spaces, driving, being on buses, subways, & so forth.
36	I feel nervous.
40	I feel something is wrong with my mind.
41	I have trouble falling asleep or staying asleep.
42	I feel blue.
45	I have headaches.
	Interpersonal Relationships subscale (11 items)
1^r	I get along well with others.
7	I feel unhappy in my marriage/significant relationship.
16	I am concerned about family troubles.
17	I have an unfulfilling sex life.
18	I feel lonely.
19	I have frequent arguments.
20^r	I feel loved and wanted.
26	I feel annoyed by people who criticize my drinking (or drug use).
30	I have trouble getting along with friends and close acquaintances.
37^r	I feel my love relationships are full and complete.
43^r	I am satisfied with my relationships with others.
	Social Role subscale (9 items)
4	I feel stressed at work/school.

12^r	I find my work/school satisfying.
14	I work/study too much.
21^r	I enjoy my spare time.
28	I am not working/studying as well as I used to.
32	I have trouble at work/school because of drinking or drug use.
38	I feel that I am not doing well at work/school.
39	I have too many disagreements at work/school.
44	I feel angry enough at work/school to do something I might regret.

Note. Instructions for the OQ-45 read: "Looking back over the last week, including today, help us understand how you have been feeling. Read each item below and mark the category which best describes your current situation. For this questionnaire, work is defined as employment, school, housework, volunteer work, and so forth." Items are rated on the following 5-point scale: 0 = *never*, 1 = *rarely*, 2 = *sometimes*, 3 = *frequently*, 4 = *almost always*. ^{r} indicates that item should be reverse scored (i.e., 4 = 0 and 3 = 1). After reverse scoring, items may be summed for each subscale, or all items may be summed for a total score of psychological distress.

Appendix B: Tables of Results

Table B1

Summary of Pearson Correlations, Means, and Standard Deviations for CATS, OQ-45, and Session Number

Measure	1	2	3	4	5
1. CATS Secure	—				
2. CATS Avoidant	-.73	—			
3. CATS Preoccupied	.06	.09	—		
4. OQ-45	-.32	.42	.01	—	
5. Session No.	.17	-.07	-.12	.02	—
M	5.27	1.66	2.44	72.06	31.90
SD	.61	.70	.83	25.22	31.85

Note. Pairwise deletion was used to handle missing data when running correlations and descriptive statistics; CATS = Client Attachment to Therapist Scale; OQ-45 = Outcome Questionnaire-45. Significance tests are not reported because the nested data makes significance levels invalid.

Table B2
Fixed Effects from the Multilevel Linear Growth Curve Models of CATS

Fixed Effect	Coefficient	SE	t	df	p
CATS Secure					
Secure intercept, γ_{000}	0.04	0.04	1.08	28	.290
Time-level (level-1) gamma coefficients					
Growth, γ_{100}	0.25	0.05	5.09	28	.000
CATS Avoidant-Fearful					
Avoidant-Fearful intercept, γ_{000}	-0.05	0.02	-2.17	28	.038
Time-level (level-1) gamma coefficients					
Growth, γ_{100}	-0.21	0.04	-5.40	28	.000
CATS Preoccupied-Merger					
Preoccupied-Merger intercept, γ_{000}	0.00	0.01	-0.19	28	.851
Time-level (level-1) gamma coefficients					
Growth, γ_{100}	-0.01	0.04	-0.27	28	.787

Note. Number of eight-session time periods = 661; number of clients = 112; and

number of therapists = 29; CATS = Client Attachment to Therapist Scale

Table B3

Random Effects from the Multilevel Linear Growth Curve Models of CATS

Random effect	SD	Variance component	Df	χ^2	p
CATS Secure					
Client-level (level-2)					
Estimated intercept for Secure, r_0	0.01	0.00	77	100.85	.035
Time-level Growth, r_1	0.27	0.08	77	179.06	.000
Therapist-level (level-3)					
Estimated intercept for Secure, u_{00}	0.01	0.00	28	48.94	.009
Time-level Growth, u_{10}	0.01	0.00	28	53.83	.003
CATS Avoidant-Fearful					
Client-level (level-2)					
Estimated intercept for Avoidant-Fearful, r_0	0.04	0.00	77	62.62	>.500
Time-level Growth, r_1	0.24	0.06	77	134.14	.000
Therapist-level (level-3)					
Estimated intercept for Avoidant-Fearful, u_{00}	0.00	0.00	28	29.65	.380
Time-level Growth, u_{10}	0.01	0.00	28	38.97	.081
CATS Preoccupied-Merger					
Client-level (level-2)					
Estimated intercept for Preoccupied-Merger, r_0	0.02	0.00	77	75.38	>.500
Time-level Growth, r_1	0.19	0.04	77	146.28	.000
Therapist-level (level-3)					
Estimated intercept for Preoccupied-Merger, u_{00}	0.00	0.00	28	19.18	>.500
Time-level Growth, u_{10}	0.01	0.00	28	35.42	.158

Note. Number of eight-session time periods = 661; number of clients = 112; and

number of therapists = 29; CATS = Client Attachment to Therapist Scale

Table B4
Fixed Effects from the Multilevel Linear Regression Model for CATS predicting OQ-45

Fixed Effect	Coefficient	*SE*	*t*	*df*	*p*
OQ-45 intercept, γ_{000}	-0.06	0.02	-2.32	25	.029
Time-level (level-1) gamma coefficients					
Session Number, γ_{100}	-0.13	0.08	-1.55	28	.133
CATS Secure, γ_{200}	-0.15	0.06	-2.64	28	.013
CATS Avoidant-Fearful, γ_{300}	-0.09	0.06	-1.36	28	.186
CATS Preoccupied-Merger, γ_{400}	-0.02	0.05	-0.36	28	.719
Client-level (level-2) gamma coefficients					
CATS Secure, γ_{010}	0.10	0.04	2.69	28	.012
CATS Avoidant-Fearful, γ_{020}	0.08	0.04	2.09	28	.046
CATS Preoccupied-Merger, γ_{030}	-0.02	0.02	-1.18	28	.249
Therapist-level (level-3) gamma coefficients					
CATS Secure, γ_{001}	-0.01	0.03	-0.46	25	.647
CATS Avoidant-Fearful, γ_{002}	-0.01	0.02	-0.32	25	.749
CATS Preoccupied-Merger, γ_{003}	-0.01	0.02	-0.58	25	.568

Note. Number of eight-session time periods = 549; number of clients = 112; and

number of therapists = 29; OQ-45 = Outcome Questionnaire-45; CATS = Client

Attachment to Therapist Scale

Table B5

Random Effects from the Multilevel Linear Regression Model for CATS predicting OQ-45

Random effect	SD	Variance component	Df	χ^2	p
Client-level (level-2) variance components					
Estimated intercept for OQ-45, r_0	0.02	0.00	—	—	—
Time-level Session Number, r_1	0.19	0.04	15	61.45	<.001
Time-level CATS Secure, r_2	0.23	0.05	15	53.37	<.001
Time-level CATS Avoidant, r_3	0.11	0.01	15	47.25	<.001
Time-level CATS Preoccupied, r_4	0.19	0.03	15	44.21	.008
Therapist-level (level-3) variance components					
Estimated intercept for OQ-45, u_{00}	0.05	0.00	10	14.83	.138
Client-level CATS Secure, u_{01}	0.04	0.00	13	5.09	>.500
Client-level CATS Avoidant, u_{02}	0.05	0.00	13	4.85	>.500
Client-level CATS Preoccupied, u_{03}	0.03	0.00	13	2.90	>.500
Time-level Session Number, u_{10}	0.22	0.05	13	33.83	.002
Time-level CATS Secure, u_{20}	0.02	0.00	13	11.77	>.500
Time-level CATS Avoidant, u_{30}	0.17	0.03	13	14.10	.366
Time-level CATS Preoccupied, u_{40}	0.04	0.00	13	10.67	>.500

Note. Number of eight-session time periods = 549; number of clients = 112; and

number of therapists = 29; OQ-45 = Outcome Questionnaire-45; CATS = Client

Attachment to Therapist Scale

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