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# Adult Attachment Style and the Therapeutic Alliance as Predictors of Premature Therapy Termination: A Retrospective Chart Review

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Adult Attachment Style and the Therapeutic Alliance as Predictors of Premature Therapy  
Termination: A Retrospective Chart Review

Joshua J. Green, PhD

University of Connecticut, 2019

Premature termination in psychotherapy is associated with negative consequences for clients, therapists, and the institutions that employ them, in the form of poorer mental health, diminished confidence, and lost revenue, respectively. Missed appointments in the form of late cancellations and no-shows exert similarly negative effects on client outcomes and treatment providers (Berrigan & Garfield 1981; Edlund et al., 2002; LaGanga & Lawrence, 2007; Oldham, Kellett, Miles, & Sheeran, 2012). Approximately one out of every five patient/clients in treatment will drop out of therapy before goals are met, regardless of treatment settings or intervention (Swift & Greenberg, 2012). The current study sought to explore relational variables – the therapeutic alliance and adult attachment style – as they relate to premature termination and missed appointments. A total of 110 case files, collected at a university training clinic over a period of 38 months, were consulted to determine rates of premature termination and missed appointments, as well as the relationships of these dispositions with alliance and attachment. The effects of attachment and alliance on premature termination could not be adequately tested due to missing data; missed appointment rate was analyzed instead. The results of regression analyses indicated that individuals who missed more sessions were more likely to prematurely terminate. Client-reported adult attachment style did not predict missed appointment rate; effects of client-reported alliance were confounded with a low sample size and positively skewed distribution and as such results were not conclusive. Implications and recommendations are suggested for future research.

PREMATURE TERMINATION IN PSYCHOTHERAPY

Adult Attachment Style and the Therapeutic Alliance as Predictors of Premature Therapy  
Termination: A Retrospective Chart Review

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A Dissertation

Submitted in Partial Fulfillment of the

Requirement for the Degree of

Doctor of Philosophy

At the

University of Connecticut

2019

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APPROVAL PAGE

Doctor of Philosophy Dissertation

Adult Attachment Style and the Therapeutic Alliance as Predictors of Premature Therapy

Termination: A Retrospective Chart Review

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2019

# PREMATURE TERMINATION IN PSYCHOTHERAPY

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*"If you want a happy ending, that depends, of course, on where you stop your story"*

- Orson Welles

### **Introduction**

People seek psychotherapy for many reasons: to address mental health concerns and symptoms, manage conflicts in close relationships, or better understand the problems they are having, for example. In many cases, their reasons for coming to therapy may be long-standing or otherwise difficult to address. In the ideal case, they seek psychotherapy with one or more goals in mind, which when fulfilled signal the end of therapy. Some clients, however, make a unilateral decision to drop out of therapy. Unfortunately, for researchers and clinicians alike, dropout is a common but poorly addressed mental health concern. Premature termination has a negative impact on mental health treatment outcomes and is associated with diminished treatment satisfaction (Swift & Greenberg, 2012; Swift, Greenberg, Tompkins, & Parkin, 2017). Given that the modal number of psychotherapy sessions is one (Connolly Gibbons et al., 2011) and that premature termination of therapy leads to poorer outcomes, understanding this event is important for the field.

Premature or unilateral termination, attrition, and dropout are all terms used to refer to the phenomenon of clients ending therapy before treatment goals are met or before time-limited treatment has ended. These terms are operationalized in different ways across different types of treatment research. Swift and Greenberg (2012) identified five ways that premature termination has been operationalized in the literature: failure to attend a minimum number of sessions; failure to complete a full treatment protocol; therapist judgment (by asking the therapist whether the client has prematurely terminated); a failure to attend a scheduled session without rescheduling or attending any future appointments; and, most recently (though not included in their meta-analysis), a failure to achieve clinically significant change (using self-report or other rating

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scales). Rates of premature termination differ significantly depending on the definitions that are used. A meta-analysis of 125 studies on this topic (Wierzbicki & Perkari, 1993) found dropout was lower when defined as failure to attend a scheduled session than when indicated by either therapist judgment or failing to meet a minimum number of sessions. Similarly, Swift and Greenberg, who included a fourth definition (i.e., failure to complete), found the highest rates of dropout (37.6%) when therapist judgment was the criterion; the lowest rates were found in studies defining dropout as a failure to complete or not meeting minimum number of sessions (18.4% and 18.3%, respectively). When defined as the failure to attend and reschedule, the rate was 24.4%; this latter definition was used in the current study as it allowed for the most reliable measure of premature termination that was possible with the data.

Swift and Greenberg (2012) also investigated dropout across a broad array of inpatient, outpatient, and research settings, and they reported that nearly 20% of psychotherapy clients terminate prematurely. Their thorough meta-analysis included treatment moderators (e.g., setting), client moderators and covariates (e.g., client diagnosis), therapist moderators (e.g., therapist experience), and research design moderators (e.g., dropout definition). They reported several significant moderators of dropout; dropout rates were highest for younger clients, those seen in university-based clinics, those with a personality or eating disorder, those seen by inexperienced clinicians, and those seen in settings where treatment was neither time-limited nor manualized. Interpersonal variables, such as the client's attachment style or the quality of the therapeutic alliance, were not included in their array of predictors; however, other research has found that relational factors between the therapist and client are important predictors of both outcome and dropout (Khazaie, Rezaie, Shahdipour, & Weaver, 2016; Mallinckrodt & Jeong,

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2015; Marmarosh et al., 2009; Sharf, Primavera, & Diener, 2010). One of the most common relational variables studied in psychotherapy research is the therapeutic alliance.

### **Therapeutic Alliance**

The concept of the therapeutic alliance has been defined in multiple ways since the birth of psychotherapy, resulting in varied conceptual formulations and measurement methods.

Generally speaking, therapeutic alliance refers to the rapport that forms between the therapist and client as a result of the interpersonal processes that occur in treatment which are theoretically independent of the interventions themselves (Elvins & Green, 2008). In a review of alliance measurement and formulation, Elvins and Green note that the history of the concept of the therapeutic alliance began with Freud in his discussion of *positive transference* (1912), in that it placed focus on the process between the therapist and client. Alliance became more similar to present day conceptualizations with the influence of Rogers in his emphasis on patient empathy, after which more formal and explicit definitions emerged when empirical testing became more common. As a result, there are several different but overlapping models of therapeutic alliance that have resulted in myriad psychometric scales, but which generally include aspects of the purpose of the therapy and the comfort of the therapist-client relationship. For example, Bordin (1979) defined alliance in terms of the treatment goal, task, and bond. One of the most common measures of alliance, the Working Alliance Inventory (Horvath & Greenberg, 1989), was designed to measure these three dimensions of alliance. Of the many conceptualizations, Elvins and Green highlighted the model put forth by Hougaard because he used empirical data to separate alliance into two factors: the personal relationship between therapist-client dyad and the treatment planning and goals of therapy (Hougaard, 1994). This two-part formulation overlaps significantly with Luborsky's model, which posited "Type 1 signs," the client's experience of the

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therapist as providing the help that is needed, and "Type 2 signs," the client's experience of treatment as a process of working together toward goals (Luborsky, 1976).

Typically, researchers measure alliance using self-report questionnaires, which pose questions either to the therapist, the client, or both at different points in therapy. As mentioned above, because of a lack of consensus on the construct, dozens of different scales exist based in similar, but varied theoretical assumptions. The questions in these scales reflect their theoretical grounding; for example, the "Penn alliance scales," which measure the constructs of Hougaard's and Luborsky's models, ask questions about agreement of treatment goals and their satisfaction with the therapeutic relationship. The measure used in the current study, the Helping Alliance questionnaire (Luborsky, 1976; Luborsky et al., 1996), is one such scale. Although there are many scales, some are much more commonly used than others; for example, the Working Alliance Inventory (Horvath & Greenberg, 1989), the California Psychotherapy Alliance Scales, (Marmar, Weiss, & Gaston, 1989) and the Helping Alliance questionnaires are among the most frequently tested in research.

One of the primary reasons for the in-depth focus on the construct of an alliance between therapist and client stems from the observations that it appears to be one of the most important variables in psychotherapy outcome (Elvins & Green, 2008; Horvath, Del Re, Flückiger, & Symonds, 2011; Horvath & Symonds, 1991; Priebe & McCabe, 2006). Meta-analyses have found modest but consistently positive associations between alliance and outcome with effect sizes ranging from  $r=.22$  to  $r=.28$  (Horvath et al., 2011; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). The finding that positive working alliance is associated with better treatment outcome seems to hold even in non-psychiatric settings, such as physical rehabilitation (Hall, Ferreira, Maher, Latimer, & Ferreira, 2010). Although there are challenges in both

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conceptualization and measurement of the alliance construct, researchers agree that alliance is both important and relevant to treatment research.

Some of the research on the relationship between therapeutic alliance and outcome points to early stages of therapy as a time when client-relational variables are most relevant (Horvath et al., 2011). In the early stages of treatment, both therapist and client relational variables influence how that relationship forms and develops. On the therapist side, this includes their skill at building rapport and their experience level (Horvath et al., 2011; Swift & Greenberg, 2015), their awareness and reactions to interpersonal processes (Teyber & Teyber, 2011), and their own attachment style (Mallinckrodt & Jeong, 2015). On the client side, attachment style may influence their initial appraisals of the therapist as well as the manner in which the therapeutic dynamic unfolds. In this way, clients who have difficulty forming relationships outside of therapy may have difficulty forming therapeutic ones. It follows that individuals who fail to form a positive therapeutic alliance may be less likely to agree on goals, or find therapy useful, and therefore more likely to discontinue and have poorer outcomes.

**Alliance and Dropout.** More research is needed to substantiate the hypothesis that if positive alliance is associated with positive outcomes, poor alliance might be associated with dropout. Much of the literature on alliance has excluded dropouts; dropout rates tend to be reported as a study limitation in the form of attrition. In one exception to this pattern, a small meta-analysis of 11 studies found a medium sized effect between working alliance and dropout with a mean weighted effect size of  $d = 0.55$ , equivalent to  $r = .27$  (Sharf et al., 2010). Although the rater of the alliance (i.e., client vs. therapist) differed across studies, this factor did not impact alliance ratings. Of these 11 studies, three were conducted in a university training clinic with college students, a similar setting to the current study. Of those three, two did not find any

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significant relationship between alliance and dropout; however, in a third study with a sample that included longer-term therapy (seen for a full semester), there was a significant effect of alliance on dropout, with a medium effect size of  $d = 0.44$ , equivalent to  $r = .22$ ;  $N = 109$  (Tryon & Kane, 1995). Overall, research suggests that a negative working alliance may lead to client dropout, but more thorough research is needed, particularly across treatment settings.

### **Attachment Theory**

If the relationship between the therapist and the client impacts dropout, the process of forming that relationship assumes similar importance. Attachment theory offers a powerful way to study this process. Attachment in psychology refers to a behavioral system promoting survival and well-being (Gillath, Karantzas, & Fraley, 2016). As individuals develop from infancy through adulthood, their repeated interpersonal experiences with significant others shape their mental representations of how to feel, think, and behave in future relationships. The system is most clearly observed in infants, but it persists throughout the life span. Newborns seek safety and support through various behaviors. For example, when an infant experiences hunger and begins to cry, that crying behavior elicits a response from a caregiver, which results in the alleviation of hunger. Over time, the infant learns behaviors that elicit responses which meet needs and reduce discomfort. The relational context in which these behaviors develop, including the responses they elicit from others, forms the basis for the attachment behavioral patterns.

Bowlby (1988) emphasized three criteria that characterize attachment systems from the child's perspective. These may be summarized as the "belief" that one a) can explore the environment and oneself, b) can engage with other people, and c) will be protected should a situation become scary or unsafe. A "secure" attachment relationship forms when a caregiver reliably meets these criteria and supports the developmental needs of the child. An unreliable,

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rejecting, or threatening caregiver causes a disrupted and more complex attachment relationship. These relationships are termed “insecure” (or, in more extreme cases, “disorganized”) and lead the child to develop alternative behavioral responses to obtain unmet needs. These alternative behaviors and feelings manifest as anxiety, fearfulness, dismissiveness, controlling behavior, and avoidance. Over time, the developing child internalizes relationship-based experiences as *Internal Working Models* of the self and other which guide their future behavior in relationships (Bowlby, 1982; Gillath et al., 2016).

Infant attachment behaviors were first categorized by Mary Ainsworth using extensive observational studies and then an experimental paradigm, the Strange Situation. She observed three different reactions to separation from their attachment figure in one-year-old infants. She labeled these *secure*, *avoidant*, and *resistant* attachment, and argued that infant behavior in response to the stress of separation reflected the influence of different internal working models developed from experience with a given caregiver. Meta-analyses and reviews of attachment have demonstrated both the utility of this model in understanding infant behavior across cultures<sup>1</sup>

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<sup>1</sup> Whereas attachment theory presumes a certain level of universality in that all humans form attachment bonds, some researchers have investigated individual differences in attachment with respect to parenting practices, expression of emotion, and in particular, the differences between collectivist versus individualist cultures (Gillath et al., 2016). Indeed, some have been critical of the cultural origins of attachment theory; for example, Keller (2013) opines that attachment theory is a “Western middle-class conception with the primary goal of individual psychological autonomy” (Keller, 2013 p.187). With regard to attachment in adults, moderating and mediating effects on attachment exert greater influence which allows a large space for speculation about the relationship between culture and attachment. Some research has found no cultural differences in prevalence rates of adult attachment styles (Doherty, Hatfield, Thompson, & Choo, 1994; van IJzendoorn & Bakermans-Kranenburg, 1996), whereas large, comprehensive studies ( $N > 17,804$ ; 62 cultural groups) have found different prevalence rates (Schmitt, 2008; Schmitt et al., 2004). For example, preoccupied attachment has been found to be more prevalent in East Asian countries, and dismissive attachment more common in Africa and Southeast Asia (Schmitt, 2008; Schmitt et al., 2004). Moving from prevalence of styles towards levels of anxiety and avoidance, research that has contrasted specific cultural groups has found mixed results. Some studies reported different rates of attachment avoidance and anxiety depending on cultural group, and many of these studies also investigate moderating and mediating variables, such as how strongly individuals identify with their cultural group (for more depth, see Gillath, et al., 2016). Overall, there are mixed results regarding cultural differences of adult attachment, and many researchers make assumptions about the effects of culture on attachment that are difficult to operationalize (e.g. that collectivist cultures may be less avoidant because it goes against the cultural norm of placing the needs of the group above the individual). More research that tests these assumptions is needed to determine the level of influence of culture on attachment.

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and the stability of attachment styles over the course of development (Fraley, 2002; McConnell & Moss, 2011; van IJzendoorn & Kroonenberg, 1988).

Parallel to the construct of internal working models in infancy, internal working models of attachment relationships have been reformulated as attachment "styles" based on individual's histories of close relationships for adulthood (Hazan & Shaver, 1987). Adult attachment styles thus refer to the generalized patterns of thought, emotion, and behavior associated with seeking support (Mikulincer, Shaver, & Berant, 2013). In contrast to early development, they are more richly developed, complex, and deeply internalized. They are thought to become activated and guide behavior in close relationships, including therapeutic ones. Indeed, Bowlby (1982, 1988) and others (e.g., Fonagy, 1998; Hughes, 2004) have argued that an individual's attachment style has significant implications for psychotherapy such that clients often present to therapy for issues that interact with or originate from their attachment style in a way that causes them distress and subsequently manifests in the therapeutic relationship (e.g., avoidant of intimacy). From this perspective, common responses to attachment disruption, such as sadness, anxiety, anger, and avoidance, are seen as behaviors intended to regain the attachment bond. Problems arise when this attachment goal is impossible or when support-seeking behaviors (e.g., self-harming behaviors or intense and long-standing sadness, anxiety, anger, isolation) cause impairment in functioning. For example, at the end of a close relationship, a person may experience the loss of safety, triggering depressive symptoms and help-seeking behavior. The attachment-informed therapist may account for these patterns and expectations and adjust their response accordingly. In training clinics where therapists are less experienced, they may inadvertently become a partner to difficult interpersonal processes or fail to adjust to their attachment presentation, leading to a

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greater likelihood of dropout (Mallinckrodt & Jeong, 2015). The relationship between the client and therapist is central to for client engagement in treatment and for change. Interpersonally oriented therapists would argue further that psychological distress develops in the context of important relational experiences (including the therapist-client relationship) and promotes the development of interpersonal behavior patterns that, while once adaptive may no longer serve clients (e.g., becoming very anxious may have promoted safety as a young child, but causes relationship "clinginess" as an adult). From this perspective, the interpersonal therapist explicitly discusses the developing relationship with the client. Interpersonal treatment models suggest that focusing on the client's behavioral and cognitive patterns in close relationships will lead to change in the client's internal working models of themselves and others (Teyber & McClure, 2010). Thus, observing a client's interpersonal behaviors and conceptualizing them in the context of attachment history may guide treatment and impact the formation of an alliance with the therapist. Attachment measures may help therapists facilitate client engagement.

Whereas early approaches to studying attachment in adults retained Ainsworth's trichotomous classification system (Hesse, 2008; van IJzendoorn, 1995), other models further refined the construct of attachment in adults by categorizing attachment along two continuous dimensions of anxiety and avoidance (Bartholomew & Horowitz, 1991). This conceptualization allowed for four attachment styles by categorizing individuals as high or low on anxiousness and avoidance: *secure (low on both)*, *preoccupied (high on anxiety)*, *dismissing-avoidant (high on avoidance)*, *fearful-avoidant (high on both)*. Although these styles are heuristically convenient and are theoretically consistent with the literature on attachment in children, they can be problematic in research because one loses data when in creating categories (e.g., what about individuals who report medium levels of attachment anxiety?). As such, leading researchers in

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attachment, including the authors of the measure used in the current study (Brennan, Clark, & Shaver, 1998), suggest that empirical investigations of attachment should measure it continuously (see Gillath et al., 2016). This is most commonly done by analyzing continuous dimensions of *anxiety* and *avoidance* or by collapsing these to a single bipolar dimension of *security* (as in Goldman & Anderson, 2007).

**Attachment and dropout.** If attachment avoidance and anxiety lead to difficulties in interpersonal functioning, one might expect those with high levels to dropout more frequently. For example, those with high attachment avoidance may be reluctant to engage in the intimate and vulnerable conversation that psychotherapy engenders. Likewise, those with high attachment anxiety may find psychotherapy uncomfortable and anxiety provoking. On the other hand, those with high anxiety may cling to their therapists. Empirically, limited research on the relationship between adult attachment and premature termination has reported mixed findings. One study, with a small, predominantly White, female sample ( $N=24$ ) found no relationship between attachment status and dropout (Goldman & Anderson, 2007). A second study ( $N=31$ ) conducted at a university counseling center found that attachment anxiety was positively associated with dropout; avoidance was not (Marmarosh et al., 2009). This latter study focused primarily on transference and an object-relations construct (i.e., the ‘real relationship’) and thus provided little information about attachment and dropout *per se*. Interestingly, they noted that participants who remained in therapy for at least three sessions, but dropped out later, had greater attachment anxiety than clients who continued in treatment. Unfortunately, the authors did not report whether there was a relationship between attachment and those who dropped out before the third session, likely because their sample size would have been very small. Indeed, both studies were underpowered, with a low sample size.

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Some additional theoretical clues may come from looking at the research on attachment and therapy outcome. For example, Sauer et al., (2010) investigated attachment, alliance and treatment outcome by analyzing responses to self-report questionnaires of 95 clients in a university-based training clinic, a setting very similar to the current study. They reported that higher levels of attachment anxiety were significantly associated with greater distress ratings at the beginning of therapy and they also reported that stronger alliance ratings were associated with secure attachment to the therapist. Perhaps then, if attachment anxiety relates to dropout, it may be moderated by distress; additionally, attachment may exert its influence on dropout through the working alliance with the therapist.

**Attachment and alliance.** The literature on the relationship between attachment style and alliance is somewhat larger, yet still lacks significant data about the relationship to premature termination. Some studies find that attachment anxiety is negatively correlated with alliance, but no relationship between avoidance and alliance; samples were  $N=40$  and  $N=79$  respectively (Kivlighan, Patton, & Foote, 1998; Marmarosh et al., 2009). A separate study found that one part of the avoidance dimension, the *Depend* sub-scale, predicted alliance, but not the other part of the avoidance dimension, the *Close* sub-scale. The *Anxious* sub-scale also did not predict alliance; sample was  $N=60$  (Satterfield & Lyddon, 1995). Other authors found *no* relationship between either attachment dimension and treatment alliance, in studies with sample sizes of 55 and 28 (Goldman & Anderson, 2007; Sauer, Lopez, & Gormley, 2003). For all of these studies, their modest sample sizes make it difficult to detect differences, particularly if they are small effects.

More recent reviews of this topic offer stronger support for the relationship between attachment and alliance. In a systematic review, Smith, Msetfi, and Golding (2010) analyzed

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studies that tested avoidance and anxiety scores, along with categorical secure vs. insecure attachment styles, as predictors of alliance with therapist. Of the 16 studies reviewed, 12 reported that greater self-reported secure attachment predicted a more positive working alliance. In addition, the association of secure attachment with positive working alliance held across different outpatient groups and settings, across different measures of alliance and attachment, and measured at different time points in the therapeutic process. When the anxiety and avoidance dimensions were considered separately, avoidance was found to be negatively associated with alliance, but only early in treatment; attachment anxiety was not consistently related to treatment alliance (Smith et al., 2010).

Diener and Monroe (2011) reviewed 17 studies and also found that greater attachment security was associated with stronger therapeutic alliance; likewise, greater attachment insecurity was associated with weaker alliance (with an average effect size of  $r=.17$ , considered small-medium). In contrast to findings in Smith, Msetfi and Golding's meta-analysis, client-rated alliance had a significantly stronger relationship with attachment compared with therapist-rated alliance (Diener & Monroe, 2011). Finally, Bernecker, Levy, and Ellison (2014) analyzed 24 studies, including 12 unpublished doctoral dissertations, and reported that *both* the anxious and avoidant dimensions of attachment were negatively correlated with alliance using client self-report for both variables. These authors reported a mean weighted  $r$  for attachment avoidance and anxiety with alliance of  $-.14$ , and  $-.12$ , respectively (small effects; Bernecker et al., 2014).

In sum, research on attachment style and therapeutic alliance suggests a modest, but significant, relationship between these two constructs. This literature sheds little light on the relationship between attachment, alliance, and dropout, because most studies have been underpowered, and most include only individuals who completed therapy. There may be

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important differences between premature terminators and those who complete therapy with regards to both attachment and alliance, and in the relationship of the two constructs to each other.

### **Current Study**

The current study investigates the relationships among client-rated adult attachment style, therapeutic alliance, and the likelihood of premature termination. Data were collected retrospectively through questionnaires and case files at a university-based clinic with trainee clinicians. I describe the sample by reporting the rate of premature termination, treatment usage (e.g. the average number of appointments and ratio of missed: scheduled appointments) and mean scores on attachment and alliance measures. Based on previous literature, I anticipated a premature termination rate between 20 and 30%. I also investigated socio-demographic predictors of premature termination, including age and education (Swift & Greenberg, 2012), comparing those individuals who ended therapy mutually with those who ended unilaterally.

I also formed two sets of exploratory hypotheses based on limited past research and clinical observations. **First**, regarding the relationships among alliance, attachment and premature termination, I predicted that: a.) Lower therapeutic alliance would be associated with an increased likelihood of premature termination; b.) Higher attachment avoidance would be associated with an increased likelihood of premature termination; and c.) Higher attachment anxiety would be associated with an increased likelihood of premature termination. **Second**, regarding the relationship between attachment and alliance, I predicted that: a.) Greater security of attachment would predict higher alliance scores; b.) Lower attachment avoidance would be associated with higher alliance scores; c.) Attachment anxiety would not be associated with

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alliance scores; and d.) Alliance would mediate the relationship between attachment security and premature termination.

### **Method**

#### **Data Collection**

Participant data were collected at the Psychological Services Clinic at the University of Connecticut. A waiver of informed consent was acquired, and all procedures were approved by the University of Connecticut Institutional Review Board. Participants routinely complete an initial packet of questionnaires at the time of intake and on a quarterly basis as part of their agreement for treatment. Questionnaires and clinical files completed between January 1, 2015 and March 30<sup>th</sup>, 2018 were included in the current analyses. Data were de-identified and entered into a password-protected database on a computer that was not connected to the internet and was accessible only to IRB-approved investigators.

**Participants.** Participants in this study were in therapy at the Psychological Services Clinic of the University of Connecticut. Each person worked with an individual therapist, sometimes for several years. Cases were sometimes transferred to other therapists when student therapists left the clinical service. The data from case files of a total of 110 individuals who received therapy services at the Clinic were included in the present study. Although the clinic serves the university and the surrounding community, a majority of the clients seen were college students; in the present study, roughly 60% of the sample were currently enrolled university students. The demographic characteristics of the sample are presented in Table 1. As shown in Table 1, the sample was primarily European-American college students under the age of 25 and majority female. Furthermore, based on written responses about their reason for seeking therapy

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services, the most frequent presenting problems were anxiety and mood-related complaints, such as depressive symptoms.

*Table 1: Demographic characteristics of the sample*

<b>Demographic Characteristics</b>	<b>n</b>	<b>%</b>
<b>Age (M=25.66, SD= 10.38)</b>		
25 or younger	80	73
Older than 25	30	27
<b>Gender</b>		
Female	66	60
Male	43	39
Other	1	1
<b>Ethnicity</b>		
African/African-American	5	5
Asian/Asian-American	13	12
European-American	65	59
Latino/a	8	7
More than one	3	3
No response	16	15
<b>Education Level</b>		
Graduate Degree	7	6
Bachelor's degree	15	14
Current college student	68	62
High school graduate	14	13
No response	6	5
<b>Psychiatric medication</b>	39	35
<b>History of psychiatric hospitalization</b>	11	10
<b>Presenting Problems*</b>		
Adjustment	6	5
Anxiety	49	45
Attentional	4	4
Interpersonal	22	20
Trauma	5	5
Mood	44	40
No response	23	21
Other	16	15

*\* Derived from hand-written responses by participants to the question: "Briefly describe what you see as the problem(s)." Total exceeds 100% due to participants reporting multiple presenting problems.*

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**Procedures.** As part of standard clinic procedure, clients were asked to complete an intake packet including a series of questionnaires used by therapists to inform clinical practice and treatment planning. Measures included demographics questions, a measure of adult attachment (The Revised Adult Attachment Scale, Close Relationships version) and open-ended questions about the presenting problem. If the clients continued in treatment, they were also asked to complete follow-up packets at quarterly intervals (approximately October 15th, January 15th, April 15th, and July 30th); a measure of therapeutic alliance (the Helping Alliance Questionnaire) was included in these quarterly reports.

### Measures

**Demographic variables.** Several demographic variables were recorded from case files: *Age at intake, gender, ethnicity, education level, and occupation. Medication use and history of psychiatric hospitalization* were each coded dichotomously (0/1) for any listed medications or hospitalizations.

**Treatment data.** *Termination status* was coded dichotomously from case files as "1" (ended treatment) or "0" (in on-going treatment at end of data collection as of March 30, 2018).

The following treatment information was also recorded from case files: *number of attended psychotherapy sessions, cancelled appointments, and missed appointments without notice ("no-shows")*. Finally, the hand-written responses to the open-ended question about presenting problem (*Briefly describe what you see as the problem(s)*) were recorded verbatim into the database. Responses to these questions were also categorized to provide descriptive data for the sample, shown in Table 1; many individuals reported multiple presenting problems such as symptoms of both anxiety and depression. Categories included *adjustment to college, anxiety, attentional, interpersonal, trauma-related and mood* problems, as well as the category *other* for

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less common or very specific problems (e.g., "anger management").

**Adult attachment style.** The Revised Adult Attachment Scale, Close Relationships Version (RAAS; Collins 1996) is an 18-item questionnaire that measures adult attachment style; see Appendix A. Participants are asked to respond to questions about how they "generally feel in important close relationships in [their] life" (Collins, 1996). The Revised Adult Attachment scale has been shown to have test–retest reliabilities of 70% over a four year period (Kirkpatrick & Hazan, 1994), and Cronbach’s alphas of .94 and .91 for the avoidance and anxiety dimensions, respectively (Brennan et al., 1998). This measure was chosen for its brevity, reliability, and flexibility, for its psychometric properties, and to align the current sample with many prior studies also utilizing this measure.

The measure, derived from Hazan and Shaver’s (1987) adult attachment descriptions, is scored by the participant on a 5-point Likert scale ranging from 1 (not at all characteristic of me) to 5 (very characteristic of me). In its original formulation, a factor analysis produced three subscales: *Close*, *Depend*, and *Anxiety*. *Close* refers to comfort with intimacy and emotional closeness (e.g., "I find it relatively easy to get close to people"). *Depend* refers to the extent to which one trusts and relies on others (e.g., "I am comfortable depending on others."). *Anxiety* refers to fears of rejection and abandonment (e.g., "I often worry that other people don't really love me."). Using these three subscales, respondents could be assigned to attachment style categories (e.g. secure, fearful, dismissing, preoccupied) based on scores from these three dimensions. Although this is theoretically satisfying, Collins (1996) suggest a more appropriate statistical approach is to measure continuous dimensions of attachment, and this has been widely adopted in attachment research (e.g., Brennan et al., 1998, Daniel, 2006; Fraley & Waller, 1998; Gillath et al., 2016).

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There are two primary methods of analyzing attachment. In a two-dimensional approach, one calculates the dimensions of Avoidance and Anxiety. The Anxiety subscale is a simple continuous dimension. The avoidance dimension is calculated based on responses averaged across the Close and Depend scales, with responses reverse-scored (low scores are associated with avoidant attachment). Supporting this approach, Brennan, Clark, and Shaver (1998) reported that the Anxiety dimension correlated with the anxiety dimension of other self-report attachment measures at  $r=.74$  (Brennan et al., 1998; Daniel, 2006). Thus, the present study analyzed attachment as a continuous measure of the anxiety and avoidance dimensions of attachment.

The second method involves a single continuous measure of attachment security. A strength here is its consistency with Bowlby's (1973) theories as well as its usefulness in research (Goldman & Anderson, 2007). In this method, first proposed by Allen, Huntoon and Evans (1999), a continuous measure of attachment security is created by summing the Close and Depend subscales and subtracting the Anxiety subscale; high scores on Close and Depend, combined with low scores on Anxiety, are associated with secure attachment.

The present study chose to analyze attachment dimensionally using both methods; Anxiety and Avoidance dimensions, for which higher scores indicate greater attachment avoidance and attachment anxiety, and a Security dimension, for which higher scores indicate greater attachment security. The minimum Security score is -3 (calculated from the minimum Close and Depend scores minus the maximum Anxiety score:  $1+1-5$ , respectively). The maximum Security is 9 ( $5+5-1$ , respectively). To simplify interpretation, 3 was added to all Security scores to create a 0-12 scale. In the current study, Security scores ranged from 3.17 to 11.67 with a mean of 6.70 ( $SD=2.17$ ,  $N=49$ ).

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**Therapeutic alliance.** The Revised Helping Alliance Questionnaire - Patient Version (HAQ-II) is a 19-item measure designed to measure the strength of the patient-therapist therapeutic alliance. Examples of items include “At times I distrust the therapist’s judgment” and “The therapist and I have meaningful exchanges.” These items are rated on a 1-6 Likert scale ranging from 1 (“Strongly Disagree”) to 6 (“Strongly Agree”). While there are over 30 different alliance measures in use, the Helping Alliance Questionnaire is considered one of the four "core measures" (Horvath et al., 2011). The questionnaire has demonstrated excellent internal consistency ( $r=.90$ ) and test-retest reliability ( $r=.78$ ), as well as good convergent validity ( $r=.59$  -  $.69$ ) with the California Psychotherapy Alliance Scale, another core measure of therapeutic alliance (Luborsky et al., 1996). This measure was selected for its strong psychometric qualities, common use in research, and brevity.

**Premature termination.** Premature termination, also called "dropout" in the present study, was defined as the failure to attend a scheduled session, followed by a failure to schedule or attend any further sessions. Cases which met this criterion were considered to have prematurely terminated therapy and were labeled "premature" or "unilateral terminators" depending on context. Cases in which individuals ended therapy by mutual agreement with the therapist were considered "mutual terminators." All cases that were still ongoing at study end were considered "on-going."

To determine the outcome of each case, termination summaries and progress notes were reviewed to determine whether the client failed to show for scheduled sessions and never returned. Progress notes provided sufficient information to make the categorization in most cases ( $n=107$ ). In three cases where these notes did not specify (10.34% of dropouts), the individual therapist was contacted. For example, in one case, the last progress note indicated a future

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session ("We will plan to meet next week at 7:00pm"); however, no future note was written. The therapist was contacted and reported verbally to the experimenter that "[the client] did not show for their scheduled session and did not return subsequent phone calls." This case was considered a premature terminator. In total, 29 out of 110 cases (26.4%) met this definition of dropout.

Several cases that initially met the criterion for premature termination were considered mutual terminators because their termination was due to circumstances unrelated to the therapeutic process, including moving away ( $n=4$ ) and discomfort with videotaping (standard procedure in the clinic;  $n=1$ ).

### Data Analysis

Figure 1 presents a flow chart of the data collection procedures. A total of 133 adult intakes were completed at the Psychological Services Clinic between January 1, 2015 and March 30th, 2018. Of this initial pool, 17 individuals never attended their first scheduled session. Six participants were excluded: three because they were past clients of the experimenter, two due to missing data, and one who did not meet age requirements (participants had to be 18 years or older per IRB requirements). This yielded 110 participants. Of these, 34 completed the attachment measure only, 13 completed the alliance measure only, 15 completed both, and 48 completed neither.

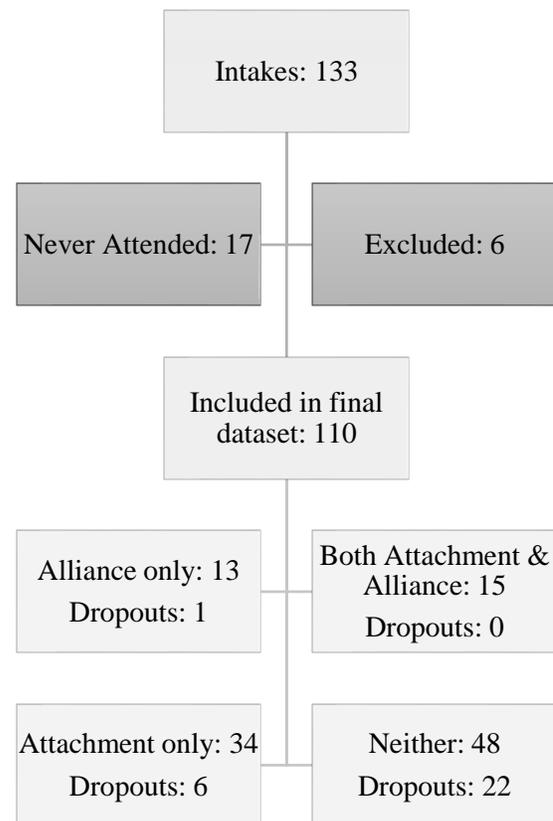


Figure 1: Data inclusion flow chart

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The attachment measure was introduced to clinical intake packets in September 1, 2016; thus, individuals who entered the clinic prior to this date did not complete this measure. The total number of participants who could have received completed it is  $n=75$ ; however, six participants attended only one session and thus never completed the intake packet. A total of 69 participants received the attachment measure; of these, 71% ( $n=49$ ) completed and returned the measure.

There were 29 participants who terminated prematurely (“dropouts”); six (21 %) completed the attachment measure, one (3%) completed the alliance measure, and 21 (76%) did not complete either. No dropouts completed both measures. At the end of the data collection timeframe, 65 (59%) clients had ended therapy (including planned and unplanned terminations) and 45 (41%) were still in therapy.

**Data management.** Due to the small number of alliance and attachment measures available for those premature terminators, a proxy measure for premature termination was calculated as ratio of missed sessions (cancelled sessions + no-show sessions) to scheduled sessions. “Missed appointment rate” was calculated across the entire sample, thus providing more power to detect differences. To test whether this rate was an appropriate proxy for premature termination, a logistic regression was conducted predicting termination status (dropout/non-dropout) from missed appointment rate. The result indicated that as the percentage of missed appointments increased, the likelihood of premature termination also increased,  $OR=1.07$ , 95%  $CI [1.04,1.11]$ ,  $p=0.001$ . Because the confidence interval of the odds ratio does not include one, the likelihood of this relationship is considered statistically significant. Missed appointment rate was highly positively skewed,  $Skew=1.43$ ,  $SE=1.54$ , and transformations did not help with normality. Therefore, in addition to conducting analyses with missed appointment

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rate as a continuous variable, I repeated all analyses on a median split of missed appointment rate.

Some individuals did not complete the required attachment measure; it was important to test whether those individuals differed on the outcome variable. The pool of participants who completed the attachment measure was compared to the participants who did not complete the measure on missed appointment rate. The results revealed that those who completed the attachment measure,  $M=10.83\%$ ,  $SD=14.22\%$ , missed sessions at about the same rate as those who did not complete the measure,  $M=15.11\%$ ,  $SD=19.26\%$ ,  $t(24.148)=-0.86$ ,  $p=0.40$ .

Finally, two participants inadvertently completed the intake packet twice, resulting in multiple scores on the attachment measure. In these cases, the initial packet scores were utilized to maintain consistency across the sample.

In sum, the original outcome of interest (premature termination) could not be used due to missing data. A proxy, missed appointment rate, was used in all subsequent analyses both as a continuous and as a dichotomized dependent variable to mitigate skewness.

**Planned analyses.** To characterize the sample, measures of central tendency for the rates of premature termination, missed appointment rate and scores on the study variables are reported. I also conducted a logistic regression to determine whether age and education predicted premature termination. All analyses were conducted using R statistical software (R Core Team, 2017) using the “psych” (Revelle, 2017), “plyr” (Wickham, 2011), and “sm” (Bowman & Azzalini, 2014) packages for R.

***Mutual vs. premature terminators.*** T-tests were used to compare participants who terminated therapy prematurely with those who terminated by mutual agreement with the

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therapist with respect to: number of sessions, missed appointment rate, demographic variables and mean scores on the study variables (alliance and attachment scores).

***Alliance, attachment, and missed appointments.*** To examine the relationships among alliance, attachment and missed appointment rate, regression analyses were conducted. These analyses were conducted twice: once with a continuous measure of missed appointment rate, and once with a dichotomized (median-split) measure of missed appointment rate. A simple linear regression was conducted regressing missed appointment rate (as a continuous measure) onto alliance scores; a second logistic regression was conducted predicting the dichotomized missed appointment rate. Attachment was analyzed in two ways which resulted in four equations: first, missed appointment rate as a continuous variable was regressed onto the continuous scores of Anxiety and Avoidance. Next, a logistic regression was conducted which regressed the dichotomized missed appointment rate onto scores of Anxiety and Avoidance. Similarly, missed appointment rate was regressed as a continuous variable onto Security using simple linear regression and as a dichotomous variable using logistic regression. These analyses were used to test the following exploratory hypotheses, as described above:

- a. Lower alliance will be associated with an increased missed appointment rate.
- b. Higher attachment avoidance will be associated with an increased missed appointment rate.
- c. Higher attachment anxiety will be associated with an increased missed appointment rate.
- d. Higher attachment security will be associated with decreased missed appointment rate.

***Attachment and alliance.*** Regression analyses were conducted to test for a relationship between alliance and attachment. Scores on the alliance measure were regressed onto Anxiety and Avoidance scores using two simple linear regressions. In addition, alliance scores were

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regressed onto the Security composite using simple linear regression. Analyses tested three predictions about the relationship between attachment and alliance:

- a. Attachment anxiety will not be associated with alliance scores.
- b. Lower attachment avoidance will be associated with higher alliance scores.
- c. Higher attachment security will be associated with higher alliance scores.

### Results

#### Premature Termination and Socio-Demographic Variables

The rate of premature termination was found to be 26.36% ( $n=29$ ). Specifically, 29 out of 110 clients did not show for a scheduled session and never returned. A logistic regression was conducted regressing premature termination onto socio-demographic variables; gender was dummy coded with 0=female and 1=male; education was dummy-coded trichotomously as 'High School'; 'College'; and '4-year degree or more' with the reference category '4-year degree or more'. Table 2 shows the results of the logistic regression, which revealed that neither age nor education level predicted the likelihood of premature termination.

*Table 2: Fixed effects on premature termination with socio-demographic variables*

	<b>Estimate</b>	<b>Std. Error</b>	<b>z value</b>	<b>Pr(&gt; z )</b>
(Intercept)	0.149	1.128	0.133	0.895
<b>Age</b>	0.019	0.032	0.597	0.550
<b>Gender: Male</b>	0.738	0.505	1.462	0.144
<b>Education: College</b>	0.053	0.651	0.081	0.935
<b>Education: High School</b>	1.590	1.151	1.379	0.168

#### Treatment Data for Overall Sample

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Table 3 shows treatment data for the overall sample. Overall, duration of treatment ranged widely, from as little as one session to 185. On average, individuals missed about 12% of their scheduled sessions and attended about 27; the modal number of attended sessions was four. Data for the number of scheduled, attended and missed sessions were strongly positively skewed: 70% of the sample attended fewer than 30 sessions and missed 15% or less ( $n=77$ ); 55% of the sample missed one session or less ( $n=60$ ).

*Table 3: Treatment data for entire sample*

<b>Treatment Data</b>	<b>Mean (SD)</b>	<b>SE</b>	<b>Mode</b>	<b>Range</b>	<b>n</b>	<b>%</b>	<b>Skew</b>
<b>Visits</b>							
Scheduled	29.90 (36.05)	3.44	6	1-185	110	100	2.10
Attended	26.75 (32.39)	3.09	4	1-164	110	100	1.98
Cancelled	2.17 (3.70)	0.35	0	0-22	110	100	2.90
No shows	0.98 (2.01)	0.19	0	0-11	110	100	3.02
<b>Missed apt. rate (%)</b>	12.39 (16.19)	1.54	0.00	0-66.67	110	100	1.43
<b>Attachment</b>							
Anxiety	2.89 (0.95)	0.13	3.00	1-5	49	71	-0.07
Avoidance	2.71 (0.78)	0.11	3.17	1.08-4.08	49	71	-0.26
Security	6.70 (2.15)	0.30	6.00	3.17-11.67	49	71	0.21
<b>Therapeutic Alliance</b>	5.38 (0.48)	0.09	5.74	4.05-6.00	28	25	-0.65

\*Percentage out of  $n=69$ ; the total number given the attachment measure (see section on Data Analysis)

### Mutual vs. Premature Terminators

I compared individuals who ended mutually with those who ended prematurely. As shown in Table 4, individuals who prematurely terminated attended significantly fewer sessions,  $t(39.48)=5.81, p=.01$ , cancelled more,  $t(50.84)=1.96, p=.06$ , and had a higher percentage of missed scheduled sessions,  $t(33.40) = -4.58, p=.01$ ; 26% vs. 7%, respectively. There were no differences between groups on number of no-shows, attachment scores, or mean age. Level of education and alliance scores were not compared due to low sample size.

*Table 4: Treatment data between mutual and premature terminators*

<b>Treatment Data</b>	<b>Mutual</b>		<b>Premature</b>				
	<b>Mean (SD)</b>	<b>n</b>	<b>Mean (SD)</b>	<b>n</b>	<b>t</b>	<b>df</b>	<b>p</b>
<b>Appointments</b>							

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Scheduled	46.35 (40.99)	37	8.59 (9.12)	29	5.44	40.49	0.01
Attended	42.32 (36.76)	37	6.34 (7.19)	29	5.81	39.48	0.01
Cancelled	3.03 (4.13)	37	1.55 (1.74)	29	1.96	50.84	0.06
No shows	1 (2.07)	37	0.69 (1.74)	29	0.79	56.4	0.43
<b>MAR* (%)</b>	6.92 (7.47)	37	25.83 (21.26)	29	-4.58	33.4	0.01
<b>Attachment</b>							
Anxiety	2.82 (.96)	12	2.83 (.75)	6	-0.03	12.6	0.97
Avoidance	2.32 (.80)	12	2.36 (.58)	6	-0.13	13.5	0.90
Security	4.54 (2.11)	12	4.44 (1.36)	6	0.12	14.7	0.91
<b>Alliance</b>	5.55 (.44)	12	5.05	1	-	-	-
<b>Age</b>	25.32 (9.10)	37	23.81 (6.62)	29	0.78	64	0.45
		<b>n (%)</b>			<b>n (%)</b>		
<b>Education</b>							
≥ 4-year College Degree	9 (24%)		6 (21%)				
College student	19 (51%)		20 (69%)				
≤ High school	7 (19%)		1 (3%)				
No response	2 (5%)		2 (7%)				

\*MAR = Missed appointment rate, calculated as: (Cancelled + No shows)/Scheduled

**Alliance, Attachment and Missed Appointments**

**Alliance and missed appointment rate.** A simple linear regression was calculated to predict missed appointment rate based on alliance score. The regression equation trended toward significance,  $F(1, 26) = 3.46, p=0.07, R^2 = 0.12$ , suggesting that 12% of the variability in missed appointment rate may be explained by alliance score. To further explore this trend, regression diagnostics were performed. Regression diagnostics revealed one highly influential data point (Cook's distance = 1.0). After removal of this outlier, the regression equation no longer trended toward significance,  $F(1,25) = 0.23, p=0.64, R^2 = 0.01$ . This relationship was also tested with missed appointment rate as a dichotomized (median-split) outcome variable using logistic regression; the result revealed that alliance scores did not significantly predict the likelihood of missing appointments,  $OR=.45, 95\%CI [.09,2.30]$ .

**Attachment and missed appointment rate.** Three simple linear regressions were calculated to predict missed appointment rate based on attachment anxiety, avoidance and

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security scores. The results of all three tests revealed no significant influence of attachment scores: Anxiety,  $F(1,47)=.27, p=.61, R^2=.01$ ; Avoidance,  $F(1,47) = .17, p=.68, R^2=.004$ ; Security,  $F(1,47)=.26, p=.62, R^2=.01$ . In addition, three logistic regressions were conducted to predict a dichotomized (median-split) missed appointment rate from attachment anxiety, avoidance and security were performed: the results revealed no influence of attachment on the likelihood of missing appointments: Anxiety,  $OR=1.59, 95\%CI [.84,2.99]$ ; Avoidance,  $OR=1.28, 95\%CI [.62,2.64]$ ; Security,  $OR=.86, 95\% CI [.66, 1.13]$ .

### **Alliance and Attachment**

Simple linear regressions were calculated to predict alliance score based on attachment anxiety, avoidance and security scores. The results revealed no significant associations between these variables; Anxiety,  $F(1, 13) = 0.69, p=0.42, R^2=0.05$ ; Avoidance,  $F(1, 13) = 0.78, p=0.39, R^2=0.06$ ; and Security,  $F(1, 13)=1.42, p=.26, R^2=.10$  respectively.

## **Discussion**

The purpose of the current study was to describe and characterize premature termination in adult clients at a university training clinic, as well as to examine adult attachment and therapeutic alliance as potential predictors of premature termination. Due to insufficient numbers of attachment and alliance scores for individuals who prematurely ended therapy, I examined the tendency to miss scheduled sessions (calculated as the ratio of missed:scheduled sessions, "missed appointment rate") as a proxy for premature termination. Missed appointment rate significantly predicted the likelihood of premature termination and was thus a suitable alternative outcome variable.

### **Premature Termination and Missed Appointments**

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**Premature termination.** Dropping out of therapy and inconsistently attending are both important mental health concerns because they are associated with poor outcomes for clients as well as financial burden, treatment inefficiency and loss of therapist confidence for providers (Barrett et al., 2008; Berrigan & Garfield, 1981; Edlund et al., 2002; LaGanga & Lawrence 2007; Oldham et al., 2012; Swift & Greenberg, 2012). In the current study, I sought to describe and characterize premature termination and compare our rates to previous literature. I found a premature termination rate of 26%, which accords with recent meta-analytic data reporting rates of 20 to 30%, depending on clinical setting (Swift & Greenberg, 2012). Our study took place at university training clinic with trainee clinicians, who conducted therapy with majority young, college-aged clients, without session limits; each of these variables have been found to be associated with premature termination. Financial cost can be a barrier and thus a risk-factor for premature termination (Khazaie et al., 2016; Wierzbicki & Pekarik, 1993). The low cost of our clinic services may have helped retain clients who might have otherwise prematurely terminated (i.e., some individuals are seen for as little as one dollar; the clinic does not accept insurance and operates on a sliding scale based on income). Taken together, our study included many risk factors that promote premature termination, particularly with regards to the characteristics of the clients and therapists, but fortunately did not burden clients financially.

**Failure to show.** Interestingly, 17 individuals who initially completed intakes by phone and scheduled a session with a clinician never attended that first session. Previous research suggests there may be some similarities between these individuals and those who prematurely terminate. Fenger et al. (2011) reported that age below 25 and lower educational attainment (nine years or less) predicted never attending therapy and dropout; likewise, a meta-analysis by Swift and Greenberg (2012) reported lower age and education as significant predictors of dropout, but

## PREMATURE TERMINATION IN PSYCHOTHERAPY

not gender, race, marital status, or employment. Whereas I did not have complete data on those who failed to show for the current study, the intake database did contain age and gender information. The individuals who failed to show for any session had a mean age that was younger than the full sample, but it was not significant with  $M=22.88$  years vs.  $M=25.66$  for the full sample,  $t(30.23)=1.49, p=0.15$ . They also did not differ in gender (55% female vs. 60% female for full sample),  $\chi^2= .11, p=0.74$ .

**Missed appointments.** As mentioned above, late cancellations and skipped psychotherapy appointments have many of the same negative consequences as premature termination for clients and their therapists (Berrigan & Garfield 1981; Edlund et al., 2002; LaGanga & Lawrence, 2007; Oldham et al., 2012). Missed appointments, particularly no-shows are a clinical problem across the globe: a recent systematic literature review selected 105 studies spanning across all medical settings and reported that the average no-show rate was 23% across the globe, with the highest rates in Africa at 45% and lowest in the Oceania region at 13.2% (Dantas, Fleck, Cyrino Oliveira, & Hamacher, 2018). Interestingly, even at this scale, they reported similar predictors that have been associated with both missed appointments and premature termination in more local samples: they found that adults of younger age, lower socioeconomic status, lack of private insurance, and further distance from the clinic were positively associated with no-shows.

Little research has been done on missed appointment rates for samples similar to the current study, that is, individuals seeking psychotherapy in university clinics. Research in this area suggests that most individuals occasionally miss or cancel a session without notice, while some miss a substantial portion of their appointments: Defife, Conklin, and Smith (2010) surveyed 24 psychotherapists and their patients ( $N=542$ ) in an outpatient public hospital setting

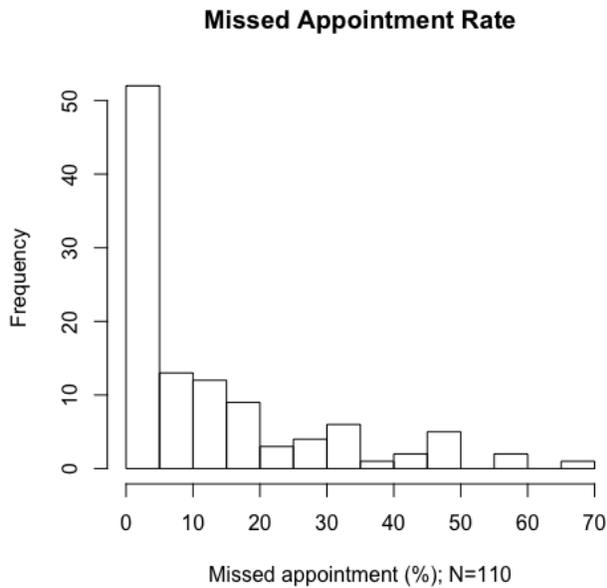
## PREMATURE TERMINATION IN PSYCHOTHERAPY

over a three month period and reported an overall missed appointment rate of close to 14%. They also found that trainee clinicians had a significantly higher missed appointment rate at  $M=17.55\%$  compared to  $M=10.33\%$  for staff clinicians. In our sample, where clients are seen by trainee clinicians, clients missed only about 12% of their scheduled psychotherapy sessions.

Our average missed appointment rate is somewhat lower than expected for trainee clinicians based on previous research (Defife et al., 2010). Moreover, the true rate of missed appointments for the current study is likely to be even lower because I was unable to distinguish between adequate notice cancellations (including rescheduling) and late cancellations. These are meaningfully different because late cancellations do not allow time for the therapist to reschedule and are thus very similar in effect to a no-show. Finally, the rate in the current study may also be lower due to a difference in clinical setting and the method of trainee supervision. First, given that about 60% of our sample were undergraduate students, the majority of our clients live and work within walking distance of the clinic; this may have contributed to better attendance, with no impact on dropout. Trainees in the current setting also receive intense supervision: their sessions are observed live by senior students and are also videotaped and reviewed by licensed psychologists. It is possible that this excellent supervision mitigated factors which hurt attendance and promoted practices that encourage retention, leading to the lower rate of missed sessions. Literature on interventions designed to reduce nonattendance and premature termination have reported ‘preparation for psychotherapy’ as one of several effective interventions (Oldham et al., 2012). Although I did not collect data on therapists or their supervision, in general, student trainees are strongly prepared and supported by the intense supervision structure.

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Unlike premature termination, mean rates of missed appointments can be misleading as they form positively skewed distributions, illustrated by Figures 2 and 3. Indeed, our results are



*Figure 2: Histogram of Missed Appointment Rate*

similar to those of Defife et al. (2010) despite our differing clinical setting, which both skew positively. Defife et al. reported that the majority of individuals in their sample missed infrequently (once per month; equivalent to 8.33% if they attended weekly) whereas only a small percentage missed frequently (13% of their sample missed more than a third of their sessions). Likewise, in our sample many clients never missed an appointment ( $n=43$ ; 39%) despite long-term treatment ( $range=1-49$ ;  $M=12$ ). Relatively few clients had high rates of missed appointments: 15.5% of our sample missed more than a third of their sessions. Defife et al. reported that the modal number of missed appointments for individuals who missed any sessions at all was one; I found the same result. There are some important differences: the current study has a much larger range of treatment duration as compared to Defife et al. (39 months vs. 3 months), and a much smaller sample size ( $N=110$  vs.  $N=542$ ). Despite this, our similar findings suggest that the findings of Defife et al. may be somewhat generalizable, to different settings and treatment durations.

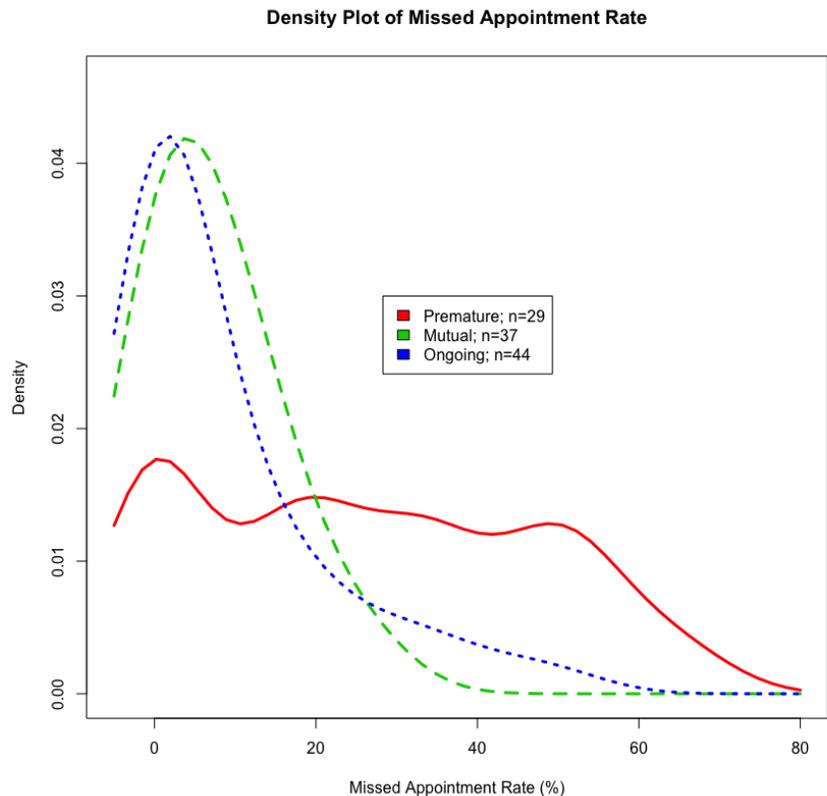
## PREMATURE TERMINATION IN PSYCHOTHERAPY

*Mutual vs. premature terminators.* Compared to mutual terminators, those who prematurely terminated were in therapy for a shorter duration (measured in scheduled sessions) and missed more sessions.

Importantly, our data suggest that people who missed sessions were more likely to terminate prematurely. Indeed, if a client misses many appointments, their treatment is likely to suffer, and this may cause them to terminate prematurely. This would be

consistent with the hypothesis that clients terminate

prematurely when the "perceived or anticipated costs of continuing the treatment outweigh any perceived or anticipated benefits" (Swift, Greenberg, Tompkins, & Parkin, 2012, p. 48). That is, when clients miss sessions and their treatment suffers, they may perceive that the costs outweigh the benefits. Our data supports this reasoning: Figure 3 displays a kernel density plot that contrasts premature terminators with mutual terminators and those who were in ongoing therapy at study end. The pattern suggests that those who mutually terminated therapy with their therapist had a similar probability of missing sessions as those in ongoing therapy, and those patterns differed from that observed in premature terminators.



*Figure 3: Kernel Density Plot of Missed Appointment Rate by Group*

## PREMATURE TERMINATION IN PSYCHOTHERAPY

*Group comparison of attachment and alliance.* Contrary to our hypotheses, there were no observed differences between the groups on scores of attachment nor therapeutic alliance. I was underpowered to detect small effects as our sample size for premature terminators who completed the attachment and alliance measures were both in the single digits. Likewise, even our somewhat larger sample of mutual terminators suffered from a low sample size of ( $n=12$ ).

**Alliance, attachment, and missed appointment rate.** I formed several exploratory hypotheses about the relationships among alliance, attachment and premature termination and modified these to substitute missed appointment rate for premature termination on the premise that the former predicts the latter. The results failed to support our hypotheses regarding attachment; hypotheses regarding alliance could not be tested adequately.

**Alliance.** Our hypothesis that lower scores on therapeutic alliance would be associated with increased missed appointment rate was not supported after removal of one outlier. This result may reflect a true lack of connection between alliance and the tendency to miss sessions, however, the small sample size and the likelihood that our alliance data was confounded due to methodological issues warrants strong caution in interpreting this null result. Two factors likely resulted in an inflated alliance score. First, individuals only completed the alliance measure if they attended enough sessions (minimum in current sample was five), which may have selected for individuals who formed a positive alliance and were willing to fill out the paperwork and return it to the therapist. Indeed, individuals who completed the alliance measure were in therapy for an average of roughly 50 sessions, substantially longer than those who did not,  $M=18.90$ . Second, and perhaps more crucially, the data was not anonymous. Thus, it is likely that this method also selected for clients who were willing to share their opinion of the therapist with that therapist. Individuals who had critical or negative things to say about the therapist may have

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been less likely to return this measure. Indeed, some questions on the measure focused on the therapist specifically, rather than the therapeutic relationship *per se*. For example, item nine instructs the client to report how much they agree with the following: "I like the therapist as a person." Many individuals might find it difficult to disagree with such a statement and then sit down with that person for a therapy session. Taken together, lack of anonymity and duration requirements may have created a biased sample of alliance scores. Indeed, the distribution of alliance scores was highly skewed towards an emotionally positive alliance (a 'negative' skew): 22 of the 28 individuals who completed the alliance measure reported scores of five or greater (out of six). The lowest score, at 4.00, was removed as a highly influential outlier. Thus, our hypotheses regarding the influence of the therapeutic alliance in the current study were not adequately tested.

***Attachment.*** I hypothesized that individuals who reported higher levels of attachment insecurity (anxiety and avoidance), particularly avoidance, may have been more likely to avoid therapy and thus cancel or skip sessions. This was not found. Self-reported scores of attachment avoidance, anxiety and overall security did not predict a tendency to miss sessions. One potential reason for the null result may be a diminished variability due to changes in attachment style of the course of treatment. Taylor, Rietschel, Danquah, and Berry (2015) reviewed research on attachment and psychotherapy and included studies of both self-report attachment assessments and interview-style methods. They reported that attachment security tends to increase with psychotherapy; likewise, attachment anxiety decreases. Interestingly, these authors reported inconclusive findings with regards to attachment avoidance. In the current study, many individuals were seen for long periods of time. They may have overcome the effects of their attachment insecurity or become more secure in their attachment models over time, which may

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have led to a decreasing influence of their attachment style on the missing sessions. It would have been informative had I been able to analyze the attachment styles of those who dropout of therapy early, and over time for those who do not dropout or who dropout later. In the current study, I was only able to analyze pre-therapy attachment styles as they relate to skipping or cancelling sessions; we could not assess changes in attachment models over time. It is also worth reflecting on the nature of the clinical setting: the majority of clients were college-aged, and thus there may have been less or skewed variability (i.e. more attachment anxiety) due to the transition period that college students typically experience when leaving home to attend a university.

*Post-hoc exploratory analyses.* In their study of missed appointments, Defife and colleagues (2010) reported that individuals tended to fall into one of two groups: those who missed one session or none at all, and those who missed several. Our data suggest that individuals who prematurely terminate tend to miss more sessions than others. Thus, in addition to contrasting mutual with premature terminators, it may also be worth comparing those who are consistent versus inconsistent attenders. Following this reasoning, I completed an additional *post-hoc* analysis. I compared attachment scores for two subsets: those who missed one or fewer sessions (the "consistent" group;  $n=26$ ), and those who missed two sessions or more (the "inconsistent" group;  $n=23$ ). T-tests revealed a trend in the expected direction for attachment anxiety, such that the inconsistent group had higher mean attachment anxiety scores than the consistent group:  $M=3.16$  vs.  $M=2.69$ ;  $t(46.997)=-1.80$ ,  $p=.08$ . The mean values were in the expected direction for Avoidance,  $M=2.80$  vs.  $2.62$ , and Security,  $M=6.27$  vs.  $7.08$ , but differences were not significant ( $p$ 's=.42 and .19, respectively).

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Likewise, because attachment may exert its greatest influence early in therapy, I chose to compare those who attended two or fewer sessions with those who attended three or more sessions. Splitting groups this way resulted in sample sizes of  $n=97$  (18 dropouts) and  $n=13$  (11 dropouts), respectively. T-tests revealed a trend in the expected direction for attachment anxiety, such that those who attended fewer than three sessions had an average attachment anxiety score of 3.78 vs. 2.85 for the rest of the sample; however this result was not statistically significant:  $t(2.54)=-2.24, p=.13$ . Likewise, tests t-tests for Avoidance and Security were not significantly different ( $p$ 's=.90 and .44, respectively).

The sample consisted mostly of university students, and self-reported attachment anxiety and avoidance may differ (i.e., higher attachment anxiety) in college students who are often transitioning from home to a new social environment. As such, I also chose to compare college students ( $n=68$ ) with non-college students ( $n=36$ ) on their self-reported attachment scores. T-tests here too revealed no differences in attachment anxiety, avoidance or security ( $p$ 's=.52, .35, and .38 respectively).

*Achieved power.* As with alliance, our sample size limited our ability to detect differences; previous literature reported small effect sizes when comparing attachment to dropout and alliance. If there are small effects with regards to the relationships between attachment and the outcome variables of interest, I would have been unlikely to detect them: a *post-hoc* power analysis revealed I achieved less than 11% power to detect small effects, (i.e.,  $f^2=.02$ ).

***Alliance and attachment.*** Meta-analyses have reported that alliance correlates negatively with both attachment avoidance and anxiety (Bernecker et al., 2014), and positively with attachment security (Smith et al., 2010). In the current study, I analyzed both attachment avoidance/anxiety and security and found no relationships with alliance. As summarized in our

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discussion above; the alliance data suffered from a low sample size and was confounded methodologically which resulted in biased data. As such, this relationship was not adequately tested.

### **Implications and Recommendations**

This study sought to shed light on an understudied area of psychotherapy: premature termination. Even less studied are the relational variables that may influence early termination, particularly adult attachment style and therapeutic alliance. Furthermore, little research has investigated the influence of these variables on the tendency to cancel or skip scheduled psychotherapy sessions. A primary finding of these results is that people who attend psychotherapy inconsistently are more likely to terminate prematurely. Both premature termination and inconsistent attendance have documented negative consequences for clients, their therapists, and the treatment settings themselves. As such, I suggest several recommendations for clinicians, researchers and mental health administrators.

**Clinician recommendations.** While the current study did not provide clear results regarding therapeutic alliance, researchers who study premature termination stress the importance of building a strong alliance (Swift, Greenberg, Whipple, & Kominiak, 2012). Inconsistent attendance is likely to impede that process. Clinicians should pay careful attention to their client's attendance and the variables that may affect it, such as motivation, treatment progress and the therapeutic alliance. There are several thorough reviews of interventions to reduce treatment dropout and nonattendance. Oldham et al. (2012) conducted a meta-analysis of randomized controlled trials ( $k=31$ ) on interventions to mitigate nonattendance; they reported that the most effective interventions included allowing the client to choose their therapist and appointment time, motivational interviewing and psycho-education, therapist preparation for

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psychotherapy, and administrative interventions such as appointment reminders. Similarly, Swift et al. (2012) suggest several specific strategies to mitigate premature termination: providing education about duration and patterns of change and role expectations, incorporating client preferences, strengthening early hope, fostering the therapeutic alliance and openly discussing and assessing treatment progress. Due to a lack of research, it is less clear what role attachment may play in this process, but I might expect it to play its largest role in the early stages of treatment, during the formation of the therapeutic alliance. This is also the stage at which clients are most likely to drop out. It is recommended that clinicians pay attention to attendance, provide clear structure about the process of therapy, and adapt flexibly to the client's preferences, where possible, early in treatment. In addition, part of fostering a therapeutic alliance involves openly discussing the treatment progress: many trainee clinicians may be wary of this process for fear of negative feedback, and this may explain their greater rate of missed appointments and premature termination. Furthermore, particularly in training clinics, supervisors are encouraged to pay attention to these variables and to encourage their supervisees to do so.

**Methodological and clinical setting recommendations.** Future researchers who seek to study relational variables in psychotherapy, especially as they relate to attendance and prematurely termination, should consider their method of data collection carefully. Our study highlights the importance of collecting data both anonymously and frequently. Like many medical settings, university clinics and other outpatient settings could have an electronic method of collecting anonymous survey data prior to each session in the waiting room. This would ensure anonymity, consistency, and would allow for more detailed analyses of richer data. Furthermore, this would not be an unexpected requirement for clients, as this style of data collection is prominent in more traditional medical settings. In turn, clinicians would benefit

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from broad information about patients in their clinic, and could address issues that appear in aggregate data with their client. For example, a clinician could say to a client, "The surveys you fill out before each session are anonymous, but we do get general feedback and some individuals are not very happy with how therapy is going. This is really important to me. How is therapy for you so far?" Having these data available in the aggregate for therapists might raise their awareness without compromising the validity of the data or the privacy of the client. It also would allow for information to be used to improve the clinic more generally, by reporting overall missed appointment rates, dropout rates, and alliance scores. This would be especially good for training clinics and could potentially foster group cohesion around common goals. Finally, these methods would allow for more rigorously controlled research designs. The current study, along with others, suggests that it may be useful to track both alliance and attachment over the course of therapy. Given that previous literature suggests that adult attachment styles can become more secure over time, it would be informative to assess whether avoidant or anxious attachment styles change differentially, and what relationship those changes may have to broader change in treatment over time. With regards to alliance, it may also be feasible for supervisors to rate the alliance between the therapist-client dyad, provided the training clinic utilizes video-taped sessions. This could potentially increase validity in alliance measurement by remaining confidential, but without needing to be fully anonymous.

### **Conclusions**

One of every five clients in psychotherapy will prematurely terminate, and they are likely to miss several sessions along the way (Defife et al., 2010; Swift & Greenberg, 2012). Many demographic, clinical setting, client, therapist and relational factors contribute to these problematic phenomena in psychotherapy; the current study adds to the literature by suggesting

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that one of the warning signs of premature termination may be skipping or cancelling sessions. In addition, relational variables, including the client's attachment style and the therapeutic relationship that forms between client and therapist may be important variables when considering how to reduce dropout. At the therapist level, I recommend that clinicians pay close attention to inconsistent attendance and consider it a cue to discuss aspects of the therapeutic process. Both researchers and clinicians alike will benefit from systemized and anonymous methods of data collection that are short and cost-effective.

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# PREMATURE TERMINATION IN PSYCHOTHERAPY

## Appendix A: Attachment measure

### Revised Adult Attachment Scale (Collins, 1996) - Close Relationships Version

The following questions concern how you *generally* feel in *important close relationships in your life*. Think about your past and present relationships with people who have been especially important to you, such as family members, romantic partners, and close friends. Respond to each statement in terms of how you *generally* feel in these relationships.

Please use the scale below by placing a number between 1 and 5 in the space provided to the right of each statement.

	1-----2-----3-----4-----5	
	Not at all	Very
	characteristic	characteristic
	of me	of me
1)	I find it relatively easy to get close to people.	_____
2)	I find it difficult to allow myself to depend on others.	_____
3)	I often worry that other people don't really love me.	_____
4)	I find that others are reluctant to get as close as I would like.	_____
5)	I am comfortable depending on others.	_____
6)	I <u>don't</u> worry about people getting too close to me.	_____
7)	I find that people are never there when you need them.	_____
8)	I am somewhat <u>un</u> comfortable being close to others.	_____
9)	I often worry that other people won't want to stay with me.	_____
10)	When I show my feelings for others, I'm afraid they will not feel the same about me.	_____
11)	I often wonder whether other people really care about me.	_____
12)	I am comfortable developing close relationships with others.	_____
13)	I am <u>un</u> comfortable when anyone gets too emotionally close to me.	_____
14)	I know that people will be there when I need them.	_____
15)	I want to get close to people, but I worry about being hurt.	_____
16)	I find it difficult to trust others completely.	_____
17)	People often want me to be emotionally closer than I feel comfortable being.	_____
18)	I am not sure that I can always depend on people to be there when I need them.	_____

## PREMATURE TERMINATION IN PSYCHOTHERAPY

### Appendix B: Alliance measure

INSTRUCTIONS: These are ways that a person may feel or behave in relation to another person – their therapist. Consider carefully your relationship with your therapist, and then mark each statement according to how strongly you agree or disagree. Please mark every one.

	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1. I feel I can depend upon the therapist.	1	2	3	4	5	6
2. I feel the therapist understands me.	1	2	3	4	5	6
3. I feel the therapist wants me to achieve my goals.	1	2	3	4	5	6
4. At times I distrust the therapist's judgment.	1	2	3	4	5	6
5. I feel I am working together with the therapist in a joint effort.	1	2	3	4	5	6
6. I believe we have similar ideas about the nature of my problems.	1	2	3	4	5	6
7. I generally respect the therapist's views about me.	1	2	3	4	5	6
8. The procedures used in therapy are <b>not</b> well suited to my needs.	1	2	3	4	5	6
9. I like the therapist as a person.	1	2	3	4	5	6
10. In most sessions, the therapist and I find a way to work together	1	2	3	4	5	6
11. The therapist relates to me in ways that slow up the progress of	1	2	3	4	5	6
12. A good relationship has formed with my therapist.	1	2	3	4	5	6
13. The therapist appears to be experienced in helping people.	1	2	3	4	5	6
14. I want very much to work out my problems.	1	2	3	4	5	6
15. The therapist and I have meaningful exchanges.	1	2	3	4	5	6
16. The therapist and I sometimes have <b>unprofitable</b> exchanges.	1	2	3	4	5	6
17. From time to time, we both talk about the same important	1	2	3	4	5	6
18. I believe the therapist likes me as a person.	1	2	3	4	5	6
19. At times the therapist seems distant.	1	2	3	4	5	6