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Prediction of Premature Termination within A University Counseling Center Setting: An Exploratory Study Using The Personality Assessment Inventory (PAI)

A Dissertation Presented for the

Doctor of Philosophy Degree

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ABSTRACT

Premature termination is a common clinical phenomenon in university counseling setting, often very disruptive to the therapeutic process, can be dangerous for clients at risk, evokes considerable reactions and among therapists, and often causes treatment to be not as beneficial to them. The existing literature reflects both clinical conceptualizations and empirical investigations into the nature and effects on premature termination in psychotherapy, both on clients and therapists. However, there are only few studies that examined, from an objective personality assessment standpoint, profiles of clients who tend to drop-out of therapy prematurely.

The current study investigated if clients at a university counseling center, who were classified to two groups (prematurely terminated and non-prematurely terminated), significantly differ on their Personality Assessment Inventory (PAI; Morey, 2003) scales. A canonical discriminant function analysis was conducted to determine whether the PAI scales could predict premature termination within a sample of university counseling center clients. The results indicated that the overall predictors differentiated between the two groups. The within-groups correlations between the predictors, two scales demonstrated significant relations with the discriminant function—SCZ and ANT-A. These results suggest that clients with antisocial behaviors (ANT-A) tend to prematurely terminate, whereas clients with schizophrenic tendencies (SCZ) tend to remain in treatment. In order to receive more accurate results and better range of those scales descriptive statistics were utilized, checking the percentage of students from the ANT-A group that received moderate results on the scale (T=>60) as well as those from the SCZ group who also receive moderate results on the scale (T=>60) . Results suggested that 83% of the prematurely terminating group had moderate elevation of ANT-A symptomatology

(T=>60T), and 66% of the non-premature terminating group had moderate elevation of SCZ symptomatology (T=>60T). An integrative discussion of the results, via the lens of Motivational Interviewing perspective, allows for explanation and possible implications for clinical work.

CHAPTER I

INTRODUCTION

Premature termination of psychotherapy can significantly influence the effectiveness of the therapeutic process and can negatively affect future seek out for mental health services (Wierzbicki and Pekarik, 1993). Premature termination occurs when a client discontinues therapy before substantial improvement or completing therapy goals and/or without the therapist's agreement based on their clinical conceptualization and/or symptomatic improvement (Hatchett & Park, 2003). This is a rather prevalent clinical phenomena, and during the years there have been several studies examining the overall rate of premature termination from therapy in different settings and different clients' population. Premature termination of therapy is often very disruptive for the therapeutic process, can be dangerous for clients at risk, and often evokes strong emotional reactions, sense of hurt, and feelings of failure among therapists (Garfield, 1994; DuBrin & Zastowny, 1988; Ogrodniczuk, Joyce, & Piper, 2005). When a client terminates therapy prematurely, the treatment is often not as beneficial (Garfield, 1994; Ogrodniczuk, Joyce, & Piper, 2005) and their satisfaction with mental health treatment rate is low (Lebow, 1982). One reason for this is the client and therapist did no have enough time to establish a therapeutic-alliance, identify the relevant issues, and work-through the issues so a reduction in symptoms and personality-change can take place. In other words, premature termination limits a client's ability to get the full benefit of therapy and can cause ineffective use of limited resources (Carpenter, Del Gaudio, & Morrow, 1979). Also, it can potentially put the clients in greater danger by having them experience an increase in symptoms and emotional regression, decreasing

the belief their problems are treatable, and negatively affecting the chance of returning for therapy with the same therapist or a different one (Pekarik, 1992; Sherman & Anderson, 1987).

In addition, when a client prematurely terminates therapy, it affects the therapist as well. It can negatively affect the therapist's self-confidence and increase feelings of incompetency, especially among therapists in training (Reis & Brown, 1999). On a macro level, this phenomena results in much clinical and financial resources not being utilized productively. Premature termination and dropout from therapy is particularly problematic in community mental-health clinics and university counseling centers, often providing services to clients who have no alternative (i.e. private clinics) and who serve large volume of clients with limited resources. No-shows, who can be the initial sign of dropout, poses a financial burden in terms of the clinic often not being paid by insurance companies (only pay for actual sessions), thus can lead to staff salaries being reduced, overhead being more difficult to pay for, consequently undermining staff morale, identification with the clinic's values, lowering motivation for the actual clinical work, burnout and even high turnover (Barrett, Chua, Crits-Christoph, Gibbons, Casiano, & Thompson, 2008; Klein, Stone, Hicks,& Pritchard, 2003; Tantam & Klerman, 1979). Missed appointments, often turning to treatment dropouts, waste time, prevent access to care for other clients in need, limit the number of clients a clinic can Serve, therefore holds the potential to exacerbate clients' symptoms, difficulties in functioning, and risk levels (Joshi, Maisami, & Coyle, 1986).

Definition of Premature Termination

Defining premature termination of psychotherapy reveals a non-unitary construct. An indeed, the literature suggests several definitions of premature termination, depending on type of population, type of treatment and number of sessions, and variability within therapists'

definitions based on variables such as gender, years of experience, theoretical orientation, treatment modality). Different clients are dropping out from treatment from different reasons.

Baekeland and Lundwall (1975) reviewed different articles and combined them to three main types of clients that can be defined as ending treatment prematurely; (1) clients that did not return to treatment, (2) clients who refused to return to treatment upon recommendation and (3) clients who were asked to leave treatment (lack of cooperation, poor respond for treatment), and 4 clients that initiated and scheduled an appointment and did not attend the first session. Another distinction can be made with regard to the specific pattern of a client 'terminating' behavior, for example a client does not come back after dropping out, a client who comes back for one time, and a client who repeatedly dropouts and comes back to therapy (Garfield, Affleck & Muffly, 1963; Kamin & Caughlan, 1963).

One of the core and difficult questions that emerges when trying to define premature termination is where distinguishing missing an appointment and terminating therapy prematurely. Baekeland and Lundwall (1975) express this difficulty in defining, and after reviewing the literature they found that only in rare cases such a distinction can be made.

The number of sessions attended by the client prior to terminating can also be used to define premature termination of psychotherapy; (1) clients who did not attend intake/first session; (2) clients who did not return after intake/first session; (3) clients who did not attend the last scheduled session; (4) clients who did not attend a minimum numbers of sessions; and (5) clients who did not successfully complete treatment (as determined by their therapists) (Gibby et al. 1953; Hiler, 1959; Baekeland et al. 1973; Lundwall, 1975; Fiester, 1977; Koss, 1979).

Prevalence of Premature Termination

Multiple studies point to the significant prevalence of premature termination as a clinical phenomena. In general, some of these studies point that approximately 35% terminate therapy after the first session, and by the third session 50% of patients tend to prematurely terminate therapy (Affleck &Medwick, 1959; Hiler, 1958; Rogers, 1951; Brandt, 1965). Other studies found that 44% of clients who prematurely terminated from brief, time limited therapy, did it within the first month of therapy (Elkin, Shea & Watkins, 1989), and more than 65% of clients terminate therapy before the tenth session (Garfield, 1994). Phillips (1985) found similar trend, with clients that attended less than six to eight sessions. Furthermore, several studies (Lorion & Felner, 1986; Sparks, Daniels & Johnson, 2003; Wierzbicki & Pekarik, 1993; Baekeland & Lundwall, 1975) suggested that premature termination and patients' dropout is a pervasive clinical phenomenon, occurring in 47% of clients across a range of settings and population.

Finally, in an effort to examine a more generalized trend, a meta-analysis that examined 125 studies of premature psychotherapy termination found that, in general, 30-60% of all outpatient clients prematurely terminate therapy (Wierzbicki & Pekarik, 1993). For inpatients clients, the average rate was 28%. These findings, specifically of such high prevalence of premature termination within the first ten sessions, are worrying because studies show that 50%-60% of clients who gain from therapy and improved need between 11-13 sessions (Hansen, Lambert & Forman, 2002; Lambert, 2007).

Premature Termination in University Counseling Centers

Premature termination is also a common phenomenon in a university counseling centers setting (Levy, Thompson-Leonardelli, Smith & Coleman, 2005). Empirical findings suggest that

within university counseling centers the rate of "no shows" immediately after intake session can be as high as 20-25% (Epperson, Bushway & Warman, 1983). The rates vary to a degree, mostly as the definition of premature termination also varies within the academic context (Hatchett & Park, 2003), specifically college students: (1) when therapists do not agree to the termination of therapy; (2) when clients doenot come to last scheduled session; (3) when clients do not return after intake; () client attended less than 4 sessions and stopped coming to therapy. The empirical literature contains some findings concerning predictive factors for premature termination. Betz & Shullman (1979) found that when male and female students in a counseling centers were interviewed by a male therapist for first intake session, it was less likely they will come back for first session, but when they were interviewed by a woman therapist their likelihood to come back increased. In contrast, in other studies (Epperson, 1981; Epperson, Bushway & Warman, 1983), it was found that the males' therapists who conducted the intake session had better returning rate than the females' therapists both for female and male students. Such correlation between therapist's gender and premature termination was not found in other studies (Krauskopf, Baumgardener & Mandracchia, 1981; Rudolfa, Rapaport & Lee, 1983), Martin, McNair & Hight (1988) also did not find any indication that the therapist's gender affects the client decision if to come to first session or not. They proposed the differences in the studies' results indicate that the effect of therapist's gender is not because of their gender but their ability to establish alliance with client. In addition to the gender of the therapist as predictor of clients' returning to therapy after the intake session, Krauskopf, et al., (1981) found that therapists who identified the client's presenting problem and addressed it with the client had greater likelihood that clients will return to therapy after intake when compared therapists who did not speak about the client's needs and expectations. Martin, McNair & Hight, in their 1988 study's result did not find support to

Krauskopf, et al., (1981) findings. Beutler, Harwood, Alimohamed & Malik, (2002) substantiated the importance of therapists discussing with clients what type of treatment and in what way they can help them. Beutler, et al., (2002) emphasized that this process should be in the first assessment session to help both clients and therapists to establish connection and plan goals and treatment plan for their work together. This "contract" (Beutler, et al., 2002) helps in reducing the rate of clients leaving after fist assessment session. Taken together, these results highlight the importance of the effort therapists needs to invest in establish strong initial rapport with clients.

Who prematurely terminates?

Several demographic variables have been found to correlate with premature termination (Frank, et al., 1957; Hiler, 1958; Lorr et al., 1958; Straker et al., 1967; Taulbee, 1958) Wierzbicki & Pekarik (1993) found that clients who prematurely terminated therapy were often of minority racial status, low level of education, and low socioeconomic status. Baekeland & Lundwall (1975) found that clients who were women, lower social class, and isolated from society tended to terminate psychotherapy prematurely. More recent studies did replicate some of these factors as having predictive value, finding that some demographic variables can be connected to premature termination from therapy, specifically low socioeconomic status, race, and education (Garfiled, 1986). In addition to Garfiled's (1986) findings, several other studies (Pekarik, 1991; Pekarik &Wierzbicki, 1986; Barrett, Chua, Crits-Christoph, Gibbsons & Thompson, 2008) also found similar results, suggesting that race, education and income can predict premature termination of therapy.

Diagnosis

Kolb et al., (1985) found that clients' personality traits can also affect their tendency for early termination, especially when they struggle with interpersonal relationships and their need to be in control in their relationships. Furthermore, Reuter & Wallbrown, (1986) addressed clients' impulsivity and extroversion when it came to premature termination of therapy. Specifically, clients with personality disorders tend to have higher rate of dropout from therapy. The probability for clients who were diagnosed with personality disorders (PD) to prematurely terminate therapy is 83.7%. This is in clear contrast to the probability of premature termination for clients who did not have diagnosis of PD, namely 46.8% (Persons, Burns & Perloff, 1988). Also, Persons et al., (1988) found a positive prediction of premature termination when severe depression was presented at the intake session. It was also found that drug and alcohol abusers, who often also suffer from co-morbid psychopathology (e.g. mood disorders) are more likely to end therapy prematurely (Albott, 1982). Also, it was found that paranoid, sociopaths, and alcoholics clients have higher rates of premature termination of therapy. Clients with poor motivation, low insight, low self-esteem and high need for approval also tend to be associated with high premature termination of therapy (Baekeland & Lundwall, 1975). A review study of Ogrodniczuk, Piper, (2008) found that 25% of clients from day treatment for Personality Disorders clients tended to prematurely terminate therapy. Different study of Hummelen B, Wilberg T&Karterud (2007) found that 50% of clients with PD diagnosis prematurely terminate therapy.

Clearly, identifying those characteristics of clients can help the therapist to predict who is in risk to premature terminate therapy, addressing it early with the client, and utilizing different

clinical strategies to decrease the likelihood for premature termination. One such option is for therapists, after identifying certain predictive factors for dropout, to prophylactically use interventions which focus on the client's perceptions and expectations from therapy, buildup of rapport, and any ambivalence or resistance that might exist and lead to dropout (Rollnick & Morgan, 1996; Swartz, Zuckoff, Grote, Spielvogle, Bledsoe & Shear, et.al., 2007).

Therapeutic Relationships

The relationship between therapist and client is another important factor in the prediction of premature termination in therapy In multiple studies it was found that clients who terminated prematurely reported weak alliance with therapist as opposed to clients who completed therapy reporting strong alliance with therapist (Barrett, et al., 2008; Frank & Gunderson, 1990; Mohl, et al., 1991; Piper, et al., 1999; Samstag, et al., 1998; Startup, Wiliding & Startup, 2006; Tyron & Kane, 1990, 1995; Gaston, Marmer & Thompson, 1988; Frayn, 1992). Furthermore, these studies found that clients who prematurely terminated from therapy had higher psychopathology and life-problems, and in general suffered from significant relationship deficits. Two other studies found no connection between the client-therapist alliance and premature dropout from therapy (Kokotovic & Tracy 1990; Tryon & Kane, 1993). One explanation for such difference between findings is that the latter mentioned studies focused on clients who terminated early in treatment and were from counseling centers. Baruch, Vrouva & Fearon, (2009) studied termination and premature termination in adolescents and found that clients which continued therapy was older on the range of adolescence age (12-21 years old) and suffered from anxiety mainly around sexual and interpersonal relationships issues. Clients which dropouts from therapy prematurely were younger adolescence have higher score on self-reported delinquency scores, have diagnosis have a diagnosis of hyperactivity-conduct disorder and be homeless.

The predictors that were discussed earlier focused on the client-related factors. Another set of predictors, empirically investigated, are therapist-related factors. There are studies that discuss the differences between therapist and client with regard to perceptions and expectations concerning termination, for example the therapist reporting therapy terminated prematurely while the client disagrees and reports therapy did terminate prematurely but was conclusive and achieved its goals (Hunsley, Aubrey, Vestervelt, & Vito, 1999; Borghi, 1968; Horenstein & Houston, 1976; Pekarik, 1985a; Pekarik & Finney-Owen, 1987). It was found that often therapists expect therapy to be longer than clients' expectations (Hunsley, et al., 1999). Other studies (Borghi, 1968; Horenstein & Houston, 1976; Pekarik, 1985a; Pekarik & Finney-Owen, 1987) found similar results, namely that therapists expect therapy to continue longer time than what clients planed or wanted. Hunsley, et al., (1999) also found the stated reasons for terminating therapy was often different between therapist clients, or in other words little consensus existed as to why therapy ended.

Clearly, the question of differential perceptions between clients and therapists is an important one. With the empirical findings in mind, one might ask how therapists can know if the client left prematurely and prior to resolution of the treatment goals? Hansen et.al (2002) addressed this question from a dose-effect perspective, asking how many sessions seem to be helpful for clients? Conducting a literature search, they concluded that 50% of the clients felt they recovered after 13-18 sessions. They also found the average number of sessions that a client engages, before he or she prematurely terminates (means the client does not feel he/she recovered), are 3-5. One of the predominant reasons that was found for clients to terminate after 3-5 session was client's expectations from therapy were not met, especially unmet role expectations from therapists (Garfield, 1994). In addition, Westmacott & Hunsley, (2010) found

that another major reason for premature termination is when client starts to feel better and decided to leave therapy without consulting the therapist.

Treatment type

Generally, most studies indicate that there is a connection between the type of psychotherapy clients receive and premature termination rate. Beutler, Harwood, Alimohamed & Malik, (2002) found that insight-oriented therapists who focused on interpersonal interaction with clients had greater alliance with introverts, withdrawn, socially restrained, low self-confident, and high self-criticism clients. As a result, premature termination rates were low in such dyads. Also, they found that behavioral and skill-focused therapists had greater alliance, hence lower rates of premature termination, with clients that tend to be impulsive, grandiose, and expansive. Studies have found fewer dropouts from brief psychotherapy models than from long-term psychotherapy models (Straker, 1968; Reder & Tyson, 1980). Reder & Tyson, (1980) found that only 13% of clients who received brief psychotherapy models of treatment pre-matured terminated psychotherapy. Clients who received long-term psychotherapy model had higher percentage of pre-matured termination from psychotherapy (41%). It was found by Hunt & Andrews, (1992) that clients who participated in time-limited cognitive-behavior therapy (CBT) had low pre-matured termination rate of 17%. For time-unlimited CBT psychotherapy the rate of premature termination was 50%.

Personality Assessment and Premature Termination

There are only few studies that examined, from an objective personality assessment standpoint, profiles of clients who tend to drop-out of therapy prematurely. Specifically, some studies have been conducted with the MMPI-2 and early termination of psychotherapy, yet the

pattern of results were not consistent. Some studies could not predict a relationship between MMPI-2 profiles and premature termination (e.g., Hilsenroth, Handler,Toman & Padawer,1995). However, other researchers have found more promising results. For example, Chisholm, Crowther & Ben-Porath, (1997) found that the content scales of Anxiety and Depression predicted premature termination better than the clinical scales. Graham, (1993) found that clients with higher elevation in Social Difficulties, Self-Alienation and Antisocial scales tend to have poorer therapeutic outcome. Other studies found contradicting findings concerning the Negative Treatment Indicators Content Scale (TRT). While in some studies this scale was found to be predictive of premature termination other studies did not (Chisholm et al.,1997; Hilsenroth et al.,1995). Also, Minnix et al., (2005) found that high level of the Global Assessment of Functioning (GAF; American Psychiatric Association, 2000), diagnosis of Personality Disorder (PD), and total number of clinical scales elevations were significantly associate with premature termination. A study that was conducted with the Personality Assessment Inventory (PAI) and prediction of non-mutual therapy termination found that amenability and motivation needs to be considered when predicting probability of non-mutual termination. Factor of amenability will be found in The Treatment Process Index scale (TPI) and motivation in the Treatment Rejection scale (RXR), (Hopwood, Ambwani & Morey, 2007).

Methodological problems in studying premature termination

Premature termination

Shared to many of the studies on premature termination is a definition of premature termination as terminating psychotherapy before a specific number of sessions by the client. Nevertheless, these studies differ in how the cut-off of the number of sessions was defined.

Several examples for the variability, thus lack of definitional consensus, exist. Kolb et al., (1985) determining that premature termination is considered when the client misses two consecutive sessions, Hatchett et,al. (2002) considered premature termination whenever a client misses the last session, Frayn, (1992) determined premature termination if psychotherapy ends within the first 9 months of treatment, and Longo, Lent & Brown, (1992) determined premature termination of psychotherapy if the client does not come after the intake session. Naturally, such construct variability effects methodology and thus empirical results in different studies, making it even more difficulty to generalize upon the phenomena. And indeed, in one study the rate of premature termination of clients was 47% while in a different study it was 36%. In the former premature termination was defined as a no show for scheduled session, while in the later premature termination depended on the number of sessions the client participated in (Wierzbicki & Pekarik, 1993).

Differences between clients and therapists about the timing of terminating

Hynan, (1990), McKenna & Todd, (1997) and Todd, Deane & Bragdon, (2003), found that the clients can terminate psychotherapy because they reach their goals for treatment and experience symptoms-relief, nevertheless, this does not mean the therapist think that the change is a sustained clinical improvement indicating termination of therapy. Similarly, Garfield, (1994); Pekarik & Finney-Owen, (1987) found that generally therapists expect psychotherapy to last longer than clients do.

Proposed Investigation

To date, no empirical investigation has been published examining the possible predictive relations between objective personality assessment and premature termination among university counseling center clients. To address this void in the literature, the current study will employ the use a broad objective self-report measure of personality function, the PAI. The study will attempt to classify clients into 2 termination groups (premature termination and non-premature termination-completion of at least four therapy sessions) based on the linear combination of PAI scales. Because the study is an explanatory study which was not investigated before, there will not be a directional hypothesis question. Thus the research question is the following:

Can the clients at a university counseling center, in two termination groups, be correctly classified into these categories based on their scores on the PAI scales?

CHAPTER II

METHODS

Overview

An archival data set from a counseling center at a large southeastern university was used to obtain the data for this study. Specifically, these data were collected during the period of October 2005 to June 2007 from university students who were receiving psychological services at the counseling center. Prior to inclusion in the research archive, each client consented to have their non-identifying data archived for future research. As an archival study, this study was approved by the university's Institutional Review Board (IRB).

Counseling Center Description

The counseling center provides undergraduate and graduate students of the university with free individual, couples, and group therapy. Students initially come to the center during walk-in hours and complete a packet of information that includes demographic information, current symptoms and concerns, available times for therapy, and information regarding confidentiality and the therapy process. The paperwork contains an informed consent form regarding the archival of their de-identified data for research purposes. Clients who consent to the inclusion of their records in the archival data set are assigned a research identification number that helps to ensure their anonymity and confidentiality, while still allowing for future matching of various forms of client data. Students complete the PAI between intake and their first session of therapy. PAI's that were either incomplete or completed incorrectly were excluded from use in this study. Also, in this study the premature termination group was defined by clients who did not complete more than two psychotherapy sessions and had GAF score

below 60. The non-premature termination group was defined as clients who completed at least four psychotherapy sessions and also had GAF below 60.

Participants

Participants were 177 students who received services at the student counseling center at a large southeastern university. The mean age of the sample was 22.87, median 21 (*SD* = 5.66; range 18 - 51), and included 125 females (70.6%) and 52 males (29.4%). Self-identified racial/ethnic data were available for 156 participants (88.1%) and included 132 (84.6%) White/Caucasian/European American, 13 (8.3%) African American/Black, 5 (3.2%) Asian/Asian American, 5 (3.2%) Hispanic/Latino/a, and 1 (1%) Other.

Participants were separated into two groups: (1) those with GAF scores below 60 who did not complete more than two psychotherapy sessions (hereafter referred to as "premature termination group"); and (2) with GAF scores below 60 who completed at least four psychotherapy sessions (hereafter referred to as "non-premature termination group"). The premature termination group included 74 participants, and non-premature termination group included 103 participants. There were no significant difference between the group with regard to age, sex, or race/ethnicity.

Instrument

The PAI is a self-administered, objective inventory of adult personality that provides information on important clinical variables (Morey, 1991). It contains 344 items that consist of 22 non-overlapping full scales. The scales are grouped into the following four categories: validity, clinical, treatment indicator, and interpersonal. The four validity scales include Inconsistency (ICN), Infrequency (INF), Negative Impression (NIM), and Positive Impression

(PIM). See Appendix A for a description of the validity, clinical, treatment, and interpersonal scales.

The PAI was developed based upon a construct validation framework that utilized both rational and empirical approaches to scale development. This method strongly emphasizes scale stability and correlates, and places importance on the use of both theoretical and quantitative items. Morey (1991) found the internal consistency reliability of the PAI full scales to have median coefficient alphas of .81, .86, and .82 for the normative, clinical, and college samples respectively. Additionally, the mean inter-item correlations for the full scales were .22, .29, and .21 for the three respective samples. The mean test-retest reliability for the full scales of the various PAI samples ranged from .75 to .79. The PAI has been well validated for several treatment populations (Morey, 2007b), and various PAI scales have correlated well with scales of several other frequently used personality and diagnostic instruments that measure similar constructs (Morey, 1991). It is the among the most widely used broad measures of personality and psychopathology (Morey, 2003).

Procedure

Titanium software was used to generate a report that contained PAI results, demographic information, and termination status for clients who had consented to the inclusion of their records in the archival data set. The report also provided the research identification numbers that were then used to match termination status and demographic information with PAI data that were only identifiable by the associated research identification numbers. These data were entered into an SPSS file and analyzed as described below.

CHAPTER III

DATA ANALYSES & RESULTS

Data analysis began by assessing the validity of each participant's PAI profile, which was determined using the following cutoff scores suggested by Morey (1991) for the four validity scales: ICN >= 73T, INF >= 75T, NIM >= 92T, and PIM >= 68T. Every PAI profile that exceeded one or more of these scale scores was considered invalid. This process yielded 177 profiles to be included in the data analysis. Means and standard deviations of the PAI scales for both groups are presented in Table 1.

A canonical discriminant function analysis was conducted to determine whether the PAI scales (four validity scales, 10 clinical scales, five treatment indicator scales, two interpersonal scales, and 31 clinical subscales) could predict premature termination of a sample of university counseling center clients. As there is no basis for theoretical precedence of one scale over another, the scales were entered in stepwise fashion into a discriminate equation to predict premature termination. The overall Wilks's lambda was significant, $\Lambda = .90$, χ^2 (2, $N = 177$) = 17.70, $p < .001$), indicating that overall the predictors differentiated between the two groups.

The within-groups correlations between the predictors and the discriminate function are presented in Table 2. Utilizing a stepwise method, two scales demonstrated significant relations with the discriminate function—SCZ (standardized canonical discriminate function coefficient = -.719—higher SCZ scores for the non-premature group) and ANT-A (standardized canonical discriminate function coefficient = 1.03—higher ANT-A scores for the premature group).

With regard to prediction of premature termination, 64% of the participants were correctly classified. In order to take into account chance agreement, a kappa coefficient was

computed resulting in an obtained value of .22, $p = .002$, a moderate value. Finally, to assess how well the classification procedure would predict in a new sample, the percent of clients accurately classified was estimated by using the leave-one-out technique and correctly classified 62% of the cases.

In addition to statistical significance, data were also analyzed with regard to clinical significance. Table 3 provides an expectancy table of moderate to high elevations (T>/= 60) on SCZ and ANT-A; as well as those with at least moderate elevations on ANT-A and average or low scores on SCZ. A closer look on the specific SCZ and ANT-A *t*-scores revealed that even though a significant statistical difference was found between the two groups, the actual *t*-scores were clinically non-significant (T< 60) in both groups. To further explore these results, descriptive statistics were used for the two groups, checking the percentage of clients in each of the groups who show elevations on these scales, more specifically moderate elevation (T=>60) on ANT-A and moderate elevation (T=>60) on SCZ scales. It was found that 83% of clients with moderately elevated ANT-A t-scores (T=>60) were in the premature termination group.

Interpretatively, it suggests that those clients tend to have a history of problematic behaviors (not necessarily legal issues), often leading to interpersonal difficulties, conflicts with authority, and non-conformity, which in turn can compromise their capacity to form working and therapeutic alliance and productively use therapy. Also, it was found that 66% of clients with higher SCZ (T=>=60) were in the non-premature termination group. Interpretatively, it suggests that those clients can appear as distant and withdrawn, nevertheless still maintain their involvement in therapy.

Furthermore, when examining the mean *t*-scores of RXR-scale for premature terminating clients (T<40; M=38.52, SD=9.87), it reflects, paradoxically, high motivation for treatment and understanding of the importance of receiving help.

CHAPTER IV

DISCUSSION

The current study investigated if clients at a university counseling center, who were classified into two groups (prematurely terminated and non-prematurely terminated), significantly differ on their PAI scales. A statistically significant difference was found on the SCZ (Schizophrenia) scale. Specifically SCZ scores were higher in the non-prematurely termination group when compared to the premature termination group. A second finding was a statistically significant difference on the ANT-A (Antisocial Behavior), specifically it was higher in the premature termination group in comparison to the non-premature termination group.

Clinically, these findings have clear importance, specifically pointing to two assessment-related markers therapists can utilize in predicting likelihood for premature termination. More specifically, sensitizing and increasing therapists' awareness to clients who endorse the PAI's ANT-A and SCZ scales, even if in the moderate range and not clinically significant. This is specifically important as often clinicians are trained to observe and interpret on scales that fall within the clinically-significant range oft-scores. According to the current study results, even moderately-elevated scores can carry meaningful information to attend to.

More broadly, the findings suggest that certain personality traits, namely being action-oriented with an anti-social quality, can be negatively associated with remaining in therapy, while being more introverted, withdrawn, and socially isolated can be positively associated with remaining in therapy. With these predictive markers in mind, therapists can be not only mindful, as early as the initial intake, of the likelihood of premature termination, but they can also employ certain clinical interventions to target barriers to the creation of rapport and later therapeutic

alliance, barriers such as ambivalence, deficits in capacity to relate, being action-oriented as opposed to reflective, having difficulties with authority-figures, conflicts revolving dependency, etc. As will be discussed later, one such clinical approach, specifically targeting ambivalence around change is Motivational Interviewing.

When compared with previous empirical findings, several noteworthy observations come up. In previous studies it was found that women with low socio-economic status usually terminate treatment prematurely. The current study also found that among those who prematurely terminate, women constitute the majority. It is unclear from the results if the important variable in determining termination is gender or an associated one, such as certain values that promote or inhibit engagement in therapy. Other comparisons with regard to socio-economic variables were not possible due to the nature of archival data used in the current study.

Other studies indicated that clients with personality disorders, especially borderline personality disorder (BPD) and anti-social disorder (ASD; conduct disorder in younger clients), tend to prematurely terminate treatment (Hummelen B, Wilberg T&Karterud (2007). In the current study, the statistically significant difference between the groups as well as higher ANT-A scores among the premature terminators fit with past research. Both in past and current studies, clients with high scores of delinquency and a diagnosis of conduct disorder tend to prematurely terminate treatment (Baruch, Vrouva & Fearon, 2009). However, in the current study, features of borderline personality disorder were not found to be a significant predictor for premature termination. Nevertheless, interestingly enough, it was found that even though the PAI's BPD scale and its sub-scales were statistically non-significant, the particular t-scores were moderately elevated (T=>60). This suggests the individual is moody, interpersonally sensitive, and feels uncertainty with regard to his or her sense of self, identity, and life.

A possible explanation for the discrepancy between past studies and the current study is based on Morey's (2003) description of the BPD scale, suggesting that a T-score higher T>60 is reflective more of a phase of life experiences rather than a personality disorder necessarily. Such distinction fits well with the current study, specifically when the population investigated is at a developmental stage of late adolescence/early adulthood, facing multiple developmental challenges within the domains of personal identity, professional choice, autonomy from family of origin, and establishment of intimacy. In contrast to the current study, most previous empirical findings were derived out of studies conducted in specialized clinics for personality disorders, community mental health centers, or private practices. Common to all these is a clinical population that is very often suffering from more severe and chronic life-problems and psychopathology than clients in counseling centers, as well as wider age-range which very often includes higher percentage of older adults.

Diagnostically, previous studies found that mild anxiety, depression and substances-use are often significantly correlated with premature termination of treatment. Those diagnoses were not found to be significantly correlated in the current study. Furthermore, in the current study, though both anxiety and depression scales were higher than T>60 for both groups, there were no statistically significant differences between the premature and non-premature groups. One possible explanation can stem from the clinical context in which the data were collected. In past studies the clinical facilities were mainly community mental health settings where very often clients came from low socio-economic status, and they often suffered from low levels of support systems, and lacking basic coping skills. These, very often, coalesce to confront them with significant levels of stressors, which in turn can underlie and intensify chronic depressive and anxious symptomatology, exacerbating lifelong subjective suffering. In the current study, the

clients were students, who very often function in the context of several protective factors, such as being developmentally young, functioning daily within a university setting that allows certain structure and routine, surrounded by peers that serve as a potential support system, and having access to free mental-health and medical services. Even if the clients were feeling anxious and depressed, such availability of structure and support might serves as a major resiliency factor, which may give them more resources to adaptively cope with their difficulties. Core to the research question and the study's clinical implications is the potential to predict who persists in therapy and who prematurely terminates. One possible way to interpret the findings is via the key construct of motivation for change, both in general and for therapy in particular. Morey (2007) discussed the importance of paying attention to the PAI's Treatment Rejection scale (RXR), because it taps a client's motivation for treatment. In the current study, the RXR scale was not significant as a predictor of premature termination. One possible explanation of why RXR was not found statistically significant is because the "*t*-scores were referenced against a community sample and not a treatment sample" (Morey, 2003, p.142). The present study was done with students seeking treatment, possibly making the scale and its norms somewhat insensitive to the clinical population in this study, which could have led to the non-significant results for the RXR scale. Another possible explanation is that premature termination in the current study was not caused by lack of motivation for change, through or outside of psychotherapy, but by other factors or processes. For example, clients initially arrived at their therapy session with high levels of motivation for change, yet terminate upon confronting the difficulties and effort often required in order to engage in the therapeutic process. Another possibility is that these clients terminated even though having high motivation for change via therapy, because of factors which are not tapped by the RXR-scale, such as limited rapport with the therapist. They might be still

motivated for change, yet perhaps not with the specific therapist owing to gender, age, intervention style, level of feeling emphatically understood etc. Finally, another methodological-level explanation has to do with the timing of tapping the motivational level of clients. The PAI was administered between the intake and first therapy session, often before clients actually met their prospective therapist (who is often different than the intake clinician). As such, the RXR-scale could have reflected the initial motivation for change and therapy not the motivation when the decision to prematurely terminate took place. It would be interesting to explore this issue, motivation for change and therapy, temporally closer to the actual premature termination.

Looking through the lens of motivation as a key explanatory construct for the current findings can allow the PAI-profile to be better interpreted in a manner that can be useful for therapists. Clients with elevated ANT-A scale very often have a history of behavior-problems and difficulties in relating to others. These often reflect difficulties in trusting other people and allowing themselves to become dependent and vulnerable, often fearing being hurt if they do so. One can easily see how such underlying emotional and relational vulnerabilities can negatively impact willingness and capacity to engage in psychotherapy, where trust, dependency, and emotional vulnerability are core to the process of internal change. It is especially important when working clinically with people who suffer from these specific behavioral problems to help them focus on their motivation to change more specifically, on any ambivalence or resistance they might have for change and engaging in the therapeutic process. Moreover, this needs to happen as soon as in the first session, as often these clients do not return to subsequent sessions. Morey (2003) suggests some further explanation why individuals who show elevations in personality and psychopathology scales usually manifest low treatment rejection scale (RXR). Their extreme stress levels and subjective distress often underlie their motivation to seek therapy and have high

motivation for change, even if they do not express it or behave like it. However, they can also act-out, reflecting their high level of distress, sometimes by prematurely terminating treatment, nevertheless not reflecting their motivation level. Such paradoxical phenomena, pointing to a behavior-intentionality gap, is critical to hold in mind for therapists, both addressing it early in the treatment as well as having a deeper understanding of the complexity of their clients' motivations as an important issue to discuss in the therapy. In this context, Rosen, (2000) discussed how motivated clients are more likely to use the therapeutic relationship for changing, and that strong therapeutic relationship tends to help in cases of a rupture in the treatment (Rosenberger & Hayes, 2002; Safran & Muran, 2003). This highlights how establishment of strong rapport and alliance through empathically addressing the clients' conflicts and ambivalence, can enhance a sense of being listened to and understood non-judgmentally, thus enhancing the therapeutic relationship. This can be very important especially with those clients who have low motivation or ambivalence, who tend to prematurely terminate therapy.

From a motivational perspective, helping clients with difficulty to stay in treatment means to try and increase their motivation for change. Motivational Interviewing (MI; Miller & Rollnick, 2002) is one approach therapists can use to increase motivation for treatment, and as a result reducing the likelihood of premature termination. MI focuses on the responsibility and capability of the client to change. At the heart of this approach is the belief that the therapist's role is to create a secure and safe environment, providing a set of conditions that will increase the client's motivation to stay in treatment as well as commitment for change. The MI approach has five main principles: 1. Expression of empathy by the therapist. The therapist needs to actively listen to the client without judgment, criticism, or blame, focusing on the buildup of the therapeutic relationship and trust; 2. To increase discrepancy in the client's mind between

present and past behavior, and future goals. For example, with clients who show elevations on ANT-A scale, it is important to help them to connect to their past problematic behavior and how this behavior will interfere with their future goals. This principle goal is to cause the client to be more aware of the problems, present out-loud the argument for change, and help them realize the need for change. Hopefully, by doing so, the therapist is increasing motivation to stay in therapy. 3. Therapist needs to avoid being argumentative. Resistance is an inherent part of treatment, and many times clients will express resistance for change. When the therapist feels the resistance it is time to change the therapeutic strategy used. This is an important aspect because if the client feels the therapist is arguing with them, the focus shifts from intrapsychic and behavioral change into the interpersonal conflict as well as the client not feeling supported by the therapist. 4. Working with resistance. The therapist needs to let the client's resistance and ambivalence be freely expressed. It is important that the therapist will encourage and promote the client's capacity to feel secure enough to discuss their contemplations, questions, concerns, and conflicted motivation. By doing so, not only the client will be able to examine potential alternatives to change, but more importantly will give them the power and control over their own resistance, concerns, and fear of change. It also instills an atmosphere of safety, thus promotes, alliance, within the therapeutic dyad. This is especially important with individuals who have a history of behavioral problems and difficulty relating and conforming, as they often resist change due to their underlying concerns and fears revolving unresolved conflicts around dependency and power. Working with these clients, therapists often experience considerable resistance and negative transference toward them, in turn leading to angry and resentful countertransference by the frustrated therapist. Such emotional and interpersonal constellation can lead to a conflict, rupture, and premature termination of the psychotherapy. It is important for the therapist to be

aware of such process, especially with clients who struggle with behavioral problems. The latter can often be efficiently and quickly identified by looking if a client had an elevated PAI ANT-A scale. 5. Support self-efficacy. It is important the therapist will support the client's confidence in him/her ability to change. Therapist can do so by emphasizing the client's positive changes as well as the importance of taking responsibility for their lives. Both routes will increase the client's motivation to stay in treatment via helping them becoming more aware of their positive changes and progress, feeling empowered, and starting to link the change process to the therapy. This is especially relevant in cases of problematic and unruly behaviors, where it is easier to show the client how they actually changed because it is on a behavioral level that is very often easy to notice for oneself as well as see others' changed reactions to it.

In sum, utilizing MI as a pathway for helping clients focus on their own motivations and reservations around change, especially with clients who suffer from behavioral problems, can help in reducing premature termination. More specifically, therapists can integrate several principles and strategies from the MI approach (miller & rollnick, 2002), namely: 1. Therapists should ask open-ended questions to which the client cannot answer in a yes or no answer. It will help the client to hear themselves, elaborate their self-understanding, and become more aware of the problem and own it to its full complexity. 2. Reflective listening. By reflecting back the client's statement it can help them realize if what they assume by their words is what actually is being told by them. Many times clients do not hear what they say and when the therapist reflects their statements back to them they can hear themselves somewhat differently. 3. Affirm the clients' effort to change and support their efforts and struggles around it. 4. Summarize clients' thoughts and feelings during the session and at its end. This will help the client to move on in the process, increase and emphasize ambivalence, and allow reflection and processing of it without

needing to act-on it. Though the above mentioned strategies constitute basic clinical skills of therapists, MI highlights the importance in giving these precedence within therapy, as well as individualizing their use to each client and the stage of change they are at.

The current study has several limitations, which are important to note, both as a possible guide for future empirical inquiries as well as pointing-out to possible restrictions in their current findings clinical applicability. Methodologically, the sample size was not very big (N=177), very possibly limiting statistical sensitivity and power to detect more pronounced and additional differences between the groups. Increasing sample size could have resulted in identifying a more complex configuration of statistically and clinically significant PAI-scales, allowing for a more accurate and elaborate description of the phenomena as well as its applicability to the clinical setting in early identification of clients who might prematurely terminate. Another limitation of the study stems from having only two groups, potentially masking finer-resolution differences, both between and within groups. For example, using a session cut-off for the prematurely terminating group, identifying those who leave after one session vs. those who leave after 2 and more sessions, consequently identifying if these constitute somewhat two different groups and with different PAI-profiles. Clinically, by having more than two groups might make it possible to predict the amount of sessions a certain client will likely stay before prematurely terminate psychotherapy. Utilizing a student population for the sample can also be a limitation in this study, posing a range-restriction by their young age, intelligence level, and relative abundance of social resources and support. Psychometrically, another limitation is the use of PAI as the sole assessment tool in the current study. The PAI is an objective personality and psychopathology measure, which is designed for use only with clinical population. In other words, the focus of the PAI interpretation is based on results in clinical samples, reflecting moderate to high scale-scores

on, and not on non-clinical population. This presents with a potential limitation to the sensitivity of the PAI in the current study, specifically if it was more sensitive to low scores (i.e. non-clinical population) it could have provided a wider range of understanding the reasons for premature terminations or non-premature terminations from psychotherapy. This is especially important when considering a sample of students, who is most probably comprised from individuals who have major psychopathology (clinical population) yet also individuals who are essentially healthy psychologically and arrive to therapy because of developmentally-appropriate struggles (e.g. romantic relationships, separation from home) and wish to further enhance their already adaptive scoping with stressors. Conceptually, choosing Motivational Interviewing as a perspective of explaining the results allows for a certain 'slicing' of reality, yet at the expense of not noticing other explanations through alternative theoretical models. By essence, MI is a perspective that focuses on an intrapsychic construct, namely ambivalent motivation, while neglecting interpersonal and contextual factors that are most probably as influential in determining adherence to therapy. For example, factors such as cultural background, values, and therapists' theoretical orientation.

In light of the above limitations several recommendations are in place: 1. Increase sample size. Adding participants and having more than two groups, consequently allowing greater sensitivity to differences among different types of clients who tend to terminate; 2. Further decreasing range-restriction by expanding the diversity of clients. This can include, for example, wider age-range, race, gender and severity of mental illness; 3. Utilizing an additional measure, a second personality assessment measure, which will allow a multi-method approach that taps greater range of both normative and psychopathological traits and disorders. For example, using the NEO Personality Inventory-Revised (NEO-PI-R; Costa & McCrae, 1992) for normative

personality descriptors, while using the Millon Clinical Multiaxial Inventory-III (MCMI-III; Millon, Millon, Davis, & Grossman, 2006) for enhancing the detection and description of clinical conditions. The latter, for example would substantially add to the PAI's emphasis on descriptive psychopathology consistent with the DSM-IV-TR (APA, 2000), by its emphasis on the DSM's Axis-II psychopathology. In addition, it is recommend increasing reliability and validity of the results by utilizing not only an objective (self-report) personality assessment measure, but also a projective (performance-based) measure, such as the Rorschach. The latter will allow the detection of affective, cognitive, and interpersonal tendencies and deficits that are often outside of one's awareness thus cannot be reported, nevertheless still have profound influence on behavior (Meyer & Viglione, 2008; Weiner & Greene, 2007). And last, adding a specific tool for measuring Schizophrenia/Psychotic and Antisocial spectrum tendencies can also add sensitivity by increasing the range and potential meaning of the results. On the conceptual level, it is recommended that future research integrates additional theoretical perspectives to explaining the results. One example can be Attachment theory, which can allow an explanation of clients' difficulties in continuing therapy in the context of their respective attachment styles (e.g. avoidant style).

Clinically, the results point-out to the importance of carefully planning the focus of psychotherapy while tailoring it to not only to patients' symptoms and alleviation of their subjective distress and suffering, but even more important to their underlying personality deficits and vulnerabilities. Interestingly, both scales (ANT-A and SCZ) tap the somewhat more enduring character structure, style, and tendencies rather than just symptomatic features. For example, being high of ANT-A is considerably suggestive of longstanding difficulties in relatedness, specifically indicating a core deficit in one's capacity to engage in relationships that

are based on mutuality, intimacy, and mature dependency. As such, it is of no surprise that such personality-based, developmentally-anchored, deficit would also manifest within the therapeutic relationship, where an 'invitation' to be emotionally vulnerable and allow for a certain dependency to evolve is at the core of the therapeutic process and eventually change. In turn, this might explain why these patients tend to prematurely terminate psychotherapy. One way to conceptualize such clinical phenomena is that the patient fears what they most yearns for – close attachment and change that occurs within the safety of an emphatic relatedness. With this in mind, it seems very important to put an emphasis when planning psychotherapy, especially during the initial alliance-formation stage, to patients' underlying personalities as a critical source of information as to their likelihood to be internally conflicted about engaging in psychotherapy and consequently prematurely terminate. This is especially noteworthy within the current, and ever-growing, cultural emphasis on brief, symptom-oriented, therapeutic interventions, increasingly neglecting to take into account and clinically address patients' personalities and their role not only in the specific symptomatology but also capacity to productively engage and persist in psychotherapy. Putting it differently, the results highlight what seems to be a known, yet often neglected, assumption in psychology and it clinical applications, namely that patients' symptoms occur within the broader context of patients' personalities. The current results strongly suggest that neglecting one over the other not only oversimplifies the patients' makeup from a conceptual standpoint, but in turn can compromise the potential to predict and therapeutically address certain character deficits that can significantly limit their capacity to remain engaged in psychotherapy and benefit from it.

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APPENDIX

Description of validity, clinical, treatment, and interpersonal scales (Morey, 2003)

Validity scale

There are four validity scales:

- Inconsistency (ICN) - Concludes if the client is consistent in his/her answers through the questioner.
- Infrequency (INF) - Concludes if the client is responding carelessly, randomly, or idiosyncratically to the questioner's questions.
- Negative Impression (NIM) - Suggests overstated unfavorable impression or malingering.
- Positive Impression (PIM) - Suggests overstated favorable impression or unwillingness to admit minor flaws.

Clinical Scale

There are eleven clinical scales:

- Somatic Complains (SOM) - Preoccupation with health matters and somatic complaints associated with somatization or conversion disorder.
- Anxiety (ANX) - Focuses on phenomenology and observable signs of anxiety.
- Anxiety-Related Disorder (ARD) – Focuses on symptoms and behaviors related to specific anxiety disorders (phobias, traumatic stress, and obsessive-compulsive symptoms).
- Depression (DEP) - Symptoms of phenomenology of depressive disorders.
- Mania (MAN) - Focuses on affective, cognitive, and behavioral symptoms of mania and hypomania.
- Paranoia (PAR) - Symptoms of paranoid disorders and on enduring characteristics of the paranoid personality.

- Schizophrenia (SCZ) - Symptoms which are relevant to the broad spectrum of schizophrenic disorders.
- Borderline Features (BOR) - Focuses on the traits which can be indicative of a borderline level of personality functioning.
- Antisocial Features (ANT) - Focuses on the history or legal act and authority problems, egocentrism, lack of empathy and loyalty, instability, and excitement seeking.
- Alcohol Problems (ALC) - Problems with alcohol use and features of alcohol dependence.
- Drug problems - problems in drug use and features of drugs dependence.

Treatment Scale

There are five treatment scales:

- Aggression (AGG) - Characteristics and attitudes connected to anger, assertiveness, hostility, and aggression.
- Suicidal Ideation (SUI) - Suicidal ideations ranging from hopelessness to thoughts and plans for suicidal act.
- Stress (STR) - Measures the affect of recent stressors in major life areas.
- Nonsupport (NON) - Lack of social support.
- Treatment Rejection (RXR) - Attributes and attitudes that indicate lack of interest and motivation in making personal (psychological or emotional) changes.

Interpersonal Scale

There are two interpersonal scales:

- Dominance (DOM) - Assesses how much the client is controlling and independent in relationships.

- Warmth (WRM) - Assesses how much a client would like to be in supportive and empathic relationships.

Table 1: Group Statistics

Group Statistics

Termination				Valid N (listwise)	
		Mean	Std. Deviation	Unweighted	Weighted
premature	ICN	54.1486	9.08210	74	74.000
	INF	52.4054	8.98693	74	74.000
	NIM	55.2432	11.55311	74	74.000
	PIM	41.2432	9.87568	74	74.000
	SOM	52.5000	9.53760	74	74.000
	ANX	64.1486	13.39360	74	74.000
	ARD	56.4459	13.37360	74	74.000
	DEP	64.8919	12.31389	74	74.000
	MAN	53.2432	12.64999	74	74.000
	PAR	55.2838	10.04172	74	74.000
	SCZ	57.2297	12.36605	74	74.000
	BOR	63.1892	11.26113	74	74.000
	ANT	55.6757	11.95552	74	74.000
	AGG	53.9730	12.85746	74	74.000
	ALC	54.2432	12.82101	74	74.000
	DRG	49.5811	11.74618	74	74.000
	SUI	56.1622	15.55989	74	74.000
	STR	57.7027	10.63817	74	74.000
	NON	56.3919	12.61204	74	74.000
	RXR	38.5270	9.87070	74	74.000
	DOM	46.1216	9.99720	74	74.000
	WRM	47.2297	11.26827	74	74.000
	SOMC	50.4054	8.63557	74	74.000
	SOMS	54.8108	12.21012	74	74.000
	SOMH	51.0811	9.60701	74	74.000
	ANXC	64.7568	12.87752	74	74.000
	ANXA	61.2838	12.84525	74	74.000
	ANXP	62.2162	14.58961	74	74.000

Table 1 continued

ARDO	49.8243	12.17718	74	74.000
ARDP	54.7838	12.80226	74	74.000
ARDT	58.6757	12.66546	74	74.000
DEPC	64.9054	14.35668	74	74.000
DEPA	63.8919	12.51253	74	74.000
DEPP	59.1757	10.59899	74	74.000
MANA	53.1622	13.19509	74	74.000
MANG	49.5405	11.14068	74	74.000
MANI	55.2027	11.52600	74	74.000
PARH	56.8514	12.35179	74	74.000
PARP	50.3514	10.39551	74	74.000
PARR	56.0270	9.06290	74	74.000
SCZP	49.4189	11.20055	74	74.000
SCZS	54.2838	11.66369	74	74.000
SCZT	62.1486	15.97402	74	74.000
BORA	61.0405	12.09714	74	74.000
BORI	64.1351	11.91790	74	74.000
BORN	61.1486	11.18669	74	74.000
BORS	54.5000	11.86367	74	74.000
ANTA	55.0811	10.83975	74	74.000
ANTE	53.1486	11.21360	74	74.000
ANTS	55.4730	13.16411	74	74.000
AGGA	49.4730	11.28367	74	74.000
AGGV	49.3649	12.38047	74	74.000
AGGP	50.2838	9.81963	74	74.000

Table 1: Continued

not premature	ICN	51.6796	8.61851	103	103.000
	INF	50.8932	8.29589	103	103.000
	NIM	55.0583	11.62133	103	103.000
	PIM	39.4466	10.95063	103	103.000
	SOM	52.9612	9.92612	103	103.000
	ANX	67.9417	13.98166	103	103.000
	ARD	58.0000	12.37011	103	103.000
	DEP	65.8155	13.09898	103	103.000
	MAN	51.0583	10.83370	103	103.000
	PAR	54.3689	12.08466	103	103.000
	SCZ	59.8447	12.36595	103	103.000
	BOR	62.4175	12.03876	103	103.000
	ANT	51.1359	9.59376	103	103.000
	AGG	52.0777	11.48118	103	103.000
	ALC	51.2233	10.36295	103	103.000
	DRG	49.3981	12.27331	103	103.000
	SUI	56.9709	15.84883	103	103.000
	STR	55.0777	10.19101	103	103.000
	NON	55.1845	11.74963	103	103.000
	RXR	37.3107	10.46285	103	103.000
	DOM	45.1942	11.38373	103	103.000
	WRM	45.5631	12.03074	103	103.000
	SOMC	51.0291	9.92467	103	103.000
	SOMS	55.6214	10.82401	103	103.000
	SOMH	51.0388	10.14012	103	103.000
	ANXC	68.0291	13.45687	103	103.000
	ANXA	65.5437	13.90146	103	103.000
	ANXP	64.7282	14.09227	103	103.000
	ARDO	50.3107	11.83384	103	103.000
	ARDP	55.7087	12.30545	103	103.000
	ARDT	60.7573	15.04142	103	103.000
	DEPC	64.2816	14.14035	103	103.000
	DEPA	66.0971	15.43075	103	103.000
	DEPP	59.9709	11.16846	103	103.000
	MANA	52.1748	10.77436	103	103.000
	MANG	48.0680	9.99732	103	103.000
	MANI	52.7864	12.37221	103	103.000

Table 1: Continued

	PARH	56.1068	13.98523	103	103.000	Total
	PARP	49.4466	9.10799	103	103.000	
	PARR	55.2816	11.94794	103	103.000	
	SCZP	49.4175	9.88019	103	103.000	
	SCZS	57.0680	13.28294	103	103.000	
	SCZT	64.7767	14.18431	103	103.000	
	BORA	60.0000	12.82919	103	103.000	
	BORI	64.0097	11.32972	103	103.000	
	BORN	60.4369	12.18539	103	103.000	
	BORS	53.9903	13.11824	103	103.000	
	ANTA	50.0777	9.58623	103	103.000	
	ANTE	50.5534	9.72235	103	103.000	
	ANTS	52.1845	11.10798	103	103.000	
	AGGA	49.4272	12.07785	103	103.000	
	AGGV	48.7087	11.85751	103	103.000	
	AGGP	50.2913	11.92101	103	103.000	

Table 1: Continued

	ICN	52.7119	8.87422	177	177.000
	INF	51.5254	8.59907	177	177.000
	NIM	55.1356	11.56030	177	177.000
	PIM	40.1977	10.52326	177	177.000
	SOM	52.7684	9.74082	177	177.000
	ANX	66.3559	13.82820	177	177.000
	ARD	57.3503	12.78500	177	177.000
	DEP	65.4294	12.74919	177	177.000
	MAN	51.9718	11.64310	177	177.000
	PAR	54.7514	11.25456	177	177.000
	SCZ	58.7514	12.39847	177	177.000
	BOR	62.7401	11.69354	177	177.000
	ANT	53.0339	10.84755	177	177.000
	AGG	52.8701	12.07646	177	177.000
	ALC	52.4859	11.51733	177	177.000
	DRG	49.4746	12.02227	177	177.000
	SUI	56.6328	15.68930	177	177.000
	STR	56.1751	10.43148	177	177.000
	NON	55.6893	12.09712	177	177.000
	RXR	37.8192	10.20868	177	177.000
	DOM	45.5819	10.80590	177	177.000
	WRM	46.2599	11.71442	177	177.000
	SOMC	50.7684	9.38674	177	177.000
	SOMS	55.2825	11.39724	177	177.000
	SOMH	51.0565	9.89302	177	177.000
	ANXC	66.6610	13.27970	177	177.000
	ANXA	63.7627	13.59688	177	177.000
	ANXP	63.6780	14.31517	177	177.000
	ARDO	50.1073	11.94660	177	177.000
	ARDP	55.3220	12.48787	177	177.000
	ARDT	59.8870	14.09661	177	177.000
	DEPC	64.5424	14.19386	177	177.000
	DEPA	65.1751	14.28715	177	177.000
	DEPP	59.6384	10.91050	177	177.000
	MANA	52.5876	11.82084	177	177.000

Table 1: Continued

MANG	48.6836	10.48491	177	177.000
MANI	53.7966	12.05166	177	177.000
PARH	56.4181	13.29539	177	177.000
PARP	49.8249	9.64883	177	177.000
PARR	55.5932	10.81369	177	177.000
SCZP	49.4181	10.42153	177	177.000
SCZS	55.9040	12.67186	177	177.000
SCZT	63.6780	14.97093	177	177.000
BORA	60.4350	12.50398	177	177.000
BORI	64.0621	11.54594	177	177.000
BORN	60.7345	11.75085	177	177.000
BORS	54.2034	12.57674	177	177.000
ANTA	52.1695	10.39802	177	177.000
ANTE	51.6384	10.42039	177	177.000
ANTS	53.5593	12.08437	177	177.000
AGGA	49.4463	11.71968	177	177.000
AGGV	48.9831	12.04842	177	177.000
AGGP	50.2881	11.06137	177	177.000

Table 2: Correlations of PAI Scales with the Discriminant Function

Structure Matrix

	Function
	1
ANTA	.749
ANT[a]	.573
AGG[a]	.397
SCZ	-.321
ANTS[a]	.315
ALC[a]	.304
SCZT[a]	-.289
ANXC[a]	-.283
ANTE[a]	.256
ARD[a]	-.253
SCZS[a]	-.250
ANX[a]	-.239
ARDP[a]	-.235
AGGP[a]	.232
BORS[a]	.223
RXR[a]	.221
DEPC[a]	-.215
DEP[a]	-.212
ARDO[a]	-.208
DRG[a]	.205
SOMS[a]	-.199
DOM[a]	.198
NIM[a]	-.196
MANG[a]	.190
ANXA[a]	-.188
DEPA[a]	-.187
AGGV[a]	.184
ANXP[a]	-.178
ARDT[a]	-.119
AGGA[a]	.119
SCZP[a]	-.115
BORI[a]	-.111
DEPP[a]	-.110
SOM[a]	-.104

Table 2: Continued

MAN[a]	.092
SOMC[a]	-.058
INF[a]	.055
PARP[a]	.046
NON[a]	-.045
PIM[a]	.043
SUI[a]	.039
STR[a]	.038
BORN[a]	-.031
WRM[a]	.026
ICN[a]	.018
BORA[a]	-.016
PAR[a]	.015
MANA[a]	.014
MANI[a]	.012
BOR[a]	.011
SOMH[a]	.005
PARR[a]	-.001
PARH[a]	-.001

Pooled within-groups correlations between discriminating variables and standardized canonical discriminant functions

Variables ordered by absolute size of correlation within function.

a.This variable not used in the analysis.

Table 3:

Percentage of Clients with moderate elevations (60T+) on ANT-A

Group	ANT-A >/= 60T
Premature Termination Group	83%
Non-Premature Termination Group	17%

Percentage of Clients with moderate elevations (60T+) on SCZ

Group	SCZ >/= 60T
Premature Termination Group	34%
Non-Premature Termination Group	66%

Percentage of Clients with moderate elevations (60T+) on ANT-A & SCZ below 60T

Group	ANT-A (60T+) & SCZ < 60T
Premature Termination Group	73%
Non-Premature Termination Group	27%

VITA

Meirav Edlis-Matityahou was born and raised in Haifa, Israel. She served in the Israeli Defense Forces for two years of regular service in the Administrative Core. She graduated in 1998 with a Bachelor's Degree in Education, Sociology and Anthropology from the University of Haifa. Meirav enrolled in the PhD Counseling Psychology program at the University of Tennessee Knoxville in 2005, and is currently preparing to finish her pre-doctoral internship at the Virginia Commonwealth University's Counseling Center in Richmond, VA.

Within psychology, Meirav is mostly interested in long-term individual and group psychotherapy, focusing on LGBTQ population.

Outside psychology, Meirav enjoys outdoor activities such as kayaking and mountain biking, along with oil painting and playing with her two dogs.