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I am submitting herewith a thesis written by Dennis Plant entitled "The MMPI-2 and Poor Psychotherapeutic Progress". I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

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We have read this thesis
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# THE MMPI-2 AND POOR PSYCHOTHERAPEUTIC PROGRESS

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Abstract

In many counseling center settings, the MMPI-2 is given largely to a population perceived to be progressing slowly in therapy. The testing in large part is largely used to elucidate aspects of the individual's personality, assumedly hidden from the therapist, that is impeding treatment progress. Unfortunately, extensive research on the profiles of these individuals does not exist. The present study sought to explore a number of such MMPI-2's from an on-campus university counseling center in search of consistencies among scales and profiles. The study discovered five significantly distinct groups of MMPI-2 profiles. Interpretations on each group's mean profile were made with respect to personality characteristics that might impede treatment progress. The groups were found to have distinctly different MMPI-2 profile interpretations and thus the hypotheses regarding their reported poor progress in treatment were similarly distinct. Additionally, differences were found among groups with regard to reported childhood sexual and physical abuse, reported adulthood physical abuse and overall family of origin relationships. The findings suggest that individuals possess a number of separate and distinct characteristics that make them prone to poor progress in psychotherapy. It is believed that these characteristics can be assessed by their MMPI-2 profiles.

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# I. Introduction

Those who use and do research with self-report instruments have become increasingly concerned with detecting clients' susceptibility to an unsuccessful psychotherapy treatment. A large percentage of this work has utilized the Minnesota Multiphasic Personality Inventory (MMPI) in such a manner. MMPI and MMPI-2 validity, clinical content scales and two-point codetypes have been used for this purpose. Unfortunately, this approach has yielded equivocal results. For example, studies using the MMPI-2's Negative Treatment Indicators Scale (TRT), a scale thought to measure a clients attitude towards treatment, has not proved to be successful in predicting early termination from psychological treatment (Hilsenroth, Handler, Toman & Padawer, 1995; Chisholm, Crowther, & Ben-Porath, 1997), but has been successful in predicting outcome for men seeking treatment for chronic pain (Clarke, 1996). Chisholm et al. (1997) found that elevations on the Depression (DEP), Anxiety (ANX) and Anti-Social Practices (ASP) content scales to be significant predictors of early termination in a sample of psychotherapy clients.

Although researchers have speculated upon the determinants of unsuccessful treatment outcome, relatively little empirical work has focused on MMPI-2 profile configurations that may lead to such a result. This study aims to investigate individuals who have been identified as progressing poorly by clinicians, and thus are likelier to have a poor outcome. Such a query could potentially lead to improved identification of individuals who have MMPI-2 profiles that are "at risk" for a poorly progressing treatment and hence, a potential poor outcome.

The population from which this study is drawn is college students enrolled at a major university. Much research has focused on the MMPI-2's of college students seeking psychotherapy. The work of Duckworth and Anderson (1995) in recent years has contributed to our present knowledge concerning the preponderance of certain profiles and codetypes and their meaning within this specific population. This work, combined with previous research on personality variables and psychological tests correlated with poor outcome suggests the existence of a number of MMPI-2 profile configurations in a sample of college counselees progressing poorly in psychotherapy.

Based on speculative literature concerning defensiveness and the MMPI-2, three validity configurations are likely to occur in this population. As mentioned previously, each respective configuration represents individuals who either are inadequately, improperly, or overly defended. These defensive operations are likely to impede therapeutic progress, albeit in different ways.

One of the potential patterns we would expect to see is representing that of a "naïve" defensiveness (Butcher, 1990). This defensiveness is manifested by elevations on the L scale, low scores on the F scale, and a K scale that is either slightly elevated or within normal limits. The high L scale reflects client tendencies to project an overly virtuous self-image, with a deflated F scale that reflects a tendency to deny psychological distress. Resistance to exploration of dynamic problems would thus be anticipated from such individuals. Clients would be expected to progress slowly or poorly in treatment due to this unwillingness.

An additional validity scale configuration includes the style described by Butcher as "the reluctant, defended and unwilling participant" (Butcher, 1990, p.49). The

configuration is marked by an L scale in the moderate to low range, an F scale significantly low, and an elevated K scale. These individuals will likely present a more subtle defensive style, the L scale representing a willingness to admit minor faults in conjunction with a high K, indicating a sizable amount of defensiveness. Psychological unease will not be readily admitted, and a positive self-image will be projected to the therapist. This is likely to impede exploration of problematic areas of the client's present functioning, and a reluctance to change. Many of these clients are likely to be referred by another individual rather than themselves, and will likely be resistant to exploring psychological weaknesses or faults (Greene, 1991). There is also a preponderance of college counselees with this scale highly elevated (Duckworth and Anderson, 1995).

The final validity scale configuration is the exaggerated symptom spike. This is the classic "spiked" F scale that is accompanied by significantly low L and K scales. The client presenting such a profile is likely either faking bad, or is in crisis (Greene, 1991). While this may allow the client to willingly examine their faults, it ironically becomes the bane of obtaining therapeutic progress. There are simply too many areas of maladaptive functioning occurring within the individual. Their presentation of complaints will be potentially unclear, as many aspects of their existence will be of concern to the individual, restricting the focus of treatment issues. The wide F-K gap also indicates that the client may be unable to effectively gain from the therapeutic experience due to a significant lack of defensive resources. A high F and low K is thought to be common in college counseles who are in a crisis situation (Duckworth & Anderson, 1995).

Previous studies have noted a number of two-point codetypes and profile configurations within college populations. For instance, the 2-0 code type has been

evidenced in college counseling settings (Elliot, Anderson & Adams, 1987; Anderson & Bauer, 1985). As the previous investigations suggest, the 2-0 type is likely to stick in therapy without necessarily progressing well. A depressive affect and a concomitant withdrawal from social interactions mark the 2-0 code-type. It is likely that the depression has driven the individual into therapy; however, the interpersonal difficulties characterizing the individual become a major impediment in building a strong therapeutic relationship. In the void of such a dynamic, the therapy is vulnerable to stagnation, likely caused by the client's hesitancy to become emotionally invested in the interactions. The depression is unlikely to remit without this involvement, meanwhile keeping the client coming back to treatment.

The 4-9/9-4 code-type is another problematic profile that may have negative treatment implications (Butcher, 1990). Importantly, this profile is likely to be highly represented in college populations (Duckworth & Anderson, 1995). The 4-9/9-4 code-type, in more elevated forms, is problematic due to the impulsive, acting-out behaviors characteristic of these individuals. This lack of self-discipline and impulse control has been found to be negatively correlated with successful exploratory therapy (Stone, 1985; Strupp & Binder, 1984). In less elevated forms, the 4-9 profile is indicative of a lack of empathy or an overly strong and rigid morality, both found to be major impediments toward therapeutic progress (Strupp & Binder, 1984).

The 4-2-7-8 scale configuration is also thought to exist within this student population. These people are likely to have a number of neurotic complaints of a chronic nature, with some externalization of their problems projected upon others. Anderson and Bauer (1985) have found a number of college counselees exhibiting this profile. These

individuals were characterized by their poor relationships with the opposite sex, significantly more depression, less self-esteem and dependency issues. They often complain of family discord and exhibit a rigid morality. Importantly, these individuals responded poorly to psychotherapy.

*Present Study*

In some college counseling center settings, the MMPI-2 is typically given only to clients who are perceived to be progressing slowly or poorly in therapy. In these situations, the MMPI-2 is used to elucidate the individual's personality organization, present functioning and symptomatic complaints. It is assumed that many of these aspects are a hindrance to the progression of the psychotherapy. Despite a great number of individuals who have taken the MMPI-2 under such a context, formal research attempting to understand this population and their profiles has, to this investigators' knowledge, not been done extensively.

Recently, investigators have begun investigating the full MMPI-2 clinical scale configurations to explore differences among individuals who have had successful and unsuccessful treatment. Using cluster analysis, studies have found reliable differences among empirically derived profile clusters in treatment outcome for various medical ailments and mental health problems. Results have indicated a significant relationship between MMPI profile group membership and treatment outcome among chronic pain sufferers (Bombardier, Divine, Jordan & Brooks, 1993), poly-drug addicts (Belding, Iguchi, Morral & Husband, 1998) alcoholic clients (Sheppard, Sheppard & Rosenbaum,

1988), women with childhood sexual abuse histories (Follette, Naugle & Follette, 1997) as well as headache sufferers, (Williams, Thompson, Haber & Raczynski, 1986) insomnia sufferers (Edinger, Stout & Hoelscher, 1988) and incarcerated rapists (Kalichman, 1990). Besides the improved predictive ability, there is an additional benefit to this approach: the interpretive value of the profile configuration itself. The configuration affords richer interpretive value in understanding the individuals' personality organization than looking at a lone scale elevation (Greene, 1991).

Unfortunately, research has not been done extensively using MMPI-2 profile clusters to predict successful psychotherapy clients. It is our goal to use this approach in our investigation of college psychotherapy clients who are not progressing well in treatment, according to their therapists. While this is not a study of outcome, the participants in this study are believed to be on the path leading to a poor outcome. The present study allows a glimpse into clients' functioning at the moment when they are deemed by their therapists to be progressing poorly in psychotherapy. The MMPI-2 may thus be used to understand and potentially identify profile patterns and configurations consistent with individuals who are believed to be having difficulties in psychotherapeutic treatment. Work in this area will hopefully be helpful in intervening with psychotherapy clients who are progressing poorly in order to prevent what would otherwise be an unsuccessful treatment outcome.

## II. Methods

*Particpants*

Our sample included 92 male and 118 female college students seeking psychological treatment at a local university counseling center. To be eligible for psychological services at this facility, an individual must be currently enrolled at the University. The participants ranged in age from 17 to 53, but for the most part participants were in their mid-twenties (M= 24.3, SD = 6.15). Most participants were Caucasian (93%) and 41% were married upon intake at the counseling center. Treatment at this particular counseling center is short-term; clients who are believed to need longer than a semester in counseling are generally referred elsewhere.

At the time of the MMPI-2 administration, all participants had been seen for at least one session with a therapist, and only in rare instances was the test administered later than six sessions into treatment. The referral issue for all participants was to understand each client's personality functioning better due to an existing impediment (according to their clinician) in their psychotherapeutic treatment. One session is a significant proportion of the clients' time in treatment in a context where treatment is typically limited to three or four months.

*Measures*

*MMPI-2.* The MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) is the most widely used assessment device in clinical practice (Butcher &

Williams, 1992) and is commonly used by clinicians to generate hypotheses regarding an individual's present personality functioning, symptomotology and character style (Graham, 1990; Greene, 1991). The MMPI-2 clinical, content and validity scales were scored using a computerized scoring program.

*Existence of Abuse and Family of Origin Ratings.* Data concerning childhood physical and sexual abuse as was collected on each participant using a 5-point Likert scale that rates extent of abuse experienced (McKee, 1999). Physical abuse is defined by this scale as being a non-normative amount of violence that the individual described as being abusive and intending injury. Corporal punishment and non-injurious spanking that was not reported by an individual as abusive was reported as normative socializing and not coded for abuse. Sexual abuse was defined as non-normative touching or penetration. The extent of abuse on both scales were rated as minimal (1) to moderate (3) to severe (5). Anchors for these three points were based upon recent trauma literature (e.g., Justice & Justice, 1990).

Additionally, family of origins relations were rated by a family measure constructed for previous studies. All ratings were based upon documentation in the case notes or social histories of subject's descriptions of their families. The measure is a 5-point Likert scale yielding a single score that rates family members nurturing behaviors, communication of warmth and acceptance, quality of attachment, ability to provide for the subject's physical and emotional needs and sense of security. The measure has been used previously to ascertain the existence of physical and sexual abuse in childhood and adulthood (McKee, 1999).

The scale was scored by two advanced graduate students in clinical psychology and one advanced graduate student in counseling psychology. In most cases, the participant was no longer in treatment at the center, and the file was closed. The scorers of the Family Measures Scales were kept blind from the MMPI-2 results, and only had access to clinical notes and social histories. The data in this study is a subset of data on which the reliability of raters was collected. The inter-rater agreement on the scale in the previous study was 92% (McKee, 1999).

*Procedures*

The clinical, content and validity scales of all participants were transferred to a statistical database (SPSS for Windows, version 9.0). Demographic information, grade point average and the measures of abuse and family relations were then added to the database. The MMPI-2's were taken anywhere between the first and tenth session of psychotherapy. All referrals for testing were made by the therapist responsible for the participant's psychotherapy case.

*Statistical Procedure*

A cluster analysis using nine of the ten MMPI-2 clinical scales determined profile group membership. The Masculinity-Femininity Scale was precluded due to the consolidation of males and females in the analyses. Ward's method of heirarchical agglomerative clustering (Ward, 1963) with squared Euclidian distance as the

dissimilarity measure was used as the clustering procedure. The decision to use Ward's method was made after searching recent literature concerning its utility in the clustering of MMPI's (Kalichman, 1988; Holcomb, Adams & Ponder, 1985; Belding, Iguchi, Morral & Husband, 1998; Sheppard, Smith & Rosenbaum, 1988;).

## III. Results

*Cluster Membership*

Initial review of the dendrogram from the cluster analyses suggested the presence of five profile clusters. Since most cluster analyses may be found to have additional import by reducing or increasing the clusters by one, it was decided to determine whether a six profile cluster or four profile cluster solution would be more meaningful to this sample. In a cluster analysis, such determinations are made qualitatively. As is the case in other studies utilizing a cluster analysis, our strategy was to have the smallest and most parsimonious number of clusters that retain significant interpretative meaning (e.g., Follette, Naugle, and Follette, 1997). After running group means on the four-factor and five-factor solutions, it was determined that having a fifth cluster did add sufficiently to the clinical meaningfulness of the data. Next, group means were run on the six-cluster solution to ascertain its appropriateness. It was determined that the additional cluster did not contribute to a more meaningful and robust clusters.

Discriminant function analyses indicated two significant functions that classified 89.5% of the cases into the correct cluster group. The first function was determined by

the D, Sc, F, and Hy scales and accounted for 87% of the between-groups variance (Chi-Square = 556.379, p<.000). The second function was determined by the Ma, Si and Pd scales and accounted for 11% of the between-groups variance (Chi-Square = 148.99, p < .000). Finally, a cross-validation, leave-one-out procedure was run to determine correct classification of each case into its group individually. This procedure uses a function derived from an analysis using all cases except the individual case to be classified, as a method of determining the quality of the cluster structure. Each individual case is then classified into its group based upon this function. This assures that the function determining cluster membership is independent of the individual case being classified. The result from the cross-validation procedure was an 83.8% correct classification rate.

*Cluster Profiles*

Following the clustering procedure, a mean MMPI-2 profile for each cluster group was ascertained. Mean scores for the validity and clinical scales of each cluster are shown in Table 1. Gender by cluster group is shown in Figure 1. An interpretation on each clusters mean profile was made, specifically on how each profile might represent therapeutic problems for an individual in individual psychotherapy. These interpretations were based on literature concerning each profiles scale elevations and configurations (Greene, 1991, Butcher, 1990).

Cluster 1 (n=30) is depicted by all of the validity and clinical scales falling within normal limits, with moderate elevations on scales 4 and 9 (t = 56 and t = 58 respectively). While these elevations are moderate, they are likely to be indicative of a certain

personality style, especially given the importance of the codetypes "well-defined" (all other clinical scale elevation at least five points below the two highest scales) nature (Graham, Timbrook, Ben-Porath, and Butcher, 1991). Individuals displaying higher elevations of the 4-9/9-4 codetype, as mentioned earlier, are overactive and prone to acting-out behavior in response to interpersonal difficulty. These clients tend to make superficial relationships and choose to avoid substantial interpersonal interactions. They are likely to have difficulty reflecting on their actions and postponing gratification. In treatment, these individuals are likely to present a socially desirable image to others, and seem to be free from any form of distress. However, they are thought to use poor judgement and have difficulty learning from experience. Such interpretations must be tempered by the moderate elevations on these scales. Nonetheless, these characteristics, whether pathological or not, seem to be obvious impediments to progress in interpersonal psychotherapy.

Cluster Two (n=56) is characterized by an 8-7-2 clinical profile with a spiked F validity scale configuration. This profile reflected the greatest amount of pathology as indicated by the MMPI-2. Patients with an 8-7-2 profile are likely suffering from a number of chronic difficulties including notable thought disturbance. Especially when scale 8 is higher than 7, individuals with this codetype may be adapting to the presence of serious psychopathology, making psychotherapeutic intervention very difficult (Greene, 1991). They have difficulty forming close interpersonal relationships and tend to be isolated and withdrawn. Their problems are likely to be characterological in nature. Although they are for the most part reporting internalized symptoms, the elevated 4 and 6 indicate that they are likely angry and blaming, projecting some of their difficulties onto

other people. The high F indicates that they may be crying for help or may indeed be suffering from a great deal of distress. Thus, impediments in therapy might stem from the diffuse presentation of their complaints and possible over-reporting, which could cause their therapy to be unfocused and a weekly exercise in "putting out fires". Likewise their tendency to externalize anger and place problems on others indicates that they may have trouble reflecting on their own role in their present difficulties, making gains in interpersonal therapy hard to come by.

Cluster Three (n=54) bears some resemblance to Cluster Two, however the mean profile does not cause the degree of concern the Cluster Two profile does. This group has a milder spiked F validity configuration, with a 2-7-8 clinical scale configuration with additional moderate elevations on scales 4, 6 and 0. This group is characterized by their long-standing neurotic complaints. They tend to be chronic worriers, prone to excessive rumination and introspection that causes them mild thinking and concentration problems. The elevated 4 and 6 indicate that they may project their blame externally. The moderately elevated 0 further exacerbates the problems inherent with a 2-7-8 profile. The elevated 0 indicates they are socially isolated and have difficulty engaging in important interpersonal relationships. The depression in these individuals is likely to be chronic and characterological, and therefore resistant to change. Again, treatment gains would be expected to be slow to come by with this personality style. However, one would expect their progress in therapy to be better than Cluster Two, given the milder elevations on the clinical and F scales.

Cluster 4 (n= 35) subjects display no elevations above the 65 level, although they do have moderate elevations on scales 4,6,7,8 and 9. The nearly marked elevations on

Scales 4 and 6 (64 and 63, respectively) indicate these individuals may have a history of interpersonal difficulties and poor work histories. They are more than likely seeking services as the result of interpersonal difficulties rather than any particular internal distress. They show a tendency towards hostile attitudes and behaviors towards others and may be mistrustful and suspicious of others' intentions. The near marked elevation in scale 8 (t= 64) indicates these individuals misinterpret others' intentions, resulting in increased mistrust and hostility toward them. In combination with the elevated 7 and 9, these individuals may be experiencing a degree of agitation and dissatisfaction caused from their relationship difficulties. In light of this information, we would expect these individuals to show hesitancy in forming the close therapeutic alliance with their therapist that they need. Not only will they tend to be guarded and suspicious toward their therapist but are likely to externalize their interpersonal problems. These individuals may want to use their time in therapy attributing blame to others rather than to explore their own contributions to their present difficulties.

The final group, Cluster Five (n= 35), displays a Spike 2 profile, in which the Depression scale is the only elevated clinical scale in the profile. Clients with this profile are likely experiencing mild depressive symptoms. They are characterized as having a sense of hopelessness, inadequacy and guilt. The moderately elevated 0 scale, in combination with the elevated 2, indicates that these individuals are socially withdrawn and isolated, especially under situations of distress, thus exacerbating their depressive symptoms. Another notable part of this profile is scale 9 being below 45. Greene (1991) states that individuals with a spike 2 and 9 under 45 are more likely to be experiencing significant depression, especially in college students and individuals under 30 (who make

up most of our sample). They tend to be "shut down" emotionally and are reluctant to engage in social activities. Taking all these dimensions on the MMPI-2 into account, we expect the Cluster 5 clients to be quite flat emotionally and distant interpersonally, making access to troubling affect and a solid therapeutic connection difficult to obtain.

*Comparisons of Clusters*

*Age and Grade Point Average.* Table 2 summarizes the mean age and grade point averages of participants in the five clusters. The one-way Analysis of Variance (ANOVA) procedure indicated a non-significant effect for grade point average ($F= 1.778$, $p = .137$) and a nearly significant effect for age ($F= 2.408$, $p = .051$).

*Family Relations and Abuse Measures.* Table 3 summarizes the mean scores for each cluster. A significant effect was found for extent of reported childhood physical abuse ($F = 10.083$, $p < .001$), sexual abuse ($F = 2.639$, $p < .05$) and extent of reported adulthood physical abuse ($F= 2.933$, $p < .05$). No effect was found for reported adulthood sexual abuse. Tukey B post hoc analyses revealed that Cluster 2 reported a higher extent of childhood physical abuse than all other Clusters ($p <.05$) and a higher extent of adult physical abuse than Clusters 1 and 5 ($p <.05$). Cluster 4 was shown to have a higher extent of reported childhood sexual abuse than Cluster 5 ($p<.05$). Finally, a significant effect was found among clusters on the overall family relations scale ($F = 15.342$, $p < .01$). Post-hoc analysis indicated Cluster 4 subjects were reported to have a significantly greater degree of family disturbance than all other clusters ($p <.05$). Additionally, Cluster

5 participants reported having significantly better family relations than all other clusters ($p < .05$).

*MMPI-2 Content Scales.* The five clusters were compared to determine significant differences among groups on six content scales. Mean scores on each cluster are shown in Table 4. Although there is item overlap between the content and clinical scales, the content scales nonetheless offer additional information regarding treatment implications beyond that of the clinical scales. Also, the clinical and content scales are not always correlated with each other (Butcher et. al, 1989). Results of the ANOVA procedure indicated significant effects for all six content scales tested. Post-hoc analyses indicated that Cluster 1 had a significantly higher Ego-Strength (ES) scale score than all other Clusters ($p < .05$), with Cluster 2 being significantly lower than all other Clusters on the same scale ($p < .05$). On the MacAndrew Alcohol Scale (MAC-R), Cluster 5 was found to score significantly lower than all Clusters except Cluster 3 ($p < .05$). Cluster 2 had a significantly higher score on the Negative Treatment Indicators Scale (TRT) than all other clusters ($p < .05$), and Cluster 3 was higher than the remaining 3 clusters ($p < .05$). Cluster 2 was also significantly higher on the Family Problems Scale (FAM) than all other clusters ($p < .05$) and higher than Clusters 1 and 5 on both the Anger (ANG) and Cynicism (CYN) scales ($p < .05$).

## IV. Discussion

This clustering of profiles indicate that the personality functioning responsible in clients' poor progress in therapy are numerous and distinct within this sample of college

counselees. By no means do we present the five mentioned profiles as exhaustive of the type of profiles that has difficulty progressing in psychological treatment. Rather we wish to present the finding that such profiles seem to exist within a population of college counseles progressing poorly in psychotherapy. Additionally, we posit that profile interpretations based on this information are useful in understanding each group's distinct impediments when entering treatment. Such knowledge can inform the therapist of these potential problems, making early interventions to address these issues possible if they should in fact arise. Not only can valuable time be saved in the therapy process, it may additionally allow an important therapeutic alliance to be formed between the two participants. The efficacy of using the MMPI-2 therapeutically has already been demonstrated to be highly effective in treatment outcomes (Newman & Greenway, 1997, Finn & Tonsager, 1992). The MMPI-2 profile can thus be used to introduce these potential impediments within a therapeutic context.

We envision these possibilities within our own sample of college counseles. Cluster One individuals reflected the least amount of pathology on the MMPI-2. While no clinical scales rose above 60, the well-defined codetype may indicate a certain personality style that is not very amenable to psychotherapeutic treatment. Individuals in Cluster One may have difficulty becoming deeply involved with the work of psychotherapy, given their propensity for shallow and superficial interpersonal relationships. Likewise, the therapist may anticipate "acting-out" in response to interpersonal difficulty and conflicts within the therapeutic situation. The therapist may then in turn be able to address this tendency therapeutically, hopefully resulting in treatment gains that are often acted out in the world rather than within the therapeutic

context. Finally, the lack of reported distress reflected on the MMPI-2 suggests individuals in this group are unlikely to be highly motivated for treatment. Given that patient motivation has been found to be an important correlate of successful treatment (e.g., Safran and Wallner, 1991), the question of the clients desire for change may be addressed directly by the therapist.

Cluster 2's mean profile shows the greatest amount of reported distress. Given that scale 8 is higher than scales 7 and 2, we would expect these individuals to be suffering from serious pathology including thought difficulties, cognitive disorganization and strange sensory experiences. The elevated 7 and 2 indicate they are in a good deal of present distress, but given the diffuse nature of their difficulties (evidenced by the elevated F scale), therapy may be a weekly exercise in "putting out fires". Their problems tend to be longstanding and serious. Indeed, these individuals scored significantly higher than all other clusters on overall family disturbance and extent of reported childhood abuse. They also had significantly higher scores on the TRT scale and CYN scales, indicating that they are likely to have an attitude about psychological treatment that is at odds with therapeutic gain (Butcher et al., 1990). Given the severe and chronic nature of their problems, these individuals may become frustrated easily by the slow course of treatment they encounter. Client attrition may thus be of particular concern in this group. The therapist could potentially use this information to support a more realistic view of the therapeutic situation. The ability to identify and model attrition in psychotherapy has been thought to be linked to improved outcome (Howard, Krause, & Orlinsky, 1986).

Cluster 3 had a similar profile configuration as Cluster 2 but was less elevated, reflecting less psychopathology. In addition, Cluster 3 members reported less physical and sexual abuse and better overall family relations than Cluster 2 members. Individuals with this configuration are likely to have long-standing neurotic difficulties, and a depressive character style that is resistant to change. As was the case with participants in Cluster 2, Cluster 3 members showed elevated 4 and six scales, indicating a likelihood to externalize their present difficulties. Given that patient self-exploration has been found to be an important factor for positive therapeutic outcome (e.g. Marmar, Weiss, & Gaston, 1989), such resistance could be addressed early on in treatment. Their prognosis is likely to be better than those in Cluster 2, a point further corroborated by the less elevated TRT scale. Similar problems to Cluster 2 may arise therapeutically, in that they are not likely to get the quick fix solution to their problems for which they may be hoping. These issues may thus be addressed therapeutically to make more realistic expectancies of treatment progress.

Cluster 4's mean profile suggests these individuals will be suspicious and guarded towards others. As is the case with Cluster 1, their problems may not be of a very severe nature. The MMPI-2 is perhaps reflecting a personality style that seems to be a hindrance to psychotherapeutic progress. They are unlikely to be open and revealing to their therapist regarding with their problems. Patient openness has consistently been related to positive outcome (e.g., Henry et al., 1990) and an important part of establishing a positive working alliance. The inherent mistrust will impede the establishment of a productive therapeutic alliance. While not a statistically significant finding, this group reported the greatest extent of childhood sexual abuse, further suggesting that these individuals will

have problems trusting individuals with intimate emotions. Recognizing these factors, a clinician can become particularly sensitive to issues of trust that may arise in the therapeutic setting. Using the MMPI-2 to broach the issue of possible early termination or mistrust may be a way of communicating that the therapist understands these possibilities and is concerned about the client's welfare. This could help establish a positive working alliance between the client and therapist that might otherwise have been absent.

Individuals within Cluster 5 seem to be the most unlikely of all profiles. Individuals with the spiked 2 profile are typically quite responsive to psychotherapy. Nonetheless, they do pose characteristics that may cause treatment to move slowly. The high 2 in combination with the low 9 reflect that these individuals are rather drained emotionally and pessimistic about the future. The moderately elevated 0 signals the therapist to these clients withdrawn and introverted nature. They may lack the requisite social skills necessary to engage in conversations related to their psychological difficulties. Conversational engagement has been shown to be related to outcome (Henry, Schact & Strupp, 1990). The therapist's knowledge of these problems may lead to a discussion of the individual's difficulty within the therapeutic setting. For instance, issues such as alienation and shame may be contributing to this group's difficulty in treatment. Open and frank discussion of these issues between the therapist and client may lead to an improved therapeutic relationship in which the client feels invited to discuss the difficulties they experience in everyday life.

The lack of significant scale elevations in Cluster 1 and 4 are difficult to understand, given the sample of individuals deemed to be progressing slowly in

treatment. However, research indicates that this phenomenon is quite unexpected. For example, a cluster of normal profiles has been found to exist in the cluster analyses of MMPI's in a sample of homicide offenders (Kalichman, 1988) and individuals suffering from drug addictions (Beliding, Iguchi, Morral & Husband, 1998). Also, reasons for progressing poorly in treatment are, undoubtedly, numerous. In the present context, it may be that the MMPI-2 is not helpful in picking up on these individuals' pathology, nor in determining what might be impeding the treatment. Additionally, people who are not reporting a great deal of distress are less likely to be motivated for far-reaching treatment gains, and thus progress may seem slow or poor to a therapist wondering what to treat. Finally, we should not dismiss the role of therapist and contextual variables in the poor progression of clients seeking treatment.

*Future Directions/ Limitations of Study*

While discovering the existence of certain profile configurations or codetypes is an important step in using the MMPI-2 in the identification and psychological treatment of those deemed to be progressing slowly in treatment, it is but a preliminary one. First, we need to determine the accuracy of our MMPI-2 interpretations. This could be done through gaining access to process notes, presenting complaints and other clinical data of these individuals to determine if characteristics reflective of their MMPI-2 profiles are indeed occurring for these clients. Validity data regarding the accuracy of profile interpretations, especially in regard to treatment progress, is lacking in the present MMPI-2 literature.

Secondly, the nature of cluster analysis is descriptive. Clusters are chosen based upon their utility in suggesting meaningful groupings of cases; each clusters' validity is therefore not determined statistically. Validity issues still remain with regard to these clusters, but future research is currently underway to determine whether these group profiles are specifically indicative of consistent difficulty in treatment. It may be that these profiles occur frequently in populations of all clients, not just in a population of those progressing poorly. By looking at the ability of these profiles to predict difficulty in psychotherapy claims regarding a profile's treatment prognosis can be made more tenable. We are currently in the midst of analyzing the differences among a sample of individuals progressing well, poorly and moderately in treatment and seeing if profile types such as the ones indicated in this study are occurring more in the poor progressing group than in the other groups.

Finally, as mentioned in various parts of this paper, this study focuses solely on patient variables role in the poor progression of psychotherapy clients. We realize that therapeutic progress is multiply determined; therapist variables and the role of contextual variables can not be ignored or under-emphasized. Nonetheless, it may be possible to discover MMPI-2 profiles that consistently progress poorly regardless of the treatment modality or therapist style. Our research has hopefully taken a step in realizing that possibility.

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# APPENDIX

Table 1.
Cluster by MMPI-2 Clinical and Validity Scales Means and Standard Deviations.

| | L | F | K | Hs | D | Hy | Pd | Pa | Pt | Sc | Ma | Si |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **One** | 47 | 50 | 51 | 47 | 56 | 50 | 56 | 51 | 48 | 51 | 58 | 42 |
| **N=30** | 8 | 10 | 9 | 9 | 7 | 11 | 9 | 8 | 5 | 7 | 9 | 7 |
| **Two** | 44 | 86 | 40 | 74 | 81 | 76 | 78 | 78 | 84 | 87 | 63 | 63 |
| **N=56** | 8 | 22 | 8 | 8 | 9 | 10 | 10 | 12 | 8 | 11 | 12 | 11 |
| **Three** | 47 | 67 | 45 | 60 | 76 | 62 | 66 | 65 | 76 | 73 | 51 | 63 |
| **N=54** | 9 | 13 | 9 | 10 | 7 | 11 | 9 | 12 | 8 | 10 | 9 | 11 |
| **Four** | 47 | 61 | 46 | 54 | 56 | 58 | 64 | 63 | 63 | 64 | 63 | 47 |
| **N=35** | 7 | 12 | 9 | 10 | 6 | 11 | 8 | 8 | 7 | 8 | 9 | 10 |
| **Five** | 51 | 55 | 47 | 52 | 66 | 55 | 58 | 59 | 62 | 57 | 45 | 59 |
| **N=35** | 10 | 9 | 8 | 9 | 6 | 7 | 9 | 10 | 8 | 7 | 8 | 7 |
| **Total** | 47 | 67 | 45 | 60 | 68 | 62 | 66 | 65 | 70 | 69 | 56 | 57 |
| **N=210** | 9 | 20 | 9 | 13 | 14 | 14 | 12 | 14 | 14 | 16 | 12 | 12 |

Table 2.
Cluster By Age and Grade Point Average Means and Standard Deviations.

| Cluster | Age | Grade Point Average |
|---|---|---|
| **One** | 25.74 (7.96) | 3.36 (.54) |
| **Two** | 23.09 (4.82) | 2.91 (.73) |
| **Three** | 25.59 (7.23) | 3.13 (.60) |
| **Four** | 24.86 (5.53) | 3.02 (.63) |
| **Five** | 22.41 (4.31) | 3.12 (.67) |

Table 3.
Cluster by Family Abuse Scores Means and Standard Deviations.

| Cluster | Overall Family Rating | Child Physical Abuse | Child Sexual Abuse | Adult Physical Abuse | Adult Sexual Abuse |
|---|---|---|---|---|---|
| **One** | 2.89 (.88) | .27 (.83) | .38 (1.18) | .00 (.00) | .30 (1.15) |
| **Two** | 3.83 (.86) | 1.58 (1.98) | .93 (1.69) | .68 (1.5) | .71 (1.69) |
| **Three** | 3.18 (.85) | .40 (1.13) | .53 (1.37) | .33 (1.16) | .09 (.69) |
| **Four** | 3.26 (1.07) | .66 (1.28) | 1.09 (1.82) | .4 (1.17) | .34 (.84) |
| **Five** | 2.33 (.89) | .00 (.00) | .17 (.71) | .00 (.00) | .14 (.84) |

Table 4.
Cluster by Content Scale Means and Standard Deviations.

| Cluster | ES | MAC-R | TRT | FAM | ANG | CYN |
|---|---|---|---|---|---|---|
| **One** | 53.77 | 51.83 | 46.94 | 58.2 | 49.94 | 48.41 |
| | (7.7) | (12.2) | (7.9) | (10.2) | (5.7) | (7.1) |
| **Two** | 22.5 | 49.89 | 71.75 | 69.19 | 64.52 | 58.03 |
| | (10.14) | (13.3) | (11.3) | (11.8) | (9.6) | (10.9) |
| **Three** | 33.66 | 42.74 | 62.67 | 59.54 | 56.26 | 51.89 |
| | (7.9) | (9.9) | (12.2) | (12) | (11.9) | (10.9) |
| **Four** | 43.63 | 51.57 | 52.8 | 60.3 | 59.48 | 51.86 |
| | (9.7) | (11.9) | (10) | (9.2) | (13.5) | (8.7) |
| **Five** | 45.24 | 38.1 | 51.67 | 53.91 | 53.47 | 48.06 |
| | (9.3) | (7.8) | (8.6) | (7.9) | (8.9) | (5) |

# Vita

Dennis Plant was born in North Tarrytown, NY on April 19, 1972. He attended schools in the public system of Darien, Connecticut, the Fairfield County Public School System, where he graduated from Darien High School in 1990. He entered Vanderbilt University, Nashville, Tennessee during August of 1990 where in August of 1994 he received the Bachelor of Arts in Psychology. After graduation, he spent three years working at the Vanderbilt University Diabetes Research and Training Center as a research associate, running clinical experiments and analyzing statistical data on adolescents and adults with diabetes mellitus. In August of 1997, he entered the Doctoral program in Clinical Psychology at the University of Tennesse, Knoxville. During this time, he has worked as a research assistant for the University of Tennessee, Knoxville and as a clinical psychology trainee in the University of Tennessee Psychological Clinic.

He is presently working as a clinical psychology associate for Cherokee Health Systems in Talbott, Tennessee and continues his work at the University of Tennessee Psychological Clinic. He also works as a research assistant for the Knoxville Adolescent Development Project, collecting data and interviewing families as part of an ongoing federally funded research project.