

## **Personality Profiles of Trauma Survivors<sup>1</sup>**

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*Previous research has documented the high rate of comorbidity among persons diagnosed with Posttraumatic Stress Disorder (PTSD). The present study attempted to extend previous research by examining levels of personality disorders among those who do and those who do not have PTSD and among those who have experienced a substantially greater number of events. A profile analysis revealed that persons with PTSD differed from those without PTSD on profile elevation and shape. Those with PTSD had higher profiles overall and were significantly higher in levels of borderline, narcissistic, paranoid, passive-aggressive, self-defeating, and schizotypal personality. Those with PTSD were significantly higher on Cluster A and B personality disorders but did not differ on level of cluster C disorders. A parallel set of tests comparing those who had experienced a significant number of events (>5) with those who had experienced fewer events (1-5) revealed that profile of these two groups differed in elevation and parallelism. Those who had experienced more events had higher elevations overall and were significantly higher on levels of antisocial, borderline, and narcissistic personality.*

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KEY WORDS: Posttraumatic Stress Disorder, Personality Disorders, Profile Analysis

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#### **Personality Profiles of Persons Experiencing Different Types and Numbers of Trauma**

At first blush, Posttraumatic Stress Disorder (PTSD: American Psychiatric Association, 1994) would appear to be a relatively straightforward disorder to conceptualize. Following a traumatic event that is threatening to one's physical or psychological integrity a characteristic group of symptoms emerges. These symptoms include intrusive unwanted recollections of the event, attempts to drive these recollections from consciousness, and elevated levels of arousal. Soon after PTSD was recognized in the diagnostic nomenclature in the third edition of the Diagnostic and Statistical Manual (DSM-III: American Psychiatric Association, 1980), it became apparent that the complex of symptoms and disorders that are coincident with PTSD was much more elaborate.

Numerous studies have documented that a variety of Axis I disorders co-occur with PTSD. The majority of these studies have focused on comorbidity among combat veterans with PTSD (Engdahl, Speed, Eberly, & Schwartz, 1991; Kulka, Schlenger, Fairbank, Hough, Jordan, Marmar, & Weiss, 1990; Orsillo, Weathers, Litz, Steinberg, Huska, & Keane, 1996; Sierles, Chen, McFarland, & Taylor, 1983; Sierles, Chen, Messing, Besyner, & Taylor, 1986; Skodol,

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<sup>1</sup>I would like to express my thanks to Drs. Scott Vrana, Rebecca Davis Merritt, E.J. Capaldi, and Eliot Smith for their thoughtful comments throughout this project.

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Schwartz, Dohrenwend, Levav, Strout, & Reiff, 1996). More recently, studies have also addressed comorbidity among persons who have experienced other types of trauma including natural disasters (Green, Lindy, Grace, & Leonard, 1992; McFarlane & Papay, 1992), civil unrest (Loughrey, Bell, Kee, Roddy, & Curran, 1988), and non-clinical samples experiencing a wide range of trauma (Davidson, Hughes, Blazer, & George, 1991; Shore, Vollmer, & Tatum, 1989). A recent literature review (Deering, Glover, Ready, Eddleman, & Alarcon, 1996) examined the co-occurrence of PTSD and other disorders among persons who had experienced different types of trauma. These authors concluded that substance abuse, depression, and generalized anxiety are frequently reported comorbid disorders. Panic disorder and phobias appear to be more common among some types of trauma survivors (e.g., combat veterans assigned to particularly dangerous duty, rape victims, and firefighters working with intense bush fires). Somatization Disorder is less frequently reported and it seems to be linked to level of physical suffering. Psychotic disorders are more prevalent among combat veterans but similar studies of non-combat groups have revealed mixed results with some indicating high rates of comorbidity and others showing low levels. These authors also examined rates of Axis II (personality) disorders and concluded that very few studies have examined these disorders. In general they concluded that studies examining rates of personality disorders among combat veterans have found relatively high rates of comorbidity but this has not been found for non-combat related PTSD.

The few studies that have examined comorbidity of Axis II disorders and PTSD focused primarily on Antisocial Personality Disorder (e.g., Kulka et al., 1990; Orsillo et al., 1996) and Borderline Personality Disorder (e.g., Orsillo et al., 1996). The most comprehensive study currently available (Southwick, Yehuda, & Giller, 1993) examined the comorbidity of Axis II disorders in a group of 68 combat veterans with PTSD. Personality disorder (PD) diagnoses were obtained using a clinical interview. In addition, these authors also administered a self-report measure of personality disorder symptomatology. As a group, PTSD patients showed a high rate of borderline, obsessive-compulsive, avoidant, and paranoid PD. There was a marked discrepancy between the interview and the questionnaire data on the level of Schizoid PD. On both measures the participants often reported a number of schizoid symptoms such as choosing solitary activities, having no close friends, and receiving no enjoyment from close relationships. However on the nonself-report measure (Personality Disorder Examination), the clinical determination of Schizoid PD also relies heavily on rater's observation of constricted affect, aloofness, coldness, or indifference, which was seldom observed in this group of patients. Thus, the self-report data suggest higher levels of schizoid traits than did the clinician ratings.

When taken together, these studies suggest that PTSD co-occurs with a host of different psychological disorders. Perhaps there is considerable heterogeneity among persons with PTSD. For this reason, it might be beneficial to identify personality profiles of trauma survivors who develop PTSD.

### **Studies examining personality profiles of trauma survivors**

Several studies have examined the personality profiles of trauma survivors. They have used a variety of measures including the MMPI (Engdahl et al., 1991) various version of the MCMI (Craig & Olson, 1997; Hyer, Davis, Albrecht, Boudewyns, & Woods, 1994; Hyer, Woods, & Boudewyns, 1991; Piekarski, Sherwood, & Funari, 1993), Personality Assessment

Inventory (PAI) (Cherepon & Prinzhorn, 1994) and the self-report section of the SCID (Richman & Fruech, 1996).

One of the first studies of this type examined the MMPI profiles of 62 former WW-II POWs (Engdahl et al., 1991). Profiles for participants in each of the following categories were examined: currently have PTSD, recovered from PTSD, never had PTSD, have another psychiatric illness, have no psychiatric illness. The pattern of scores for the groups revealed that persons with current PTSD were most elevated followed by those who had recovered from PTSD, those with a psychological disorder other than PTSD, and those free from all psychological symptoms. Statistically significant differences in elevations were observed for Hypochondriasis, Depression, Psychasthenia, and Ego Strength. These elevations suggest that POWs with current PTSD were less well adjusted than either POWs with no psychiatric history or POWs with a psychiatric history other than PTSD. While providing interesting results, this study is somewhat limited because of the nature of the sample (male former POWs from WW-II) and as a result it is difficult to know whether the findings from this study will generalize to other groups of trauma survivors. However, a study by Schwarz and Kowalski (1992) examining personality characteristics and posttraumatic stress symptoms following a school shooting also found that elevations in psychasthenia were associated with elevations in PTSD symptoms. Schwarz and Kowalski also found that elevations in guilt/resentment and insecurity were associated with PTSD symptoms.

Several studies have used some version of the MCMI to identify profiles of trauma survivors with PTSD. Hyer et al. (1991) using a sample of Vietnam combat veterans with PTSD concluded that there was a parent trauma profile (8-2) and three subtypes, differentiated by the presence of schizoid, dependent, and antisocial features. In a subsequent follow-up, Piekarski et al. (1993) examined the MCMI profiles of 250 treatment-seeking combat veterans some of whom had PTSD. A cluster analysis was used to form distinct subgroups of trauma survivors. Four subgroups were identified: 1. aggressive high stress group (8-2-1/6), 2. dependent high stress group (2-8-1-3), 3. subclinical stress group (8-2), and 4. aggressive low stress group (6/8-5). The aggressive high stress group was the largest group (56%) followed by the aggressive low stress group (16%), and the dependent high stress group and subclinical stress group (13% each). The dependent high stress group was clearly the most distressed group. This group equaled or exceeded the values obtained by persons in the other clusters for 12 of 20 scales.

A more recent study (Hyer et al., 1994) presents the results of two studies of the MCMI and MCMI-II profiles of combat veterans with PTSD. Profiles were identified using a cluster analysis of the personality scales. The resulting clusters were then compared on level of symptomatology using the MMPI and the MCMI symptom scales.

Study 1 identified three clusters labeled Traumatic Personality (8-2), Schizoid Influence (8-2-1), and Antisocial Influence (8-6). These three clusters were compared on the MMPI scales and the MCMI symptom scales. The general conclusion of this study was that the antisocial influence group possess less pathology, over report less, and have less PTSD than the other two clusters.

The cluster analysis of the MCMI II (study 2) yielded 4 clusters labeled antisocial style (6A-6B-8A), self-defeating influence (1-2-8A-8B), subclinical-schizoid influence (1), and global (1-2-6A-6B-8A-8B). These four clusters were then compared on the MCMI symptom scales and

the MMPI scales. The subclinical cluster was high on both dysthymia and psychotic level scales of depression and psychotic thinking. Because this cluster had no defined characterological problems and had symptoms that are severe, it was seen as a more classic PTSD group. The antisocial cluster had scale elevations reflective of inner turmoil (anxiety, dysthymia, and psychotic thinking).

These two studies obtained somewhat different clusters with the MCMI II identifying an additional cluster reflecting self-defeating tendencies. This may be because of differences between the measures or because of differences in the samples. However, the idea of identifying different subtypes of PTSD is provocative.

The most recent study to examine the utility of the MCMI (Craig & Olson, 1997) compared the MCMI-III profiles of 32 substance abusers with PTSD with 228 substance abusers without PTSD. All participants were African American men. The patients with PTSD were higher on virtually all scales except Antisocial Personality Disorder, Aggressive/Sadistic, Bipolar, Alcohol Dependence, and Drug Dependence. The patients with PTSD had lower scores than non-PTSD patients on the following scales: Desirability, Histrionic, Narcissistic, and Compulsive. A stepwise multiple regression was done to evaluate which scales best predicted PTSD. The three best predictors were PTSD, Histrionic, and Disclosure. This sample did not show the same 8A2 profile seen in previous studies using the MCMI-I and MCMI-II — rather it showed a Schizoid-Antisocial (16A) profile for people with substance abuse and PTSD and an Antisocial (6A) profile for people with substance abuse and no PTSD.

The personality Assessment Inventory (Morey, 1991) has also been used to compare the profiles of 44 adult Caucasian women who were abuse survivors with 47 women who had a primary affective disorder but did not have a history of abuse (Cherepon, & Prinzhorn, 1994). The trauma survivors were significantly higher on Negative Impression (abused group presented selves in negative light), Anxiety-Related Disorders, Obsessive Compulsiveness, Phobias, Traumatic Stress, Paranoia, Hypervigilance, Resentment, Borderline Features, Affective Instability, Identity Problems, Negative Relationships, Alcohol Problems, and Treatment Rejection (abuse survivors are less likely to reject treatment). Overall, the PAI profiles resembled Morey's cluster 2. Morey described persons in this cluster as depressed, withdrawn, alienated, resentful, helpless, and unhappy with life circumstance and with the effects of past/present life events. However, Morey noted that in the normative sample persons in this cluster were not seen as manipulative or antagonistic whereas the abused sample in this study had higher levels of acting-out and borderline tendencies, which are suggestive of manipulateness and antagonism.

Richman and Frueh (1996) compared the personality profiles of 42 male Vietnam combat veterans with PTSD with 51 patients with another anxiety disorder and 16 patients with major depressive disorder using the SCID-II self-report. These authors pointed out that multiple diagnoses of personality disorders (PD) are the rule rather than the exception both among PTSD patients and among patients with other disorders. "Given the considerable overlap and co-occurrence of PDs, we suggest that a knowledge of "subthreshold" PD (i.e., presence of various traits) can be valuable to the clinician/researcher as a knowledge of PD diagnoses." (p. 287). They provided a personality profile of PTSD-diagnosed Vietnam combat veterans based on the 11 DSM-III-R PD categories. The SCID-II self-report was used to assess symptoms of personality disorders. The authors note that this measure may produce false positives but it can

allow for an assessment of relative levels of DSM-III-R PD symptomatology. The three groups were compared on all personality disorders and on clusters A, B, and C using a profile analysis.

The first set of analyses compared the PTSD and Anxiety Disorder groups. The PTSD group's personality profile was higher overall than the anxiety disorder group. The PTSD group's personality profile also differed from the anxiety disorder group profile in terms of configuration (measured by level of parallelism). The PTSD group had higher scores on borderline, schizotypal, paranoid, and schizoid personalities. The anxiety group was higher than the PTSD group on Histrionic Personality Disorder. The PTSD group's cluster profile (A, B, and C) differed from the anxiety disorder group in terms of configuration (measured by level of parallelism). The PTSD group was higher on cluster A than the other two groups.

Next they compared the patients with PTSD to the patients with Major Depressive Disorder (MDD). The PTSD group's personality profile overall was higher than the MDD group. The PTSD group's personality profile differed from the MDD group profile in terms of overall configuration (parallelism). The PTSD group had higher scores on schizotypal and paranoid personality disorders. Several other scores approached significance including: schizoid, avoidant, and borderline PD. The PTSD group's cluster profile did not differ significantly from the MDD group profile in terms of overall elevation but did differ in configuration. The PTSD group was higher on cluster A than the other two groups. These authors noted a strong cluster A (odd eccentric group) effect. This was surprising since one would expect a cluster C effect since these disorders are characterized by anxiety. These authors suggested that future studies might utilize better researched measures, such as the MCMI or the Personality Diagnostic Questionnaire-Revised (PDQ-R: Hyler & Rieder, 1987).

There are several inherent weaknesses in the extant literature. First, a substantial proportion of studies examining the personality profiles of trauma survivors have used some variant of the MCMI. While the MCMI has scales that bear labels identical to those included in the DSM, the actual symptoms contained in those scales differ somewhat from those included in the DSM. Similar issues emerge with other measures used in these types of studies. A second weakness is that much of the research examining profiles of trauma survivors has focused on combat veterans. The present study examined the personality profiles of persons who had experienced a wide range of numbers and types of traumatic events. Following the recommendations of Richman and Frueh (1996), it used the PDQ-R (Hyler & Rieder, 1987) a well validated measure of personality disorder symptomatology that is directly tied to the DSM-III-R diagnostic criteria. Also consistent with Richman and Frueh, personality disorders were measured continuously rather than dichotomously. While this is somewhat inconsistent with the DSM-based diagnostic system, even the DSM-IV recognized that "dimensional systems increase reliability and communicate more clinical information (because they report clinical attributes that might be subthreshold in a categorical system)" (p. xxii). Moreover, it is believed that this is a valuable strategy since many clinicians conceptualize personality disorders along a continuum.

## Method

### Participants

The research participants were 402 (225 men and 177 women) undergraduate students. They were enrolled in an introductory psychology course and received course credit for their participation. This sample has been described extensively elsewhere (Lauterbach & Vrana, 1998). About 80% ( $n = 323$ ) of the participants reported experiencing at least one event of sufficient intensity to potentially elicit symptoms of PTSD. Multiple traumatic events were frequently reported in this sample. Forty percent ( $n = 162$ ) reported experiencing 0-1 events, 34% ( $n = 135$ ) reported experiencing 2-3 events, 20% ( $n = 81$ ) reported experiencing 4-6 events, and 6% ( $n = 24$ ) reported experiencing 7-12 events.

### Measures

The Traumatic Events Questionnaire (TEQ). The TEQ (Vrana & Lauterbach, 1994) assesses experiences with 9 specific types of traumatic events (accidents, natural disasters, crime, child abuse, rape, adult abusive experiences, witnessing the death/mutilation of someone, being in a dangerous/life threatening situation, receiving news of the unexpected or sudden death of a loved one) reported in the DSM-III-R and the empirical literature as having the potential to elicit posttraumatic stress symptoms. In addition, two residual categories are included, allowing respondents to report any other very traumatic event not listed and events that are so traumatic that they cannot discuss them.

Personality Diagnostic Questionnaire-Revised (PDQ-R). The PDQ-R (Hyler & Rieder, 1987) is a 152-item true/false questionnaire that assesses symptoms of all 11 recognized personality disorders as well as two proposed personality disorders (Self-Defeating and Sadistic). The diagnostic criteria contained in the PDQ-R precisely match those listed in the DSM-III-R. Respondents are asked to think about how they have tended to feel, think, and act over the last several years when responding to the individual items. The PDQ-R possesses high sensitivity (typically greater than .80) and moderate specificity (.60-.90) for most DSM-III-R personality disorders.

The present study incorporated two changes in the PDQ-R. Item 5b in the Borderline Personality Disorder section which originally read "I often hurt myself accidentally" was changed to read "I have attempted to harm myself." This item was written to assess suicide attempts/gestures and the changed item more accurately reflects the question's intent. To increase the range of potential scores within each personality type, the response format was changed from forced choice to a 1-7 likert scale anchored by "Not at All" and "A lot."

Purdue PTSD Scale-Revised (PPTSD-R). The PPTSD-R (Lauterbach & Vrana, 1996) is a 17-item scale that assesses symptoms of Posttraumatic Stress Disorder. Each item of the PPTSD-R corresponds to one of the DSM-III-R PTSD symptoms. Respondents rate the frequency of occurrence of each symptom on a 1-5 scale anchored by "Not at all" and "often" with an intermediate rating labeled "sometimes." The psychometric properties of the PPTSD-R are quite good. The PPTSD-R is highly internally reliable ( $r = .91$ ), its scores are stable over time (two week test-retest  $r = .91$ ), it can distinguish between persons who were and were not traumatized, and can distinguish between persons experiencing different types of traumas (Lauterbach & Vrana, 1996).

## **Procedure**

The research participants first completed a demographics questionnaire followed by the PDQ-R. They then completed the TEQ, assessing the presence/absence of various traumatic events and the severity of those events. Those experiencing multiple events judged which was the most traumatic, and those experiencing none of the events briefly described the most traumatic thing to ever happen to them. These latter persons were classified as experiencing "no event" for the purposes of this study. Participants then completed the measure of traumatic stress (PPTSD-R) based on the most traumatic event they had experienced. Several additional questionnaires were administered that are not the focus of this paper.

## **Group Assignment**

Trauma exposure, assessed by the TEQ, combined with symptom ratings on the PPTSD-R were used to assign diagnoses. Persons who reported experiencing a significant traumatic event on the TEQ and maximally endorsed one or more reexperiencing symptom, three or more avoidance symptoms, and two or more arousal symptoms were classified as PTSD positive. Using these criteria, 13 persons (9 women, 4 men) were placed in the PTSD group. A wide range of trauma were reported by this group including: crime, childhood abuse, rape, being abused as an adult, being in a dangerous life threatening situation, experiencing the violent or very unexpected death of a loved one, experiencing an event too difficult to discuss, and experiencing some other event. An additional 20 persons (14 women, 6 men) were one symptom short of the full diagnostic criteria.

## **Data Analysis**

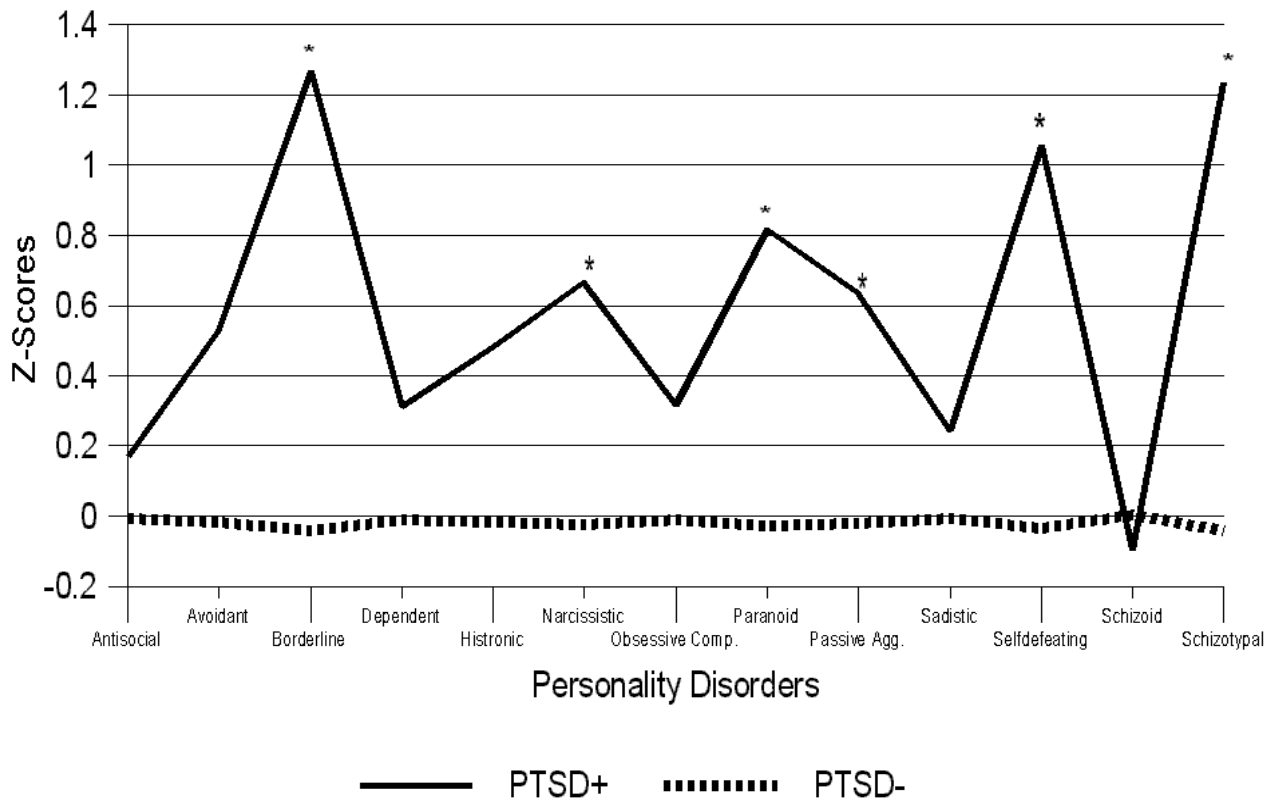
A series of profile analyses were used to compare those with PTSD to those without PTSD and to compare persons who have experienced different numbers of traumatic events. In a profile analysis, it is possible to test for overall differences between the groups, the parallelism of the profiles, and to compare the groups on specific personality disorder scales. A fundamental assumption of profile analysis is that each dependent variable is measured on the same scale. Therefore, all scores were transformed to z-scores.

## **Results**

### **Profiles of those with and those without PTSD**

The first series of analyses compared those with and those without a presumptive diagnosis of PTSD on their personality disorder profiles. Specifically, these two groups were compared on level of parallelism, overall level of elevation, and differences between the groups on specific personality disorder scales. Figure 1 illustrates the personality profiles of those with and those without PTSD. Using the Wilks' criterion, these two groups produced personality profiles that differed significantly in parallelism  $F(12, 385) = 3.203, p < .0005$ . As expected, the PTSD group had significantly higher personality profiles than the nonPTSD group  $F(1, 396) = 12.89, p < .0005$ . Persons with PTSD were significantly higher on levels of borderline, narcissistic, paranoid, passive-aggressive, self-defeating, and schizotypal personality. (All contrasts significant at  $p < .03$ .)

Figure 1



\* All contrasts significant  $p < .03$

Previous literature suggests that those with and those without PTSD differ on levels of the three personality disorder clusters. To examine whether these two groups differed, a summary score was computed for the three personality disorder clusters and z-scores were computed. Persons with and without PTSD were compared using a profile analysis. Using the Wilks' criterion, these two groups produced personality cluster profiles that did not differ on parallelism  $F(2, 396) = 1.804, p > .05$ . However, as expected those with PTSD produced cluster profiles that were higher overall than those without PTSD  $F(1, 397) = 14.123, p < .0005$ . Persons with PTSD were significantly higher on Cluster A and Cluster B, but did not differ on Cluster C. These findings are consistent with those of Richman and Frueh (1996).

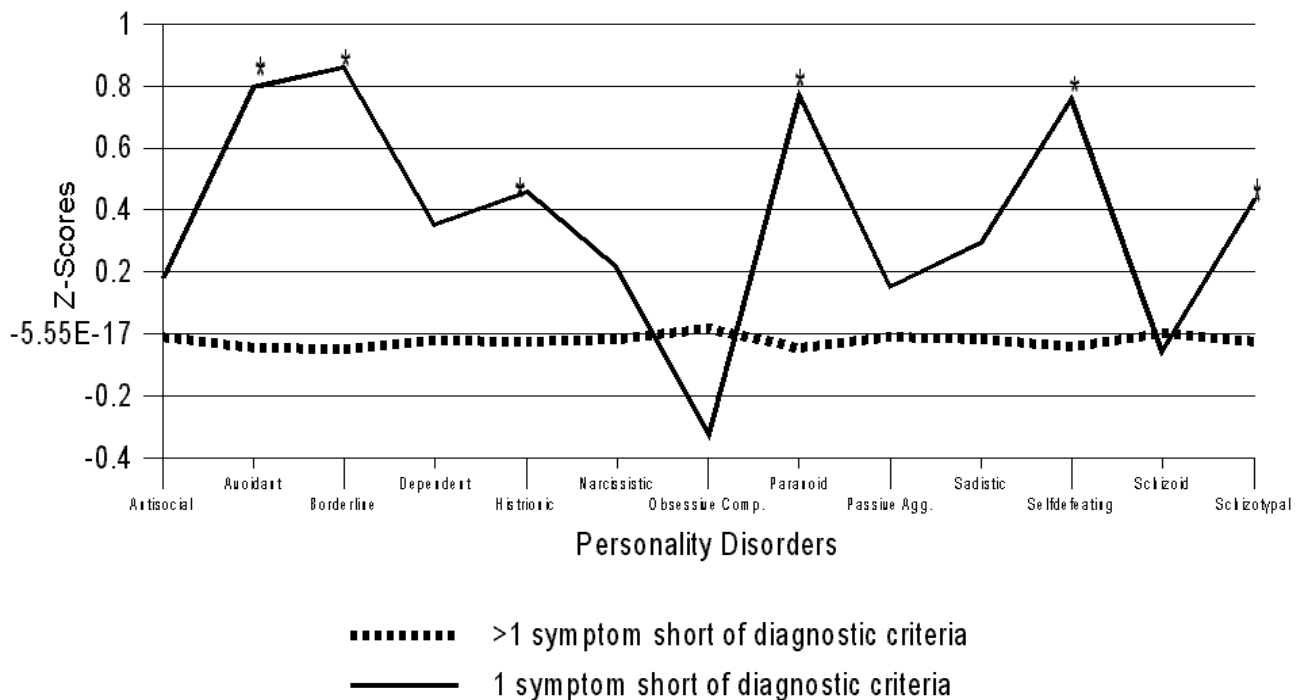
### Profiles of persons one symptom short of PTSD

The criteria used to assign participants to the PTSD group were fairly stringent. For this reason, it was decided to compare persons who were close to meeting diagnostic criteria with the remainder of the sample. Persons who met full diagnostic criteria were omitted from this sample and z-scores were recomputed based on the new sample. These two groups were then compared using the procedures outlined previously. Figure 2 illustrates the personality profiles of those close to meeting diagnostic criterion and the comparison group. Using the Wilks'

criterion, these two groups produced personality profiles that differed in parallelism  $F(12, 372) = 3.947$ ,  $p < .0005$ . As expected, the group that was one symptom short of PTSD diagnosis had significantly higher personality profiles than the comparison group  $F(1, 383) = 8.206$ ,  $p < .005$ . Persons with PTSD were significantly higher on levels of avoidant, borderline, histrionic, paranoid, self-defeating, and schizotypal personality. (All contrasts significant at  $p < .05$ .)

The next set of analyses collapsed across specific personality disorders and compared these two groups on the three personality disorder clusters. Using the Wilks' criterion, these two groups produced personality profiles that did not differ in parallelism  $F(2, 383) = .732$ ,  $p > .05$ . As expected, the group that was one symptom short of a PTSD diagnosis had a significantly higher cluster profile than the comparison group  $F(1, 384) = 8.588$ ,  $p < .005$ . Persons in the high PTSD group were significantly higher on Clusters A and B, but did not differ on Cluster C. (All contrasts significant at  $p < .02$ .)

**Figure 2**



\* All contrasts significant  $p < .05$

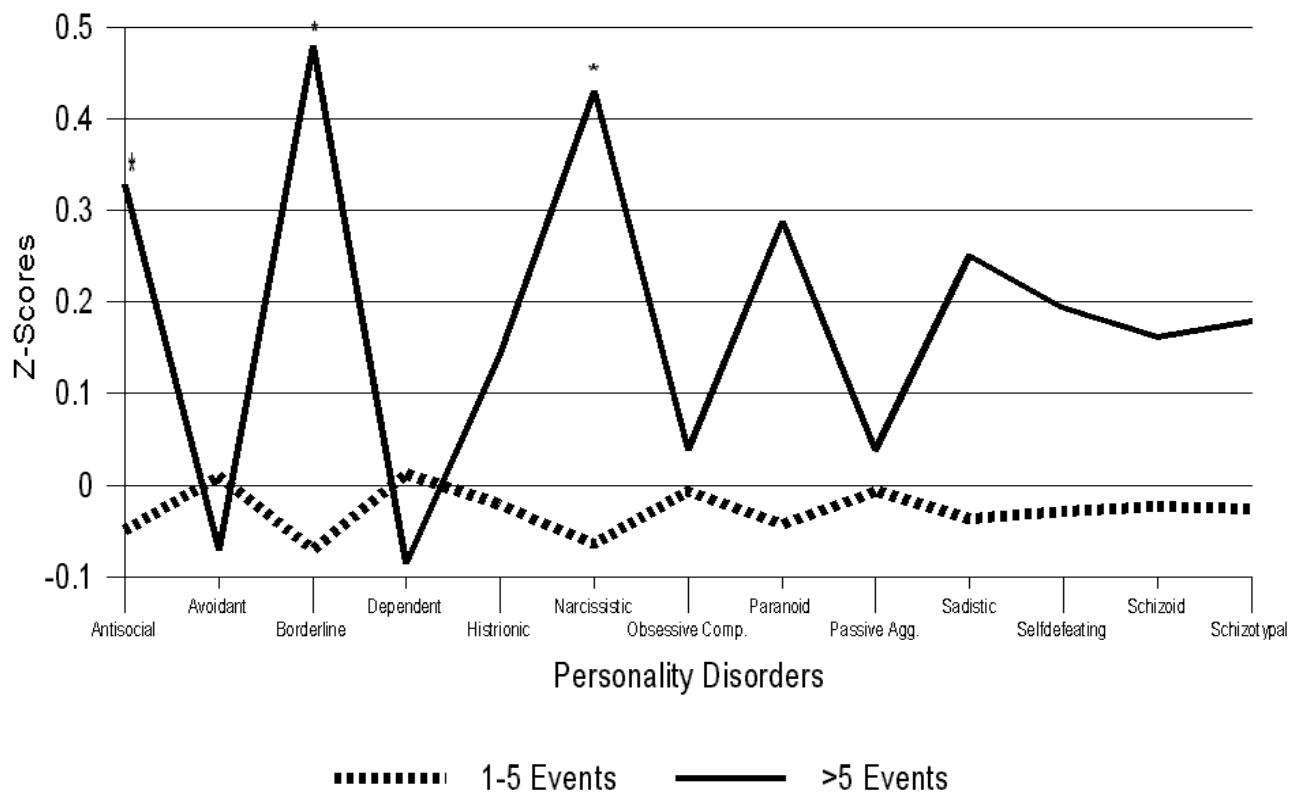
### Profiles of those exposed to numerous traumatic events

As mentioned earlier, participants in this study differed substantially in the number of traumatic events to which they had been exposed. To examine the relationship between the number of traumatic events to which one has been exposed and personality profile, two groups

were formed (1-5 events,  $n = 282$ , men = 156, women = 126; 6-12 events,  $n = 41$ , men = 26, women = 15) based on the number of events they had experienced. Persons who had experienced no events were omitted from this series of analyses and all z-scores were recomputed using this sample. Figure 3 illustrates the personality profiles of these two groups. Using the Wilks' criterion, these two groups produced personality profiles that differed on parallelism  $F(12, 305) = 1.985, p < .03$ . As expected, persons exposed to a greater number of traumatic events had significantly higher personality profiles than those exposed to fewer events  $F(1, 316) = 4.166, p < .05$ . Persons with high trauma exposure were significantly higher on levels of antisocial, borderline, and narcissistic personality. (All contrasts significant at  $p < .03$ .)

These two groups were next compared on levels of the three personality disorder clusters. These two groups produced profiles that differed in parallelism  $F(2, 316) = 6.47, p < .005$ , and elevation  $F(1, 317) = 3.946, p < .05$ . Those exposed to a greater number of traumatic events produced cluster profiles that were higher overall than those exposed to fewer events. Persons exposed to a greater number of traumatic events were significantly higher on Clusters A and B, but did not differ on Cluster C.

**Figure 3**



\* All contrasts significant  $p < .03$

## Discussion

Previous studies have very clearly illustrated that a wide range of Axis I disorders may emerge following a traumatic event. (See Deering et al., 1996 for a review.) Previous literature, however, has been less clear regarding the comorbidity of PTSD and Axis II disorders. The current study extended existing literature in illustrating that the severity of personality disorder symptoms covaries with PTSD severity. However, it is not the case that all personality disorders are elevated among those with PTSD. Rather, a characteristic pattern of elevations emerges coincident with PTSD. Persons who develop PTSD are likely to have personality disorder profiles that are elevated relative to the general population. They are significantly different in levels of borderline, narcissistic, paranoid, passive-aggressive, self-defeating, and schizotypal personality. When collapsing across specific personality disorders and examining the personality disorder clusters as outlined in the DSM-IV, it was found that those with PTSD were significantly higher than the remainder of the sample on Cluster A (odd, eccentric cluster), and Cluster B (dramatic cluster), but not Cluster C (anxious cluster). This finding was somewhat surprising since PTSD is classified as an anxiety disorder one would expect that it would be coincident with other anxiety disorders. However, others have also found elevations in Cluster A to co-occur with PTSD (Richman & Frueh, 1996).

The relative elevations in Cluster A have profound implications for the course and prognosis of PTSD. Persons with Cluster A types of personality disorders (paranoid, schizoid, and schizotypal) often have profound interpersonal difficulties. These difficulties may be because of high levels of distrust (paranoid personality), lack of desire for close relationships (schizoid personality), or because of peculiarities of ideation, appearance, and behavior (schizotypal personality). Social support has consistently been found to buffer the impact of a trauma and speed recovery (e.g., Kutter, Powell, & Geis, 1997). These Cluster A elevations that college students with emergent PTSD are likely to experience suggests particular difficulty obtaining the emotional support that is essential to recovery. Moreover, these difficulties are likely to be due to distrust or peculiarities of ideation, appearance, or behavior and not a lack of desire since these groups differed in paranoid, and schizotypal personality but not schizoid personality. These results are consistent with Craig and Olson (1997) who found that disclosure was among the best predictors of PTSD.

A slightly different pattern of elevations emerged when comparing those who had experienced more or less traumatic events. Like previous comparisons, persons who had experienced a greater number of traumatic events also had profiles that were elevated relative to those experiencing fewer traumatic events. Also, like previous analyses, those who had experienced more events had elevated levels of borderline and narcissistic personality. However, in this comparison the more traumatized group reported higher levels of antisocial personality and were not different in levels of paranoid, passive-aggressive, self-defeating, and schizotypal personality. When collapsing across specific disorders, the profile of the high exposure group was elevated relative to those experiencing fewer events. Further, they were significantly higher on Clusters A and B but not on Cluster C.

This study also adds to the empirical literature by illustrating that these personality patterns appear to emerge 'relatively' soon after the events. Previous studies examining these personality patterns among trauma survivors have typically used much older participants making

it somewhat less clear when these personality patterns emerge. The present sample had a mean age of slightly over 19 years of age. Previous literature examining the comorbidity of PTSD and substance abuse (Bremner, Southwick, Darnell, & Charney, 1996) suggests that the difficulties with substance abuse first emerge soon after the event. This study seems to provide preliminary support for the notion that personality dysfunction also emerges soon after the event.

Because of the nature of the population and the design of the study, this project has several inherent weaknesses. First, we did not assess PTSD with an interview. For this reason we used fairly stringent criteria in making group assignments. While this likely decreased the probability of making many false positive errors, it may have resulted in making several false negative errors. Future studies might use a structured or semi-structured interview to assess PTSD. Similar difficulties exist when assigning personality disorder scores based on self-report. Previous writers have found marked discrepancies between clinician assigned and self-report data, particularly regarding levels of schizoid personality (Southwick et al., 1993). The question then becomes, which is more accurate reflection of reality, the clinician's rating of aloofness, coldness, and indifference, or the client's personal assessment of these personal attributes. In the present study we are unable to answer this question and are left to rely on the participants's self-report.

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[1] I would like to express my thanks to Drs. Scott Vrana, Rebecca Davis Merritt, E.J. Capaldi, and Eliot Smith for their thoughtful comments throughout this project.

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