

DISSOCIATION IN COMBAT-RELATED POST-TRAUMATIC STRESS DISORDER

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ABSTRACT

Investigators have described dissociative phenomena in post-traumatic stress disorder (PTSD) and, conversely, viewed dissociative disorders such as multiple personality disorder (MPD) as related to PTSD. However, no study has investigated the incidence of dissociation or predictors of a pre-existing dissociative disorder in a 7al group using standardized measures of PTSD and dissociation. This study examined dissociation and predictors of childhood dissociation in 35 PTSD Vietnam combat veterans. Subjects scored significantly higher than normals on the Dissociative Experiences Scale and Perceptual Alteration Scale. Construct validity of these scales was supported by a significant correlation between the two. Roth measures were also significantly related to scores on the Mississippi Scale for Combat-Related PTSD (4I-PTSD). A correlation between combat and MITSI scores replicated previous studies. Subjects scored significantly higher than normals on the Childhood Dissociative Predictors Scale. Findings indicate a strong dissociative component in PTV). Results offer initial empirical support for a dispositional-stressor model of PTSD analogous to that proposed for MID.

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To date, research in post-traumatic stress disorder (PTSD) has necessarily focused on basic methodological problems such as the validity of the PTSD diagnosis and diagnostic criteria (Fairbank & Nicholson, 1987). This accomplished, it is now possible to more precisely delineate psychological mechanisms adopted to cope with war trauma and relevant corresponding treatment strategies. One major coping mechanism is that of dissociation. Although PTSD is placed among Anxiety Disorders in the *DSAI III-R*, several key symptoms are consistent with *DSM III-R* criteria for dissociative states, including flashbacks, feelings of detachment, and amnesia.

In reviewing trauma-related dissociative symptoms, Putnam (1985) reported amnesia as a post-traumatic symptom in 5% to 20% of World War II combat veterans (Henderson & Moore, 1944). In a survey of 68 hospitalized

Vietnam combat veterans, Brende (1986a) reported frequent dissociative phenomena including flashbacks that "seemed like being back in Vietnam" (53%), aggressive outbursts which started out of the person's awareness (70%), and the feeling that "someone else inside" takes control (73%). Brende concluded that PTSD involves dissociative symptoms on a continuum of severity ranging from intrusive memories to occasional full blown multiple personality disorder (MPD).

Conversely, patients diagnosed MPD have also been viewed as exhibiting PTSD symptomatology (Coons & Milstein, 1984; Spiegel, 1984, 1986; Brende, 1986b). Brende compared the psychological environment of combat to the childhood environments of patients suffering from MPD, characterizing both as "fraught with extreme ambivalence and victimization associated with abandonment and betrayal" (1986a, p. 1).

Despite the striking observations reported by these investigators, no study has systematically assessed the incidence of dissociative symptoms in a large, carefully-selected group of PTSD combat veterans using standardized measures of dissociation. Two such measures are now available, the Dissociative Experiences Scale (DES) (Bernstein & Putnam, 1986), and the Perceptual Alteration Scale (PAS) (Sanders, 1986). While both of these scales have shown considerable promise in a variety of clinical populations, limited data are available on PTSD subjects. Bernstein and Putnam (1986) included a small, racially unmixed sample of PTSD subjects, who scored higher than normals (Kruskal-Wallis Test, $p < .0005$). Sanders (1986) did not include a PTSD group in her report on the PAS.

The purpose of the present study was to investigate the frequency of dissociative experiences as measured by the DES and PAS in a carefully selected, racially mixed, otherwise homogenous group of PTSD veterans. In addition, this study addressed several methodological issues cited as problematic in previous PTSD research: lack of homogeneous subject groups (Fairbank & Nicholson, 1987), questionable diagnostic validity due to limited or undefined selection criteria (Fairbank & Nicholson, 1987; Keane, Wolfe, & Taylor, 1987), and the issue of secondary gain and response set (Denny, Rabinowitz, & Penk, 1987).

To minimize these confounding variables, the present study used multidimensional selection criteria, as suggested by Keane, Wolfe, and Taylor (1987), including both clinical consensus and standardized screening instruments to establish the presence and severity of PTSD symptoms and combat exposure. The potential effect of secondary gain was reduced by clinical decision rules, non-attrition from treat-

ment, and consideration of benefit status (screening described in detail in Method section).

It was predicted that a homogenous group of acute PTSD subjects would obtain significantly higher scores than did the normal subjects in the validation studies by Bernstein and Putnam (1986) and Sanders (1986). Further, it was proposed that higher scores on these dissociative measures would be associated with a higher level of PTSD, as measured by the Mississippi Scale for Combat-Related PTSD (M-PTSD Scale) (Keane, Caddell, & Taylor, 1986).

The second purpose of the study was to address the issue of predisposing factors to PTSD. It has been well documented that patients with MPD are more likely than other psychiatric patients to have childhood histories of severe trauma and physical and sexual abuse (Bliss, 1980; Braun & Sachs, 1985; Coons, 1980; Coons & Milstein, 1985; Greaves, 1980; Putnam, 1985; Schreiber, 1973; Wilbur, 1984, 1985). Braun and Sachs (1985) propose two predisposing factors for MPD: "(1) a natural inborn capacity to dissociate; and (2) exposure to severe, overwhelming traumata... of an unpredictable nature" (p. 42).

If MPD, a disorder based on dissociation, involves a predisposition to dissociation plus precipitating trauma, it is reasonable to suppose that PTSD might also involve an initial predisposition to dissociation which is evoked and reinforced by the severe, unpredictable trauma of combat. As early as 1944, some theorists suggested that veterans suffering from war stress come from disturbed homes (Henderson & Moore, 1944). Recent studies examining pre-war variables have yielded mixed results and have been limited by methodological problems including lack of diagnostic consistency and non-replicable measures (see review by Foy, Carroll, & Donahue, 1987).

The present study sought to address the predisposing factors of child abuse and dissociative proneness in a quantifiable, replicable manner. Based on the twofold genetic-trauma etiological model advanced by Braun and Sachs (1985) and the evidence for dissociation in PTSD, PTSD veterans were expected to score higher on a measure of childhood dissociation than normal subjects.

The third purpose of the study was to cross validate two empirically validated measures of dissociation currently available (DES and PAS) in a PTSD sample. The study also afforded replication of original validation studies of two other instruments currently in use in PTSD research: M-PTSD Scale (Keane, Caddell, & Taylor, 1986), and the Combat Exposure Scale (CES) (Keane, Fairbank, Caddell, Zimering, Bender, 1985; partly derived from Figley, 1980).

Finally, the study sought to further elucidate the construct of PTSD by correlating PTSD scores with additional variables found by the author to be salient issues in treatment of these veterans (amnesia, feelings of responsibility for death of enemy, feelings of responsibility for death of American(s), and having witnessed the death of a close friend).

METHOD

Subjects

Screening Criteria - Subjects were 35 male Vietnam combat veterans selected from participants in an inpatient Vietnam Veterans Stress Reduction Program at Tuskegee Veterans Administration Medical Center ('1'AMC).

Participants in this program were referred to the psychologist by staff psychiatrists on the basis of primary symptomatology consistent with PTSD, as defined in the *DSM-III-R* (American Psychiatric Association, 1987). From these referrals, a staff psychologist with extensive experience working with Vietnam veterans and PTSD selected patients for the Vietnam Veterans Stress Reduction Program, which involved group and individual therapy and didactic sessions.

Participants in the study met the above requirements and the following five additional screening criteria: Criterion 1 was consensus between the staff psychologist and the PTSD Program psychology intern on primary diagnosis of PTSD based on *DSM-III-R* criteria. Criterion 2 was clinical judgment that primary rather than secondary gain factors were predominant in the patient's motivation, as indicated by a) the patient's motivation to participate in the fairly rigorous treatment program; b) the patient's following his treatment plan until the recommended discharge date; c) the patient's assumption of responsibility for his problems; and d) non-verbal cues such as hypervigilant response to mention of Vietnam-related topics. Criterion 3 was no known history of severe head injury, incipient malaria, or temporal lobe epilepsy. Criterion 4 was a score above the cut-off score of 107 on the M-PTSD scale (Keane, Caddell, & Taylor, 1986). Criterion 5 was in the "moderate" to "heavy" range on the Combat Exposure Scale (CES) (Keane et al., 1985).

Of 46 veterans solicited for the study, three refused because of concerns with confidentiality or issue trust with the Veterans' Administration. Another was excused when he suffered a loss and experienced an acute grief reaction immediately preceding testing. Of the remaining 42 veterans, 35 met the criteria for inclusion in the study.

Demographic Characteristics

Sixty percent of the subject sample was Caucasian, 31% Black, and 9% American Indian. Mean age was 40 years 8 months (sd = 5 years). None of the veterans was steadily employed at the time of admission. Subjects exhibited a wide range of number of months in therapy (group or individual), ($x = 19$ months, $sd = 31$).

Screening Criteria: Results

The group's mean score on the M-PTSD scale was 135.63 (sd = 15.84). Only one subject scored lower than 1 sd from the PTSD mean of 130 reported by Keane, Caddell, and Taylor (1986) in their validation study.

Mean score on the CES was 33.37 (sd = 5.29), placing the subjects as a group in the "heavy combat" range, or upper 20% of this scale, as described by Keane, et al. (1986). All subjects fell in the "moderately heavy" to "heavy" combat range except one, who scored in the "moderate combat"

range.

The overwhelming majority of the subjects "felt responsible for the death of enemy" (N = 34; 97%) and "witnessed the violent death of a close friend" (N = 33; 94%). Twenty (57%) reported amnesia for some events in Vietnam.

Secondary Gain Factors

Because one purpose of the VA is to provide compensation and treatment to veterans suffering from illness related to military service, the problem of positive bias related to secondary gain is inherent in research with this population. Since PTSD is unique in being a compensatable illness related to an identifiable stressor, secondary gain issues are additionally complicated. In addition to criteria related to completion of treatment described above, these measures were taken: (1) standardization of instructions to emphasize confidentiality and the fact that scores would not affect treatment, diagnosis, or disability (since psychologists do not supply diagnoses in this VA station, these statements were more credible to the veterans than otherwise); (2) assessment of disability ratings.

A review of disability ratings indicated that the majority of subjects in the study (77%) were already receiving some disability (x percentage disability = 33%). Seventy-one percent had awards for nervous or nervous and medical disabilities. This reduced the probability of these veterans using treatment as justification for a primary PTSD diagnosis.

Thus, a relatively small number (4) were readmissions with no disability, which is the most likely pattern for malingering. Since eligibility is periodically re-evaluated, the above procedures do not eliminate all possibility of secondary gain, but were considered significant efforts to minimize this factor.

Instruments

Dissociative Experiences Scale - The DES (Bernstein & Putnam, 1986) is a 28-item self-report questionnaire which gives a mean of scored items ranging from 0 to 100 called the DES score. Subjects rate items according to frequency by placing a slash on a line representing a continuum from "never" to "always." Items reflect dissociative experiences such as: "Some people are told that they sometimes do not recognize friends or family members. Mark the line to show what percentage of the time this happens to you."

Bernstein and Putnam (1986) validated this scale on 156 subjects including normal adults and a variety of psychiatric groups including PTSD (N = 10) and MPD (N = 20). These authors reported a steady progression in the median DES scores from normal subjects to MPD subjects, who obtained the highest median scale score. PTSD patients scored higher than all other groups except MPD. Test-retest reliability was 0.84 ($p < .0001$, N = 26). Spearman rank-order item-scale correlations ranged from .50 to .79; all correlations reached a level of $p < .0001$.

Perceptual Alteration Scale

The PAS (Sanders, 1986) is a 60-item scale containing items describing dissociative experiences which the subject

scores according to frequency on four dimensions ranging from "never" to "almost always." Representative items are: "What my body is doing has nothing to do with me," and "I wake up and find that several days have passed." Sanders (1986) validated the scale on a group of 114 subjects comprised of normal college students (N = 74) and binge eating college students (N = 40). She found that the scale discriminated between the two groups (alpha score = .95), and that binge eaters had significantly higher scores than did normals ($t = 5.12$, $p < .0001$). In addition, the scale correlated with a number of other personality measures. Both Sanders (1986) and Bernstein and Putnam (1986) concluded that normals admit some dissociative experiences, but their responses tend to be infrequent and of low to moderate severity.

Mississippi Scale for Combat-Related PTSD

The M-PTSD scale is a 35-item scale based on DSM-III criteria for PTSD developed by Keane, Caddell, and Taylor (1986). These authors conducted a series of studies which established the factor structure of the test as stable. The scale was validated in a sample of 90 subjects including a group of PTSD patients, a heterogeneous psychiatric veteran comparison group, and a group of successfully adjusted Vietnam veterans. They found group mean scores of 130, 88, and 74, respectively (total possible score ranges from 35 to 175). Using a cut-off score of 107, they were able to correctly classify 90% of subjects as PTSD or non-PTSD. Internal consistency, test-retest reliability, and diagnostic sensitivity are described in detail by the authors (Keane et al., 1986).

Combat Exposure Scale

The CIS (Keane et al., 1985) is a 7-item scale designed to assess the severity of combat to which a subject was exposed. Items are weighted according to the severity of the experience. Total score ranges from 0 (no combat) to 41 (highest score in "extreme combat" range). Keane, Caddell, and Taylor (1986) found scores on the CES to correlate positively with scores on the M-PTSD Scale ($r = .25$, $p < .0001$).

Childhood Dissociative Predictors Scale

A questionnaire to measure childhood trauma in terms of physical and sexual abuse and dissociative experiences in childhood, the Childhood Dissociative Predictor Scale (C:DPS), was developed by the author (Branscomb, 1988). Questions on sexual abuse were modified from Badgley et al. (1984), as described by Finkelhor (1986). Questions regarding behaviors related to childhood incipient MPD and childhood behaviors in histories of adult patients with MPD were adapted from suggestive indicators described by Fagan and McMahon (1984) and Kluff (1985a) which were amenable to self-report.

The CDPS is a 14-item scale to which the subject responds by selecting a frequency for each item ranging from "never" to "very often (almost every day)." Several items, e.g., presence of sexual abuse before age twelve, are scored according to presence or absence. Items are worded carefully in an effort to minimize misunderstanding by patients from

diverse backgrounds and to reduce anxiety.

The (MPS contains two subscales: the Dissociation Subscale and the Abuse Subscale. Dissociation items reflect the patient's report of subjective internal experiences of a dissociative nature, such as "Did you ever think or feel you had separate parts, that is, as if there were someone else inside?" "Did you ever think or feel you had separate names?" The Abuse Subscale contains items describing external aspects of the childhood environment and parental abuse or neglect, such as "How often were you hurt (any kind of a bruise, cut, or mark) when you were punished?"

Each subscale contains seven items scored 0 to 4, yielding a subscale score ranging from 0 to 28. Total score ranges from 0 to 56. The CDPS was validated in a group of 220 subjects, including a variety of clinical populations (Branscomb, 1988).

Procedure

Volunteers completed a battery which included (1) Demographic Questionnaire, (2) DES, (3) PAS, (4) CDPS, (5) M-PTSDScale, (6) CES, and (7) additional questions related to role in Vietnam and the Vietnam experience. In pilot studies it was observed that the CES sometimes evoked strong feelings in the veterans, thus this scale was placed last to minimize affective set influencing subsequent responses. Titles of all forms were reworded in a neutral fashion. The examiner was not a part of the PTSD treatment team at the time of the study.

RESULTS

Measures of Dissociation

The TVAMC PTSD group mean on the DES was 41.11 (sd = 15.20); for the Bernstein and Putnam PTSD sample (1986 subjects plus an additional 18 subjects reported by personal communication, [Bernstein, 1987]) 25.78 (sd = 12.01). The TVAMC PTSD group scored significantly higher than the

latter group ($t = 4.09$, 61 df, $p < .001$), and higher than did normals ($t = 14.07$, df = 67, $p < .0001$) (see Figure 1). The MPD subjects reported by Bernstein and Putnam (1986) scored higher than the TVAMC PTSD group; ($t = 3.05$, df = 53, $p < .01$).

The PTSD subjects scored significantly higher than Sanders' (1986) normal subjects ($t = 12.64$, df = 107, $p < .0001$) (see Figure 2). Mean score for the PTSD sample was 140.63 (sd = 25.20); for normals reported by Sanders 90.22 (sd = 16.24). PTSD subjects scored significantly higher than Sanders' "binge eaters," ($t = 6.22$, df = 73, $p < .001$), the population which the scale was originally designed to assess. The PTSD mean closely approximates the mean of 140 obtained in an initial group of 10 MPD patients assessed by the present author.

Correlations between measures of combat stress and dissociative measures are summarized in Table 1. PTSD scores correlated with DES scores ($r = .33$, $p < .05$), and with PAS scores ($r = .56$, $p < .0001$). PAS scores were related to DES scores ($r = .60$, $p < .0001$).

Regarding childhood dissociation, PTSD subjects obtained a mean CDPS score of 17.06. This was significantly higher than the mean for normals ($N = 54$; $X = 9.61$) ($t = 4.60$, df = 87, $p < .001$). The mean score for the initial four MPD subjects (three males, one female) on the COPS was 36.50. For normative data see Branscomb (1988). Further studies of the CDPS in larger samples of dissociative patients are currently in progress.

Since it is a dissociative phenomenon, "amnesia for events in Vietnam" was expected to be associated with higher PTSD scores and higher scores on measures of dissociation (DES, PAS, and CDPS). This hypothesis was partly confirmed. There was a near significant trend for the presence of amnesia to be associated with CDPS score ($r = .28$, $p = .051$), and a significant association ($r = .37$, $p < .05$) between amnesia and the Abuse Subscale of the CDPS (items measuring child abuse and overt family aggression). When those with amnesia were compared by group to those without, there continued to be

FIGURE 1
Comparison of Group DES Mean Scores

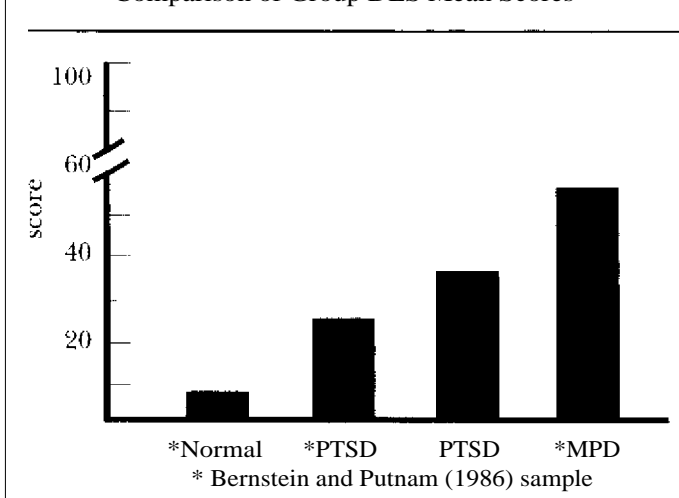
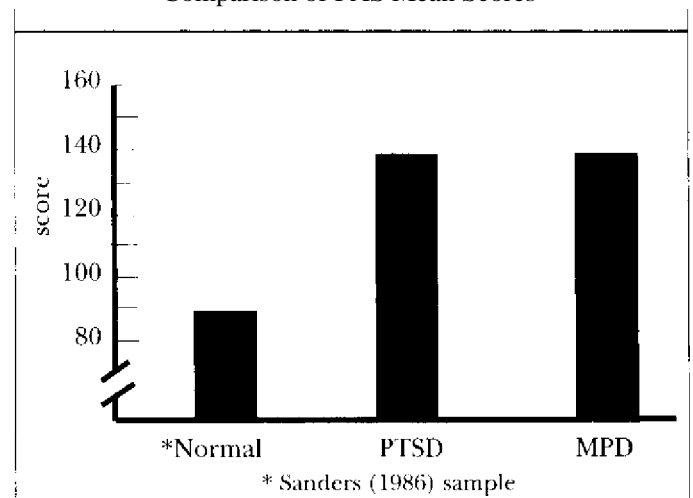


FIGURE 2
Comparison of PAS Mean Scores



a significant difference in the scores on the Abuse Subscale (one-way Anova; $F = 5.31, p < .05$), with veterans who reported amnesia scoring higher on this scale.

Since "feeling responsible for the death of Americans" is a stronger taboo than killing an enemy, and emerges as one of the most shameful issues in treatment of combat veterans, this factor was expected to relate to higher PTSD scores. This relationship was confirmed ($r = .32, p < .05$). "Feeling responsible for the death of Americans" was also associated with higher combat scores ($r = .31, p < .05$).

Replication Findings

Keane, Caddell, and Taylor (1986) reported a positive correlation of ($r = .25, p < .0001$) between scores on the Combat Exposure Scale and scores on the M-PTSD Scale. This study replicated this finding ($r = .33, p < .05$).

This study revealed higher scores on the M-PTSD Scale in the PTSD sample to those found by the original authors (Keane, Caddell, Taylor, 1986), ($t = 6, 11, df = 63, p < .0001$).

Additional Findings

No significant differences between races on any measures were found, except a moderate trend for Caucasians to score higher on the M-PTSD Scale, and a strong trend for Blacks to score higher on "number items endorsed" on the DES.

DISCUSSION

PTSD and Dissociation

The most striking findings of the study are the severity of dissociative problems reported by PTSD veterans and the direct association between PTSD score and measures of dissociation. Results suggest that level of dissociative problems in a carefully selected group of acute PTSD veterans is significantly higher than dissociative problems reported by normals on both the PAS and DES, and higher than other clinical populations reported thus far except MPD.

Scores of the PTSD subjects in this sample, further, fall predominantly in the lower half of the range of DES scores reported for MPD patients (Bernstein & Putnam, 1986). In a small initial sample of MPD patients tested on the PAS, an even closer similarity between the two groups is seen.

These data are consistent with the author's clinical observation that while PTSD veterans may not have extensive elaboration of personalities represented by the frag-

mented aspects of self, they often manifest shifts in the sense of identity with an intensity, hopelessness, and helplessness similar to that of MPD patients.

In this sample, PAS scores account for more variance in the dissociative component of PTSD, at a higher level of certainty, than DES scores. This is surprising, since a number of PAS items relate specifically to eating disorders. A possible contributing factor is that many veterans had difficulty understanding the response format of the DES. Nevertheless, the disparity between these measures suggests that continued refinement of instruments could lead to measures which more closely access and delineate the dissociative mechanism as it is manifested in PTSD.

Construct validity of the DES and PAS is supported by the strong correlation between these two measures as well as by the high scores on these measures in PTSD, a disorder previously believed to have a strong dissociative component (Brende, 1985a; Putnam, 1985).

The mean scores and relatively narrow ranges on the NI-PTSD and CES support the diagnostic homogeneity of PTSD subjects and severity of PTSD symptoms in this sample. The mild though significant elevation on the M-PTSD scale above that reported originally (Keane et al., 1986) was unexpected. A possible contributing factor is that decision rules regarding secondary gain and attrition eliminated several subjects who met the M-PTSD cutoff, but scored in the lower PTSD range. Another explanation is that the public attention to Vietnam in the several years since the previous study has given veterans more license to report their symptoms. This finding suggests that more samples are needed to continue to approximate a true PTSD mean on this scale,

PTSD and Childhood Dissociative Predictors

The second major finding in the study is the initial discovery of a higher incidence of abuse and dissociative phenomena in childhoods of PTSD veterans than in normal subjects. A control group of combat non-PTSD, non-dissociative

TABLE 1

Relationship Between Dissociative Measures and Measures of Combat and Post-Combat Stress

Variable	PTSD Score	Combat Exposure	Amnesia for Events in Vietnam	PAS
PTSD Score	1.0	.33*	.18 (us)	.56**
DES	.33*	.04 (ns)	.18 (ns)	.60**
PAS	.56**	.15 (us)	.05 (ns)	1.0
(:DPS: (Abuse Subscale)	.02 (ns)	.08 (ns)	.37*	.14 (ns)
Death of American+	.32*	.31*	.21 (us)	.24 (ns)

- $p < .05$
- $p < .0001$

— Feelings of Responsibility for Death of American (s)
 — Not Significant

veterans is needed to establish whether combat veterans as a group have greater proneness to dissociation (and perhaps self-select the role of combatant as syntonically with this background), or whether this history is characteristic only of those combatants who develop PTSD (in which case child abuse and dissociation could be assumed to play a role in etiology of PTSD). However, since PTSD veterans report a higher incidence of such factors than do normals, the tentative observation can be forwarded that veterans with PTSD have a predisposition to dissociative behaviors both in terms of external aggression in the family and dissociative types of responses to that environment.

A serendipitous finding was that higher scores on the CDPS were inversely correlated with time in therapy; both Total CDPS score ($r = -.30, p < .05$) and the Dissociation Subscale (subjective report items disclosing dissociative experiences) ($r = -.30, p < .05$). It is plausible that veterans who have experienced abusive behaviors and violation of trust with significant others are less likely to seek and maintain therapy relationships. This finding may account for some of the great difficulty in trust encountered in many of these veterans.

A noteworthy finding is the frequency with which "feeling responsible for the death of an American" correlated with other factors. In addition to the strong correlation with PTSD scores mentioned above, this factor was associated with combat exposure ($r = .31, p < .05$), and amount of disability ($r = .26, p = .06$). Clearly this item should be considered in evaluation of combat stress and in treatment issues.

A Caution in Interpretation: The Stressor-Dispositional Debate

In view of the recent spirited debate over the stressor criterion in the etiology of PTSD (Breslau & Davis, 1987; Escobar, 1987; Horowitz, Weiss, & Marmar, 1987; Lindy, Green, & Grace, 1987), it is prudent to advance several cautions in the interpretation of findings. First, until a control group of non-PTSD combat veterans *without* a similar incidence of predisposing factors is established, a causal relationship between these and PTSD cannot be inferred. Second, current models of PTSD are not univariate, but rather emphasize multifactorial precipitating factors (Lindy et al., 1987). Some studies (Ursano, 1981; Ursano et al., 1981; Kenner, 1972; Belenky et al., 1983; Card, 1983; Laufer, 1985) have shown that pre-existing psychiatric illness is neither "necessary nor sufficient to the diagnosis of psychiatric morbidity after massive trauma" (Ursano, 1987).

PTSD is likely multidetermined, involving interaction between personality, individual biological factors, and characteristics of the stressor, as well as post-trauma mitigating factors. To argue that predisposition precludes "causality" of the stressor is both simplistic and undiscerning of the atrocities which many combat veterans have encountered.

Thus the present findings are not meant to minimize the "significant stressor" criterion in PTSD. Rather, these findings are best understood as elaborating on recent well-controlled studies which emphasize combat trauma by elucidating the mechanism of dissociation, and the possibility of proneness toward this coping response in certain individu-

als. Dissociative "skills" and the background they imply may initially serve as "resources" for survival and high functioning in the field. Ultimately, however, the exposure to extreme conditions of war gives the veteran with this coping style an increased vulnerability to splitting that impedes post war adaptation.

Combat PTSD as Adult-Onset Analog to MPD

The severity of dissociation in these veterans, which in some cases approached that of MPD, plus the author's clinical observations suggested an adult-onset analog of MPD. Clinical observations included: 1) distinct differences in cognitions, predominant affect, and behavior between ego states; 2) the rapidity and extent of change in the switching process; 3) the extent of hopelessness and seeming confusion these veterans experience about their differing "parts;" 4) the ego-dystonicity of the post-war ego states from the point of view of the veteran as he was "before the war;" and 4) the existence of ego states consistent with key alters in most MPD personality systems (host, angry protector(s), numb or scared and traumatized victim(s), and persecutors capable of harming self or others). The clinical picture of these adult PTSD veterans is further analogous to MPD model in etiology, as shown by the present findings of a pre-existing tendency toward dissociation combined with severe, repetitive trauma. Finally, the experience of the author is that these veterans responded well to treatment modeled after treatment of MPD (identification of alter states, increased communication and cooperation between alters, abreaction, and integration).

The essential difference between the severe PTSD resulting from combat and classic childhood onset AITD may not lie in the extent of switching and the functional dynamics of alter states, but rather in the degree of elaboration of separate personalities and their fantasized attributes. This can be understood in terms of the fact that the traumatized child relies on the developmentally-appropriate fantasy defense, and has more years during which to elaborate different personalities before presenting for treatment. The dissociative traumatized adult may have comparable splitting between components of experience as described by Braun (1988) (Behavior, Affect, Sensation, Knowledge) without elaboration of ego states to the extent seen in full "personalities."

This observation is not meant to blur the distinction between PTSD and MPD, but rather to emphasize the extent of dissociative sequelae possible following adult or late adolescent trauma, and to suggest that the MPD model may be useful in approaching some PTSD clients. Further research is needed to clarify the utility of this model and innate and environmental factors which lead to similarities between severe adult-onset PTSD and MPD.

CONCLUSION

Though findings should be viewed as preliminary, they offer beginning empirical data to suggest that the etiology of PTSD may depict a two-fold genetic-stressor model analogous to that suggested by Braun and Sachs (1985) for MPD.

Kluft (1986) also cites the predisposing factor of lack of a supportive environment where an abused child can express feelings related to the abuse, a circumstance that faced many Vietnam veterans upon return to the United States. Given the lengthy histories of failed therapies with MPD patients before dissociation is diagnosed and the consensus among experts that MPD is a highly treatable disorder (Kluft, 1985b), it seems essential to continue to clarify the nature and prominence of dissociation in PTSD.

In explaining the relatively greater number of females diagnosed MPD than males, Kluft (1985b) has speculated that the natural history of abused males with dissociative problems may take a different course than females. The military is a subculture which promotes traditionally "male" ways of coping: denial of vulnerability, aggression, and acting outwardly instead of inwardly through fantasy or depression, as characteristic of females. These results invite speculation that the military houses some of the men who suffer from dissociative problems related to child abuse, offers an environment which is consistent with denial of the hurt experienced as children, and continues to reinforce coping patterns supported by culturally reinforced gender roles.

As researchers have noted in another area of acute trauma, that of incest and child abuse (Fagan & McMahon, 1984), the social climate must be "ready" for a psychological syndrome to become visible, to be acknowledged by the public and the profession, and to begin to yield itself to our understanding. PTSD is not a new problem, but it is one whose time has come. In the words of Penk and Rohinowitz (1987), "... as psychologists we must challenge the taboo topic of the aftermath of war, which we have avoided for so long" (p. 5). This means that we, along with the veteran, must remember the war. By doing so, however, we gain the opportunity to gather our own resources, empathic and conceptual, to help those who have endured acute trauma.

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