Use of the Structured Clinical Interview for DSM-IV Dissociative Disorders for Systematic Assessment of Dissociative Symptoms in Posttraumatic Stress Disorder

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Objective: This study compared dissociative symptom areas in Vietnam combat veterans with posttraumatic stress disorder (PTSD) and in Vietnam combat veterans without PTSD. Method: The Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D) was used to compare dissociative symptoms in 40 Vietnam combat veterans with PTSD and 15 Vietnam combat veterans without PTSD. The SCID-D yields a total score and scores in five symptom areas: amnesia, depersonalization, derealization, identity confusion, and identity alteration. Results: The PTSD patients had more severe dissociative symptoms in each of the five symptom areas of the SCID-D and higher total symptom scores. Amnesia was the symptom area with the greatest difference in scores between the PTSD patients (mean=3.68, SD= 0.73) and the non-PTSD veterans (mean=1.06, SD=0.26). Conclusions: The finding of higher levels of dissociative symptoms in Vietnam combat veterans with PTSD than in Vietnam veterans without PTSD is consistent with a level of dissociative symptoms in PTSD similar to that in dissociative disorders.
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Since the time of the first world war there have been reports of dissociative symptoms in veterans exposed to combat-related trauma (1–13). Over the last decade the relationship between dissociation and severe trauma, such as combat, has become increasingly appreciated (14–16). This relationship appears to be generalizable to traumas other than combat, such as childhood abuse (17). In addition, psychiatric disorders other than posttraumatic stress disorder (PTSD), including borderline personality disorder (18) and the dissociative disorders (19–22), appear to be associated with trauma.

Several studies (23–25) have provided evidence for high levels of dissociative symptoms in combat veterans with PTSD. In one study (26), Vietnam combat veterans with PTSD reported higher levels of dissociative symptoms, as measured with the Dissociative Experiences Scale, than did Vietnam combat veterans without PTSD. This study did not assess the severity of symptoms in discrete areas of dissociation. In addition, the study did not answer the question of whether high levels of dissociative symptoms are specific to PTSD.

The development of diagnostic instruments such as the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D) (27, 28) has made possible the assessment of specific dissociative symptoms. The SCID-D is a semistructured diagnostic interview for the systematic assessment of five dissociative symptoms: amnesia, depersonalization, derealization, identity confusion, and identity alteration. It also allows for the di-

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TABLE 1. Scores on the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D) for Vietnam Combat Veterans With and Without PTSD

	Score[a]				
	PTSD Patients (N=40)		Non-PTSD Veterans (N=15)		
SCID-D Measure	Mean	SD	Mean	SD	t[b]
Amnesia	3.68	0.73	1.06	0.26	19.63
Depersonalization	3.38	1.05	1.13	0.35	11.81
Derealization	3.18	1.20	1.07	0.26	10.52
Identity confusion	3.55	0.88	1.07	0.26	16.16
Identity alteration	3.20	0.99	1.00	0.00	14.02
Total score	16.98	4.13	5.33	0.93	17.14

[a]1=absent, 2=mild, 3=moderate, 4=severe.
[b]Two-tailed unpaired test; df=53. For all comparisons, $p<0.0001$.

agnosis of dissociative disorders on the basis of DSM-III-R criteria and proposed DSM-IV criteria. Severity rating definitions were developed to operationalize the assessment of the five dissociative symptom areas (28). The purpose of this study was to use the SCID-D to assess the presence and severity of specific dissociative symptoms in Vietnam combat veterans with PTSD and compare them to symptoms in Vietnam combat veterans without PTSD.

METHOD

The subjects were 55 patients at the West Haven Veterans Administration (VA) Medical Center. The Vietnam combat veterans with PTSD (N=40) were seeking treatment for PTSD and comprised consecutive patients admitted to the inpatient unit of the National Center for Post-Traumatic Stress Disorder, Division of Clinical Neurosciences, West Haven VA Medical Center, and consecutive outpatients seeking treatment from clinicians who were making referrals for the study. The Vietnam combat veterans without PTSD (N=15) were seeking treatment for medical problems and were patients seen in the outpatient ambulatory care clinic at the West Haven VA Medical Center during a 3-month period.

Veterans were considered to have been exposed to combat if they had a history of having been subjected to hostile or friendly fire or to incoming artillery rounds. The patients were assigned to PTSD and non-PTSD groups on the basis of presence or absence of a diagnosis of current PTSD as determined with the Structured Clinical Interview for DSM-III-R (SCID) (29). Patients with a history of psychosis, organic brain syndrome, or a medical illness that would preclude participation were excluded from the study.

There were no significant differences in any of the demographic variables between the combat veterans with and without PTSD. The mean age of the Vietnam veterans with PTSD was 44.6 years (SD=2.8), and the mean age of the Vietnam veterans without PTSD was 43.7 years (SD=2.7). All subjects were men. Of the 40 Vietnam veterans with PTSD, 34 (85%) were white, five (13%) were black, and one (3%) was Hispanic; of the 15 non-PTSD veterans, 13 (87%) were white and two (13%) were black.

Dissociative symptoms were evaluated by using the SCID-D (27). The interviewers were trained in the scoring and interpretation of the SCID-D by one of us (M.S.). Training consisted of didactic sessions and co-rating of SCID-D training videotapes. The interviewers were considered adequately trained upon achievement of acceptable interrater reliability (scoring discrepancy of no more than 2 points on the total SCID-D summary score). The intraclass correlation coefficient for interrater agreement on the total SCID-D score was 0.95 (28). This takes into account the fact that the same two examiners were used throughout. The SCID-D has also been shown to have discriminant validity in differentiating patients with dissociative disorders from normal healthy subjects ($p<0.0001$) and from patients with nondissociative psychiatric disorders (28). Further information on the development, reliability, and validity of the SCID-D can be obtained elsewhere (27, 28). Informed consent, including consent to video- and audiotaping, was obtained from all subjects.

Two-tailed unpaired t tests were used to test the significance of differences between the two groups for each of the symptom areas and the total score. The five SCID-D symptoms, i.e., amnesia, depersonalization, derealization, identity confusion, and identity alteration, are scored on a 4-point scale (1=absent, 2=mild, 3=moderate, 4=severe), and the main criteria are frequency and persistence of the symptoms. The total SCID-D score can range between 5 and 20.

RESULTS

The Vietnam veterans with PTSD had a significantly higher mean total SCID-D score than the Vietnam veterans without PTSD (table 1). In addition, the patients in the PTSD group had higher levels of symptoms in each of the five areas measured by the SCID-D than did the patients in the non-PTSD group.

When questioned about symptoms related to amnesia, the PTSD patients reported gaps in memory lasting hours to days, with blocks of missing time that could not be accounted for, and the forgetting of important personal information, such as name and address. One patient reported,

> I was living in Boston at the time. One day I was walking down the street and the next thing I knew I was in a motel room in Texas. I felt pretty stupid asking people what town I was in. (SCID-D interview, unpublished transcript)

Other patients reported experiences such as driving in a car and forgetting what happened during part of the trip, or finding themselves in a new place and forgetting who they were or how they got there.

In response to questions about depersonalization, one PTSD patient reported seeing himself from a distance, another reported looking at a part of his body and feeling as though it was not his, one had the experience of his body swelling up, and another felt his arms and legs becoming like toothpicks. One veteran had a memory of a tent and of stopping one of the authors in the hallway to ask about the tent when he was on our inpatient treatment unit. He was later able to link the memory with the following event:

> We were killing Viet Cong with bayonets so that the other Viet Cong in the area couldn't hear our gunshots. As I was knifing people I had the experience of separating from myself. I was floating above myself, looking down upon myself, and feeling sorry for the guy who was doing such a terrible thing. (SCID-D interview, unpublished transcript)

Another veteran, when he fought with his wife, had the experience of seeing himself sitting next to himself on the couch and telling him what he should say to his wife.

The PTSD patients also reported more severe symptoms in the area of derealization than the non-PTSD

group. Some veterans reported the experience of looking at the world through a fish tank, with everything curved and distorted, or of seeing things through a tunnel, with everything dark on the periphery of their vision. One veteran reported the following experience:

> I went to Disney World with the wife and kids. When we walked into the park, I was overwhelmed by the number of people there. Everything started to seem blurred or strange, as if things were moving in slow motion. I could hear people talking, but it seemed as if they were talking a foreign language. I looked at my family, but I couldn't recognize them. They seemed unfamiliar, even though logically I knew that they were my family. My wife had to take me by the hand and lead me out of the park. (SCID-D interview, unpublished transcript)

This veteran had similar derealization experiences at the time of the most traumatic event during his time in Vietnam. Other veterans also reported looking at their families and friends and not knowing who they were, or not recognizing their own houses.

The PTSD patients frequently reported identity confusion, i.e., feeling confused as to who they were and feeling a struggle within themselves about who they were. They reported dialogues inside their heads, in which different voices argued with each other. Sometimes the different sides were represented as various manifestations of "good" and "bad." Some patients reported the feeling that one part of them did not want to go on in life, felt that no one really cared about them, and felt that life was meaningless, while another part wanted to go on.

The PTSD patients also reported more identity alteration than the non-PTSD group. The PTSD patients reported the feeling that there was someone else inside of them, a "combat person" or "warrior," who typically did not care about life or death. For example, one patient reported,

> The warrior was born in me in Vietnam. He would say, it just doesn't matter. Now, when I get in a fight or have a problem, the warrior takes over. He doesn't have fear, he's not afraid to hurt other people, he doesn't have any remorse. (SCID-D interview, unpublished transcript)

DISCUSSION

Our findings suggest that high levels of dissociative symptoms may be an important feature of patients with PTSD. The PTSD patients in our study had higher levels of dissociative symptoms than did patients with major depression, schizophrenia, and schizoaffective disorder in another study using the SCID-D (28). Spiegel et al. (23) compared patients with generalized anxiety disorder to Vietnam combat veterans with PTSD and found a greater degree of hypnotizability, which is a marker of dissociation, in the PTSD patients than in the patients with generalized anxiety disorder. In addition, the PTSD patients in our study had a SCID-D total symptom score (mean=16.98, SD=4.13) similar to totals reported for patients with a variety of dissociative disorders (mean=17.28, SD=2.22) (28) and patients with multiple personality disorder (mean= 18.17, SD=1.53) (18).

PTSD and the dissociative disorders may have a common traumatic etiology. Although severe dissociation appears to be specific to PTSD and the dissociative disorders, patients with borderline personality disorder, which also has traumatic antecedents (30), have higher levels of depersonalization (18) than do patients with other major psychiatric disorders (28). These findings are consistent with other lines of evidence from descriptive and biological studies which suggest that these disorders may be related.

Although the PTSD patients scored high in all of the dissociative symptom areas measured, symptom severity in the area of amnesia appeared to be particularly prominent. There are several clinical reports of amnesia in response to the severe stress of combat in the literature from the two world wars. For example, in one study of the North Africa campaign (5), immediately after a major battle more than 5% of combat veterans had no recall of what had happened.

Several questions remain unanswered by this study. The number of non-PTSD veterans was low, and future studies are needed to replicate our results. Our study does not resolve questions about the relationship between PTSD and the dissociative disorders. Further studies are needed to answer these and other questions about the relationship between trauma and dissociation.

The study of dissociative symptoms may be applicable to studies of the relationship between stress and memory. Studies of dissociation suggest that the symptom areas of dissociation are correlated with one another across patient groups, including our patients with PTSD. One element that dissociative symptoms have in common phenomenologically is that they appear to involve systems of memory or information processing. One could speculate that dissociative symptoms may be an outcome of changes in brain systems involved in memory following exposure to extreme stress. Initial dissociative states at the time of trauma could be a marker for the initiation of these pathological processes involving neurobiological systems of memory. Long-term changes in brain structures involved in visual, verbal, olfactory and emotional memory, such as the amygdala, hippocampus, hypothalamus, and temporal lobe, could result in continued dissociative symptoms, as well as other symptoms characteristic of PTSD, such as intrusive memories, nightmares, and flashbacks.

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