ADMINISTRATION, SCORING, & PROCEDURES MANUAL

for the

DSMPTSD III-R & DSMPTSD IV

A Measure of Posttraumatic Stress Disorder
Structured to Meet DSM-III-R & DSM-IV Diagnostic Criteria

DEPARTMENT OF PSYCHIATRY
Uniformed Services University of the Health Sciences
F. Edward Hébert School of Medicine
4301 Jones Bridge Road
Bethesda, Maryland 20814-4799
Tel: 301-295-2470; Fax: 301-319-6965

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ROBERT J. URSANO, M.D.
Professor and Chairman
Department of Psychiatry
Uniformed Services University of the Health Sciences
F. Edward Hébert School of Medicine

CAROL S. FULLERTON, Ph.D.
Associate Professor (Research)
Department of Psychiatry
Uniformed Services University of the Health Sciences
F. Edward Hébert School of Medicine

For more information please contact the authors:

DEPARTMENT OF PSYCHIATRY
Uniformed Services University of the Health Sciences
F. Edward Hébert School of Medicine
4301 Jones Bridge Road
Bethesda, Maryland 20814-4799
Tel: 301-295-2470; Fax: 301-319-6965

This work was done at::

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Robert J. Ursano, M.D., Carol S. Fullerton, Ph.D.

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Uniformed Services University of the Health Sciences
F. Edward Hebert School of Medicine
4301 Jones Bridge Road
Bethesda, MD 20814

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Since many trauma and disaster studies include the Impact of Events Scale (IES) and the SCL-90-R as core instruments, the DSMPTSD-III-R has been developed to identify PTSD with the addition of only 12 Supplemental Items to these two scales. The DSMPTSD-III-R is structured to meet DSM-III-R and the DSMPTSD-IV is structured to meet DSM-IV diagnostic criteria for PTSD using a multimeasure approach. The DSMPTSD-III-R uses the SCL-90-R, the Impact of Events Scale (IES), and 12 Supplemental Items scored similar to the SCL-90-R to assess PTSD. By using a general measure, a disaster-specific measure, and Supplemental Items specific to PTSD, the dimensions of PTSD can be assessed in a more thorough manner than with only one measure. Through the IES, the DSMPTSD-III-R and DSMPTSD-IV retain trauma-specific symptoms of intrusion and avoidance.

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ADMINISTRATION, SCORING, & PROCEDURES MANUAL

for the

DSMPTSD-III-R & DSMPTSD-IV

This Manual describes the development, standardization and use of the DSMPTSD-III-R self-report measure of posttraumatic stress disorder (PTSD) standardized for DSM-III-R and the DSMPTSD-IV standardized for DSM-IV. We present two abbreviated versions, the BPTSD-12 Item and BPTSD-6 Item.

I. INTRODUCTION

The DSMPTSD-III-R & DSMPTSD-IV are structured to meet DSM-III-R & DSM-IV diagnostic criteria for PTSD using a multimeasure approach.

While sensitivity is most important for clinical screening, specificity is critical to community research when looking for disorders with a low base rate

Accurate measurement across populations requires identification of optimally sensitive, specific, and efficient cutoff scores.

Since many trauma and disaster studies include the Impact of Events Scale[1] (IES) (Horowitz et al, 1979), and the SCL-90-R[2] (Derogatis, 1983) as core instruments, the DSMPTSD-III-R (Ursano et al., 1992, 1995) has been developed to identify PTSD with the addition of only 12 supplemental items to these two scales. Using a multimeasure approach, the DSMPTSD-III-R is structured to meet DSM-III-R PTSD diagnostic criteria and the DSMPTSD-IV was developed to meet the DSM-IV diagnostic criteria for PTSD. The DSMPTSD-III-R and DSMPTSD-IV assess PTSD using the SCL-90-R, the IES, and 12 "Supplemental Items" specific to PTSD scored similar to the SCL-90-R. By using a general measure, a disaster-specific measure, and supplemental items specific to PTSD, dimensions of PTSD are measured in a more thorough manner than with only one measure. Through the IES, the DSMPTSD-III-R and DSMPTSD-IV retain trauma-specific symptoms of intrusion and avoidance.

The use of multiple measures to assess PTSD has received growing support in the literature (e.g., Keane 1987; Kulka et al., 1990; Weathers, 1997), especially in community epidemiological studies using self-report measures (Schlenger et al., 1997). While traditionally multiple measures refers to multi-method measures (interview, self-report, and physiologic assessments), it is also true that multiple measures increase specificity, a critical component of measurement in community studies. While sensitivity is most important for clinical screening, specificity is critical to research on specific disorders particularly in communities with a low base rate of disorder. The use of several measures to assess PTSD, as in the DSMPTSD-III-R and DSMPTSD-IV, generally increases specificity.

The assessment of PTSD and other low base rate disorders in community samples requires special attention to the diagnostic accuracy and generalizability of the measures (Norris and Riad, 1997; Schlenger et al., 1997). Applying measures that were developed in populations with high base rates of PTSD (e.g., veterans) can create inaccuracies. Accurate measurement across populations requires identification of optimally sensitive, specific, and efficient cutoff scores.

[1]The IES is not under copyright. [2]Copyright regulations for the SCL-90-R must be followed.

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II. DSMPTSD-III-R

RATIONAL

- *Identifies individuals who meet DSM-III-R PTSD diagnostic criteria.*
- *Requires no training to administer.*
- *Multimeasure approach.*
- *Covers all dimensions of PTSD.*
- *Can examine PTSD criteria separately.*
- *Shows strong face validity.*
- *Has good specificity.*
- *Is highly related to the IES.*
- *Shows reasonable concordance with the MMPI-PTSD.*
- *2 brief versions available:* BPTSD-12 *&* *BPTSD-6 Item.*

SCORING CRITERIA

(1). *Score over 19 on the IES total (cutoff for high level of clinical concern in civilian disasters) (see Horowitz, 1979; Steinglass and Garrote, 1990)*

(2). *Meets DSM-III-R PTSD symptom distribution criteria on the DSMPTSD-III-R (reporting at least "moderate" symptoms on any one item to meet the criteria).*

STRUCTURE

The DSMPTSD-III-R is brief, requires no training to administer, and has good reliability and validity. The DSMPTSD-III-R also has the advantage of identifying subjects who meet the symptom distribution criteria for DSM-III-R. This is important to further studies of the individual components of PTSD (intrusion, avoidance, & arousal).

Senior clinicians skilled and experienced in the diagnosis of PTSD reviewed the SCL-90-R and identified items that appropriately assessed the symptoms of DSM-III-R PTSD (Ursano et al, 1992, 1995). These SCL-90-R items were categorized according to the 17 DSM-III-R PTSD symptoms organized into the 3 symptom clusters: Reexperiencing (Criterion B), Avoidance (Criterion C), and Arousal (Criterion D). Twelve supplemental items were created to cover symptoms not identified by the SCL-90-R (see Table 1). These items were scored on a 5-point scale similar to the SCL-90-R: 0="not at all;" 1="a little bit;" 2="moderately;" 3="quite a bit;" 4="extremely."

SCORING CRITERIA

Subjects were classified as probable PTSD if they: (1). scored over 19 on the IES total (range of possible scores is 0-75 after recoding and summing, high scores represent greater symptom severity) as standardized by Horowitz et al., 1979) and; (2). met the DSM-III-R PTSD symptom distribution criteria (see Table 2), i.e., reporting at least "moderate" symptoms on any one item to meet a criterion. Thus, to meet criterion C1., one of the items (#'s 30, 79, 89, 98) had to be scored "moderate". This strategy, although having some psychometric drawbacks since different criteria have a different number of items, follows the procedures of an actual clinical interview where questions are chosen for their clarity (rather than controlling the number of inquiries). As with DSM-III-R criteria, on the DSMPTSD-III-R an individual must score at least one intrusion symptom, three avoidance symptoms and two arousal symptoms.

PSYCHOMETRICS

In previous studies of community disaster populations (Ursano et al., 1992, 1995), using a cutoff score of 19 on the MMPI-PTSD Scale (Koretsky and Peck, 1990; Lyons and Keane, 1992), the DSMPTSD-III-R showed moderate sensitivity and good specificity in 4 community samples of disaster populations (total N = 1273). Sensitivity across studies averaged 67.2%, specificity, 91.2%: false positive, 32.7; false negative, 11.0; and percentage correctly classified, 88.1%. This compares well with other research instruments used for identifying PTSD cases in community samples (e.g., Gerardi et al., 1989; Green, 1991; Kulka et al., 1991; Resnick et al., 1991; Saunders et al., 1990). The 12 Supplemental Items alone have shown high correlations with the MMPI-PTSD (r = .58 to .80).

MVA VALIDITY STUDY
Sample Size

PTSD Ratio	Time 1 PTSD (N)		Time 2 PTSD (N)	
Yes / No	Yes	No	Yes	No
15% / 85%	15	79	14	81
50% / 50%	42	42	18	18
75% / 25%	39	13	18	6

MVA VALIDITY STUDY

In order to examine the psychometric properties of the DSMPTSD-III-R in community samples with potentially different base rates of PTSD, we studied the internal consistency, concurrent validity and diagnostic accuracy of the DSMPTSD-III-R based on SCID (DSM III-R) PTSD diagnoses of PTSD in MVA subjects at 1 month post-accident (Time 1) and at 6 months (Time 2). We randomly selected subjects into 3 samples to create approximate varying rates of PTSD: 15%, 50%, and 75% (see table to the left).

Internal Consistency

At 1 month post-accident, Chronbach's alpha for the DSMPTSD-III-R items was: .77 for the DSM-III-R PTSD criterion B (reexperiencing); .77 for criterion C (avoidance); .75 for criterion D (arousal); and overall (all 17 PTSD symptoms) was .90. These alphas compared well with those of the SCID: .67 for criterion B, .66 for criterion C, .65 for criterion D, and .83 for overall (see Table 3).

Concurrent Validity

We compared the DSMPTSD-III-R and the SCID on each of the 17 DSM-III-R PTSD symptoms (at 1 month post-accident) using χ^2 analyses. The DSMPTSD-III-R showed good symptom item concurrent validity when compared with the SCID for the reexperiencing, avoidance, and arousal symptoms (14 of the 17 symptoms were significantly associated, $p<.05$). Interitem correlations are presented in Table 4.

Diagnostic Accuracy

We examined the diagnostic accuracy of the DSMPTSD-III-R based on DSM III-R SCID diagnoses of PTSD in MVA subjects at 1 and 6 months post-accident. From our original sample of 122 MVA subjects recruited approximately 2 weeks post-accident. At one month, 42 subjects were SCID diagnosed as PTSD and 81 subjects were non-PTSD. At 6 months post-accident (N = 99), 18 subjects were PTSD positive and 81 were non-PTSD.

Acute PTSD

15% Base Rate. With a base rate of 15% PTSD, the DSMPTSD-III-R correctly identified the PTSD status in 85% of the subjects (Table 5). The sensitivity (probability of having a positive test among those who have a positive diagnosis) was 67%, and the specificity (probability of having a negative test among those who have a negative diagnosis) was 89%. The positive predictive value (PPV) of the DSMPTSD-III-R (probability of having a positive diagnosis among those having a positive test) was 53%, and the negative predictive value (NPV) was 93%. Compared to the other measures, the DSMPTSD-III-R generally had high efficiency, moderate sensitivity, and strong specificity when the base rate of PTSD was low (15%).

50% Base Rate. With a base rate of 50% PTSD, the DSMPTSD-III-R correctly identified PTSD in 72% of the subjects (see Table 5), representing a slight decrease in the overall efficiency from the 15% PTSD base rate. Sensitivity decreased slightly to 56%; specificity (88%) showed little change from the lower (15%) PTSD base rate. The PPV increased substantially to 82%, and the NPV dropped to 68% with the higher PTSD base rate. Comparisons between the DSMPTSD-III-R and the other measures at 50% PTSD continued to show it at least as good or better than the other measures

75% Base Rate. When PTSD increased to 75%, the parameters of the DSMPTSD-III-R remained essentially the same as with a 50% PTSD rate (Table 5). As expected, as PTSD rate increased, the more sensitive, less specific measures (IES, SCL-90-R caseness) gave better percents correct.

Chronic PTSD:

15% Base Rate. With a 15% PTSD base rate the DSMPTSD-III-R correctly identified PTSD status in 87% subjects at 6 months post-accident (Table 6). Sensitivity was 42%, and specificity was 94%. PPV was 56%, and NPV was 90%. Compared to the other measures with a rate of 15% PTSD, the DSMPTSD-III-R showed high efficiency; low sensitivity and strong specificity.

50% Base Rate. When the base rate of PTSD increased to 50% PTSD the DSMPTSD-III-R correctly identified PTSD in 69% of the subjects (a decrease from the 15% PTSD group) (Table 6). Sensitivity increased slightly to 47%, and specificity remained about the same (93%) as the group with 15% PTSD base rate. PPV increased substantially to 89% while NPV dropped to 61%. Increasing PTSD base rate to 50% made little difference in the comparisons between the DSMPTSD-III-R vs. other measures.

75% Base Rate. Increasing the PTSD base rate to 75%, the percent correct was 61% with 100% specificity (Table 6). PPV increased to 100%, and the NPV decreased substantially to 40%. The general (SCL-90-R caseness) and more sensitive (IES) measures had better percents correct.

TEST-RETEST RELIABILITY

Test-retest reliability is particularly important in empirical studies following trauma but also complicated since there tends to be recovery from acute PTSD over time. As the trauma is processed, recollections become less vivid and intrusive over time.

In our study of MVA accidents, the 1 and 6 month DSMPTSD-III-R scale diagnoses were highly related (Chi-square 19.859, df=1, p =<.0001; Phi Coefficient = 0.478). Further test-retest reliability is indicated with shorter time frames. However, at all time points, those with PTSD were nearly 100% of the subsample of the previous times. Therefore we expect test-retest reliability of the DSMPTSD-III-R to be quite good.

EXAMINATION OF ALTERNATIVE ITEM CUTOFF SCORES

The SCL-90-R and 12 supplemental items have a range of answers from 0-4 (0="not at all" to 4= "extremely"). We determined that the most robust cutoff score for community samples was 2="moderately". However, we also examined the diagnostic accuracy of the DSMPTSD-III-R using a more lenient cutoff score of 1="a little bit") and a more stringent cutoff score of 3 ="quite a bit". When we examined the diagnostic accuracy of the DSMPTSD-III-R using an item cutoff score of 1="a little bit"), the efficiency (overall percent correct) dropped from 85% to 66% at 1 month in the low PTSD group (15%), stayed about the same in the 50% PTSD group, but increased in the 75% PTSD group from 67% to 86%) (see Table 7). We also examined the diagnostic accuracy of the DSMPTSD-III-R using a cutoff score of 3="quite a bit" (for results, see Table 7). For diagnostic accuracy of alternative item cut-off scores at 6 months, see Table 8.

III. DSMPTSD-IV

Rational

- *Identifies individuals who meet DSM-IV PTSD diagnostic criteria.*
- *Requires no training to administer.*
- *Multimeasure approach.*
- *Covers all dimensions of PTSD.*
- *Can examine PTSD criteria separately.*
- *Shows strong face validity.*
- *Has good specificity.*
- *Is highly related to the IES.*
- *Shows reasonable concordance with the MMPI-PTSD.*
- *2 brief versions available:* BPTSD-12 & *BPTSD-6 Item.*

Scoring Criteria

(1). *Score over 19 on the IES total (cutoff for high level of clinical concern in civilian disasters) (see Horowitz, 1979; Steinglass and Gerrity, 1990)*

(2). *Meets DSM-IV PTSD symptom distribution criteria on the DSMPTSD-IV (reporting at least "moderate" symptoms on any one item to meet the criteria).*

Structure

The DSMPTSD-III-R has been revised for use in disaster populations to assess PTSD based on DSM-IV criteria. This new scale, the DSMPTSD-IV, showed good predictive validity relative to acute stress disorder (see Stabb et al., 1996).

Scoring Criteria

In DSM-IV the stressor has been redefined to include both objective and subjective factors. To qualify for PTSD in DSM-IV a person must show at least one symptom from Criterion B (Reexperiencing); at least three symptoms from Criterion C (Avoidance), and at least two symptoms from Criteria D (Arousal). Importantly, however, DSM-III-R Criterion D Item D6 ("Physiological reactivity") (Table 2) was moved in DSM-IV to Criterion B (Reexperiencing) (see item B5, Table 9).

Psychometrics

In order to assess psychometrics using the DSM-IV, we rescored the MVA DSM-III-R SCID data adjusting for DSM-IV changes. The DSM-IV PTSD diagnosis also requires 1) fear and 2) clinical impairment. Because of the severity of the event in the MVA sample, we were reasonably sure of meeting these criteria. In future studies using DSMPTSD-IV we recommend the inclusion of 2 additional questions:

1. Did you feel frightened by [*the event*]?

0	1	2	3	4
not at all	*a little bit*	*moderately*	*quite a bit*	*extremely*

2. Did your symptoms interfere with your life or work?

0	1	2	3	4
not at all	*a little bit*	*moderately*	*quite a bit*	*extremely*

MVA VALIDITY STUDY

To examine the psychometric properties of the DSMPTSD-IV in community samples, we rescored the MVA PTSD data based on DSM-IV in MVA subjects at 1 and 6 months post-accident. We examined the same 3 samples analyzed using DSMPTSD-III-R to create approximate varying rates of PTSD: 15%, 50%, and 75%. Sample size remained the same as in the previous study.

DIAGNOSTIC ACCURACY

We examined the diagnostic accuracy of the DSMPTSD-IV as described for the DSM-III-R. The diagnostic accuracy of the DSMPTSD-IV was based on the SCID PTSD diagnoses of PTSD in the MVA subjects. As with the DSM-III-R data, the DSM-IV results were compared to data from other standard PTSD measures with base rates of 15%, 50%, and 75% PTSD at 1 month post-accident (for results, see Table 5) and at 6 months (see Table 6). Results using the DSM-IV were essentially the same as the DSM-III-R findings for the same MVA samples.

TEST-RETEST RELIABILITY

The DSMPTSD-IV PTSD diagnoses at 1 and 6 months were highly related (Chi-square 17.326, df=1, p =<.0001; Phi Coefficient = 0.446). Further test-retest reliability is indicated. Furthermore, those with PTSD were nearly 100% of the subsample of the previous times.

EXAMINATION OF ALTERNATIVE ITEM CUTOFF SCORES

As with the DSM-III-R, we examined the diagnostic accuracy of the DSMPTSD-III-R using a more lenient cutoff score of 1="a little bit" and a more stringent cutoff score of 3="quite a bit" at 1 month post-accident (for results, see Table 7), and at 6 months (see Table 8). Results using the DSM-IV were similar to the DSM-III-R findings. We concluded that the most robust cutoff score when using the DSM-IV in community samples was 2="moderately".

IV Brief DSMPTSD

Two brief measures of the DSMPTSD-III-R, the BPTSD-12 item and BPTSD-6 item, are good screening measures to identify individuals who meet DSM-III-R and DSM-IV criteria for PTSD, particularly acute PTSD, and may be in need of further evaluation (see Ursano et al., 1995). Using cutoff scores to maintain high sensitivity, the BPTSD-12 and BPTSD-6 can be used by clinicians as a screening measure to identify MVA victims who meet criteria for PTSD and may be in need of further evaluation.

In order to develop a brief measure for use in clinical settings, the 12 supplemental items (see Table 1) were examined as an independent brief scale (BPTSD-12). Items were scored 0-4 as previously and summed (range of the BPTSD-12 was 0-48). At 1 month post-accident, Chronbach's alpha for the BPTSD-12 was 0.92. For clinical use to identify patients in need of further evaluation, a cutpoint >5 gave a sensitivity of 95%, specificity of 68%, efficiency of 77%, PPV of 60% and a NPV of 96% (see Table 10). A cutpoint >8 had a sensitivity of 77%, specificity of 88%, efficiency of 85%, a PPV of 77%, and NPV of 88% (Table 10). For a cutpoint >10, sensitivity was 64%, specificity was 94%, efficiency was 84%, PPV was 83% and NPV was 84% (Table 10).

The BPTSD-6, a subset of the BPTSD-12, consists of 6 items found to be the best predictors of PTSD. The range for the BPTSD-6 was 0-24 (items scored 0-4 as previously and summed). Using stepwise logistic regression, the best predictors of PTSD from the BPTSD-12 were items: 91, 92, 97, 99, 100, and 102. Chronbach's alpha for the BPTSD-6 was .89. For clinical use a cutpoint >2 gave a sensitivity of 95%, specificity of 71%, efficiency of 79%, PPV of 62%, and NPV of 97% (see Table 10). A cutpoint >4 had a sensitivity of 77%, specificity of 87%, efficiency of 84%, PPV of 75%, and NPV of 88% (Table 10). For a cutpoint >6, sensitivity was 59%, specificity was 95%, efficiency was 83%, PPV was 85%, and NPV was 82% (Table 10).

We would expect the BPTSD-12 to be more robust because it has more items and better represents the core PTSD criteria. When we rescored the MVA SCID data, adjusting for DSM-IV changes, the diagnostic accuracy of the BPTSD-12 and BPTSD-6 was unchanged.

III. CONCLUSIONS

In the MVA samples, the DSMPTSD-III-R showed good internal consistency for each symptom cluster and for all 17 PTSD symptoms. The DSMPTSD-III-R symptoms showed good concurrent validity with the SCID diagnoses. The DSMPTSD-III-R had moderate to high efficiency depending on PTSD rate. The DSMPTSD-III-R generally had good specificity, moderate sensitivity, and good overall percent correct, particularly for acute PTSD.

The diagnostic accuracy of the DSMPTSD-IV was essentially unchanged from the DSMPTSD-III-R. However, in order to meet DSM-IV criteria for PTSD we recommend inclusion of 2 additional questions as on DSMPTSD-IV:

1. Did you feel frightened by [*the event*]?

0	1	2	3	4
not at all	*a little bit*	*moderately*	*quite a bit*	*extremely*

2. Did your symptoms interfere with your life or work?

0	1	2	3	4
not at all	*a little bit*	*moderately*	*quite a bit*	*extremely*

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Table 1

TWELVE SUPPLEMENTAL PTSD ITEMS[a]

DSMPTSD-III-R and DSMPTSD-IV

91. Repeated, unpleasant dreams or nightmares
92. Feelings of reliving something very unpleasant and traumatic
93. Avoiding certain things, places, or activities because they remind you of something unpleasant or traumatic
94. Feeling hyperalert
95. Feeling easily tired
96. Less interested in activities once important to you
97. Feeling detached or estranged from others
98. Less upset or angry about things which once caused you to be upset or angry
99. Trying to avoid certain thoughts and feelings because they remind you of something unpleasant or traumatic
100. Feeling distressed because something reminds you of an unpleasant or traumatic event
101. Less happy or pleased about things that once caused you to be happy or pleased
102. Feeling easily startled

[a]Items are scored on a 5-point scale: 0=not at all; 1=a little bit; 2=moderately; 3=quite a bit; 4= extremely

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Table 2

DSMPTSD-III-R PTSD ITEMS

Grouped by DSM-III-R PTSD Criteria[a]

DSM-III-R CRITERIA	SCL-90-R & SUPPLEMENTAL ITEMS[b]
CRITERION B: REEXPERIENCING	
B1. Intrusive thoughts	3, 86
B2. Nightmares	91
B3. Flashbacks	92
B4. Emotionally upset	23, 47, 100
CRITERION C: AVOIDANCE	
C1. Avoid thoughts & feelings	99
C2. Avoid places, activities	20, 93
C3. Psychogenic amnesia	9
C4. Loss of interest	5, 14, 32, 95, 96, 101
C5. Detached from others	29, 36, 77, 88, 97
C6. Restricted affect	30, 79, 89, 98
C7. Foreshortened sense of future	54, 59
CRITERION D: AROUSAL	
D1. Sleep disturbance	44
D2. Irritability	11, 24, 63, 67, 74
D3. Difficulty Concentrating	55
D4. Hyperalertness	57, 78, 94
D5. Increased startle	102
D6. Physical reactivity	2, 33, 72

[a] All SCL-90-R item numbers greater than 90 are Supplemental Items (see Table 1).

[b] To qualify for DSM-III-R PTSD a person must show at least one intrusion symptom, three avoidance and two arousal symptoms.

Table 3

INTERNAL CONSISTENCY

DSMPTSD-III-R and the SCID

DSM-III-R	# Items	DSMPTSD-III-R	SCID
CRITERION B: REEXPERIENCING	4	0.77	0.67
CRITERION C: AVOIDANCE	7	0.77	0.66
CRITERION D: AROUSAL	6	0.75	0.65
ALL 17 DSM-III-R ITEMS	17	0.90	0.83

[a] Chronbach's Alpha: Standardized alpha, 1 month data for DSMPTSD-III-R.
(Removal of IES from DSMPTSD-III-R does not substantially change alpha's. Six month data were similar.)

Table 4

INTERITEM CORRELATIONS: DSMPTSD-III-R AND SCID

ITEM	CORRELATION: DSMPTSD-III-R & SCID	MEAN OF SIGNIFICANT CORRELATIONS	MEAN OF CORRELATIONS
B CRITERION		.38	.29
B1	.40		
B2	.34		
B3	.06		
B4	.34		
Summary (*range*)	.29 (p=.0013)		
C CRITERION		.31	.26
C1	.44		
C2	.30		
C3	-.04		
C4	.19		
C5	.44		
C6	.22		
C7	.27		
Summary (*range*)	.50 (p=.0001)		
D CRITERION		.31	.26
D1	.40		
D2	.38		
D3	.19		
D4	-01		
D5	.44		
D6	.20		
Summary (*range*)	.40		

Table 5

ACUTE PTSD[a]: DIAGNOSTIC ACCURACY

DSMPTSD-III-R; DSMPTSD-IV; MMPI; IES; SCL-90-R

% POSITIVE PTSD[b]	MEASURE	CUTOFF SCORE	% CORRECT	SENSITIVITY[c]	SPECIFICITY[d]	POSITIVE PREDICTIVE VALUE[E]	NEGATIVE PREDICTIVE VALUE[F]
15% PTSD							
	DSMPTSD-III-R	19	.85	.67	.89	.53	.93
	DSMPTSD-IV	19	.86	.73	.88	.55	.94
	MMPI-PTSD	14	.73	.47	.78	.29	.89
		19	.81	.27	.91	.36	.87
		30	.87	.20	100	100	.87
	IES	8.5	.36	100	.21	.22	100
		19	.51	.89	.42	.26	.94
	SCL-90-R	GSI Case	.76	.67	.78	.40	.91
		Total Case	.63	.78	.60	.30	.92
50% PTSD							
	DSMPTSD-III-R	19	.72	.56	.88	.82	.68
	DSMPTSD-IV	19	.78	.64	.92	.89	.72
	MMPI-PTSD	14	.61	.45	.78	.68	.58
		19	.60	.29	.93	.80	.56
		30	.17	.17	100	100	.54
	IES	8.5	.60	100	.19	.55	100
		19	.62	.91	.33	.58	.78
	SCL-90-R	GSI Case	.73	.69	.76	.74	.71
		Total Case	.69	.81	.57	.65	.75
75% PTSD							
	DSMPTSD-III-R	19	.67	.56	100	100	.43
	DSMPTSD-IV	19	.73	.64	100	100	.48
	MMPI-PTSD	14	.57	.45	.93	.95	.36
		19	.46	.29	100	100	.32
		30	.38	.17	100	100	.29
	IES	8.5	.82	100	.29	.81	100
		19	.80	.90	.50	.84	.64
	SCL-90-R	GSI Case	.75	.69	.93	.97	.50
		Total Case	.79	.81	.71	.90	.56

[a] Acute PTSD = 1 month post-accident.

[b] Based on the Structured Clinical Interview for DSM-III-R (SCID).

[c] Sensitivity = proportion of cases correctly classified.

[d] Specificity = proportion of non-cases correctly classified.

[e] Positive Predictive Value = proportion of true cases among scale-identified (probability positive diagnosis of those with positive tests).

[f] Negative Predictive Value = proportion of true negatives among scale-identified (probability of positive diagnosis of those with positive tests).

Table 6

CHRONIC PTSD[a]: DIAGNOSTIC ACCURACY

DSMPTSD-III-R; DSMPTSD-IV; MMPI; IES; SCL-90-R:

% POSITIVE PTSD[b]	MEASURE	CUTOFF SCORE	% CORRECT	SENSITIVITY[C]	SPECIFICITY[D]	POSITIVE PREDICTIVE VALUE[E]	NEGATIVE PREDICTIVE VALUE[F]
15% PTSD	DSMPTSD-III-R	19	.87	.42	.94	.56	.90
	DSMPTSD-IV	19	.87	45	.94	.56	.91
	MMPI-PTSD	14	.80	.57	.84	.38	.92
		19	.88	.57	.94	.62	.93
		30	.87	.21	.99	.75	.88
	IES	8.5	.55	100	.47	.25	100
		19	.77	.85	.76	.38	.97
	SCL-90-R	GSI Case	.82	.61	.85	.42	.93
		Total Case	.75	.77	.74	.34	.95
50% PTSD	DSMPTSD-III-R	19	.69	.47	.93	.89	.61
	DSMPTSD-IV	19	.70	.53	.87	80	.65
	MMPI-PTSD	14	.69	.61	.78	.73	.67
		19	.75	.61	.89	.85	.70
		30	.28	.28	.94	.83	.57
	IES	8.5	.79	100	.56	.72	100
		19	.83	.83	.75	.79	.80
	SCL-90-R	GSI Case	.77	.72	.82	.81	.84
		Total Case	.83	.83	.82	.83	.82
75% PTSD	DSMPTSD-III-R	19	.61	.47	100	100	.40
	DSMPTSD-IV	19	.62	.53	.83	89	.42
	MMPI-PTSD	14	.71	.61	100	100	.46
		19	.71	.61	100	100	.46
		30	.46	.28	100	100	.32
	IES	8.5	.92	100	.67	.90	100
		19	.88	.83	100	100	.67
	SCL-90-R	GSI Case	.79	.72	100	100	.54
		Total Case	.79	.83	.67	.88	.57

[a] Chronic PTSD = 6 months post-accident

[b] Based on the Structured Clinical Interview for DSM-III-R (SCID)

[c] Sensitivity = Proportion of true PTSD subjects correctly identified.

[d] Specificity = Proportion of true non-PTSD subjects correctly identified.

[e] Positive Predictive Value = Proportion of true cases among scale-identified

[f] Negative Predictive Value = Proportion of true negatives among scale-identified

Table 7

ACUTE PTSD[a]: ALTERNATIVE ITEM CUT-OFF SCORES[b]

DSMPTSD-III-R & DSMPTSD-IV

PERCENT OF SAMPLE WITH POSITIVE PTSD	DSMPTSD MEASURE	CUTOFF	% CORRECT	SENSITIVITY[c]	SPECIFICITY[D]	POSITIVE PREDICTIVE VALUE[E]	NEGATIVE PREDICTIVE VALUE[F]
15% PTSD							
	DSMPTSD-III-R	Level 1	.66	.93	.61	.31	.98
		Level 2	.85	.67	.89	.53	.93
		Level 3	.90	.40	1.00	1.00	.90
	DSMPTSD-IV	Level 1	.61	.93	.55	.29	.98
		Level 2	.86	.73	.88	.55	.94
		Level 3	.89	.33	1.00	1.00	.89
50% PTSD							
	DSMPTSD-III-R	Level 1	.71	.90	.54	.65	.85
		Level 2	.72	.56	.88	.82	.68
		Level 3	.65	.28	1.00	1.00	.59
	DSMPTSD-IV	Level 1	.72	.90	.54	.66	.84
		Level 2	.78	.64	.92	.89	.72
		Level 3	.64	.28	1.00	1.00	.58
75% PTSD							
	DSMPTSD-III-R	Level 1	.86	.90	.77	.92	.71
		Level 2	.67	.56	1.00	1.00	.43
		Level 3	.46	.28	1.00	1.00	.32
	DSMPTSD-IV	Level 1	.85	.90	.62	.90	.69
		Level 2	.73	.64	1.00	1.00	.48
		Level 3	.46	.28	1.00	1.00	.32

[a] Acute PTSD = 1 month post-accident

[b] Cut-Off Scores: Level 1= "a little bit;" Level 2= "moderate;" Level 3= "quite a bit."

[c] Sensitivity = proportion of cases correctly classified.

[d] Specificity = proportion of non-cases correctly classified.

[e] Positive Predictive Value = proportion of true cases among scale-identified (probability positive diagnosis of those with positive tests)

[f] Negative Predictive Value = proportion of true negatives among scale-identified (probability of positive diagnosis of those with positive tests)

Table 8

CHRONIC PTSD[a]: ALTERNATIVE ITEM CUT-OFF SCORES[b]

DSMPTSD-III-R & DSMPTSD-IV

PERCENT OF SAMPLE WITH POSITIVE PTSD	MEASURE	CUTOFF	% CORRECT	SENSITIVITY[c]	SPECIFICITY[D]	POSITIVE PREDICTIVE VALUE[E]	NEGATIVE PREDICTIVE VALUE[F]
15% PTSD							
	DSMPTSD-III-R	Level 1	.83	.75	.84	.45	.95
		Level 2	.87	.42	.94	.56	.90
		Level 3	.84	.08	.99	.50	.86
	DSMPTSD-IV	Level 1	.84	.73	.86	.47	.95
		Level 2	.87	.45	.94	.55	.91
		Level 3	.84	.09	.97	.50	.86
50% PTSD							
	DSMPTSD-III-R	Level 1	.78	.76	.80	.81	.75
		Level 2	.69	.47	.93	.89	.61
		Level 3	.53	.18	.93	.75	.50
	DSMPTSD-IV	Level 1	.80	.80	.80	.80	.80
		Level 2	.70	.53	.87	.80	.65
		Level 3	.53	.20	.86	.60	.52
75% PTSD							
	DSMPTSD-III-R	Level 1	.83	.76	1.00	1.00	.60
		Level 2	.61	.47	1.00	1.00	.40
		Level 3	.39	.18	1.00	1.00	.30
	DSMPTSD-IV	Level 1	.81	.80	.83	.92	.62
		Level 2	.62	.53	.83	.89	.42
		Level 3	.38	.20	.83	.75	.29

[a] Acute PTSD = 1 month post-accident

[b] Cut-Off Scores: Level 1= "a little bit;" Level 2= "moderate;" Level 3= "quite a bit."

[c] Sensitivity = proportion of cases correctly classified.

[d] Specificity = proportion of non-cases correctly classified.

[e] Positive Predictive Value = proportion of true cases among scale-identified (probability positive diagnosis of those with positive tests)

[f] Negative Predictive Value = proportion of true negatives among scale-identified (probability of positive diagnosis of those with positive tests)

Table 9

DSMPTSD-IV Items

DSM-IV Criteria[a]	SCL-90-R/Supplemental Items[b]
Criterion B: Reexperiencing	
B1. Intrusive thoughts	3, 86
B2. Nightmares	91
B3. Flashbacks	92
B4. Emotionally upset	23, 47, 100
B6. Physical reactivity[c]	2, 33, 72
Criterion C: Avoidance	
C1. Avoid thoughts & feelings	99
C2. Avoid places, activities	20, 93
C3. Psychogenic amnesia	9
C4. Loss of interest	5, 14, 32, 95, 96, 101
C5. Detached from others	29, 36, 77, 88, 97
C6. Restricted affect	30, 79, 89, 98
C7. Foreshortened sense of future	54, 59
Criterion D: Arousal	
D1. Sleep disturbance	44
D2. Irritability	11, 24, 63, 67, 74
D3. Difficulty Concentrating	55
D4. Hyperalertness	57, 78, 94
D5. Increased startle	102

[a] To qualify for DSM-IV PTSD a person must show at least one intrusion symptom, three avoidance & two arousal symptoms.

[b] Included are the supplemental items (all items greater than 90) (see Table 1 for supplemental items).

[c] In DSM-III-R item B5. "Physical Reactivity" was classified under Criterion D, item D6 (see Table 2).

Table 10

BRIEF PTSD MEASURES: DIAGNOSTIC ACCURACY

BPTSD-12 Item[a] and BPTSD-6 Item[b]

	CUTPOINT	SENSITIVITY	SPECIFICITY	POSITIVE PREDICTIVE VALUE	NEGATIVE PREDICTIVE VALUE	PERCENT CORRECT
BPTSD-12	≥ 5	.95	.68	.60	.96	.77
	≥ 6	.90	.74	.64	.94	.79
	≥ 7	.85	.79	.67	.91	.81
	≥ 8	.77	.88	.77	.88	.85
	≥ 9	.62	.91	.79	.86	.84
	≥ 10	.64	.94	.83	.84	.84
	≥ 11	.62	.96	.89	.83	.85
BPTSD-6	≥ 1	.97	.53	.51	.98	.68
	≥ 2	.95	.71	.62	.97	.79
	≥ 3	.85	.81	.69	.91	.82
	≥ 4	.77	.87	.75	.88	.84
	≥ 5	.64	.91	.78	.84	.82
	≥ 6	.59	.95	.85	.82	.83

[a] BPTSD-12 Item: range=0-24

[b] BPTSD-6 Item: range=0-48