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<b>13. SUPPLEMENTARY NOTES</b>						
<b>14. ABSTRACT</b> Our goal was to design and validate an inventory to assess multiple dimensions of PTSD-related functional impairment experienced by active duty service members and veterans. A series of focus groups and individual assessments using interviews and self-report questionnaires were used to understand the multiple domains of functional impairment. Utilizing this information, the 80-item Inventory of Psychosocial Functioning (IPF) was developed, as well as a brief 7-item version. The psychometric properties of these inventories were tested in Phases II and III. By creating and validating an inventory to assess PTSD-related functional impairment we hope to offer a useful tool for clinicians, researchers and military leaders. This measure will have enormous value in identifying individuals with significant levels of impairments across multiple domains and for promoting more efficient allocation of resources.						
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## INTRODUCTION

The goal of this project was to design and validate a psychometrically sound inventory of PTSD-related functional impairment for veterans and active duty service members. Through funding from this project, we developed the Inventory of Psychosocial Impairment (IPF), which assesses multiple dimensions of functioning. This project subsumed three specific objectives: (1) define and systematically operationalize each of the variables representing functional impairment; (2) collect data from an initial test development sample of veterans and conduct first-stage psychometric analyses; (3) cross validate results from the initial test development using an independent sample and to establish criterion-related validity of the IPF.

The study represents collaboration between investigators at the National Center for PTSD, Boston VA Healthcare System, VA Pacific Islands Healthcare System and Walter Reed Army Institute for Research. Key personnel include PI Dr. Brian Marx and co-investigators Dr. Paula Schnurr, Dr. James Spira, Dr. Terence Keane, and Carole Lunney (consultant) from the National Center for PTSD, Dr. Frank Weathers (consultant) from Auburn University. Dr. Charles Hoge and Dr. Paul D. Bliese, from the Walter Reed Army Institute of Research, collaborated with this project by including a brief version of the IPF in an ongoing study with active duty military personnel.

For Phase I, 53 veterans met all of the eligibility criteria for the study and were enrolled; for Phase II, 284 veterans were enrolled and during Phase III, we enrolled a total of 393 veterans at the VA Boston and Pacific Islands Healthcare Systems. During Phase III, we also asked 100 of the veterans who participated to return for a second session in order to assess the test-retest reliability of our measure. This slightly exceeded our original target for recruitment of veterans (N=725). As shown in [Tables 2 and 8](#) our actual veteran sample characteristics closely matched our expected veteran sample characteristics. Fifteen percent of the sample is female veterans and the sample is balanced for age and racial/ethnic diversity. Finally, during Phase III we collected data on a brief version of our scale from 2,801 active duty military personnel in collaboration with staff at Walter Reed Army Institute of Research (WRAIR). Thus, our actual recruitment for the study exceeded what we initially proposed.

We met all of our proposed study goals in terms of study design and implementation ([See Appendix A](#)), data collection ([See Appendix B, C, and G](#)), and timely data analysis with subsequent presentations and publications ([See Reportable Outcomes](#)). Based on the work supported by this project, we developed the Inventory of Psychosocial Impairment (B and C), which has already been received with much enthusiasm and interest by several research groups and clinicians ([See Appendix D](#)).

## BODY

1. Research Staff Training: Trained post-doctoral fellow and data-collection consultant. All materials needed for the project were collected and prepared for use.

The first two months of the study were spent training the post-doctoral fellows on the administration of the Clinician Administered PTSD Scale for DSM-IV, with training led by Dr. Frank Weathers. During this period, research technicians were also trained on screening potential participants over the phone, proper documentation of Informed Consent and HIPAA form, and proper administration of study materials. During this initial period, any minor revisions made to the study protocol were submitted to the Institutional Review Board of the VA Boston Healthcare System for approval. All initial approvals were received prior to the start of data collection. In addition to a certificate of confidentiality from NIH was obtained prior to data collection. The final versions of the study protocol, manual of operations, study materials, and all study site IRB approvals were submitted to OHRP and final OHRP approval was obtained prior to commencement of data collection. During this time, all of the measures were collected and collated in packets for use.

2. Phase I: Recruited focus group participants and collected data. Data entry.

In the first phase of this project, we convened a series of focus groups, whose members were 53 male and female veterans using services at the VA Boston Healthcare System. These groups were used to set forth formal definitions of the PTSD-related functional impairment variables, create an item pool, and refine that pool with emphasis on standards of content validity, both content relevance and content breadth.

Using what in psychometrics is called the rational method to instrument construction (Edwards, 1970; Hulin, Drasgow, & Parsons, 1983; Nunnally, 1978), the first step was to carefully delineate complete and clearly expressed written definitions of the PTSD-related dimensions of functioning and quality of life. An examination of the most up-to-date published literature was conducted to identify any new and pressing concerns and controversies that should be incorporated into the content of scale items. Another important source of information was from veterans of various conflicts with military-related PTSD in the twelve focus group sessions (nine focus groups with men and three focus groups with women), each including 3-10 veterans and two research staff members as leaders. The intent was to pose a series of structured questions aimed at eliciting group members' functional impairments and quality of life issues related to their PTSD. In the end, we obtained clear and unambiguous definitions of each of the primary dimensions of functional impairment, based on both the scientific literature and the perspectives of veterans themselves.

To facilitate the coding and analysis of focus group data, all sessions were audiotaped with the consent of participants. We used a tape-based analytic strategy that involved developing an abridged transcript of the relevant and useful portions of the discussion (Krueger, 1998b). The relevance of the discussion was determined by whether it contained a reference to any of our previously identified PTSD-related impairment themes or by whether it introduced an additional theme that we had not previously considered. Five study staff, two of whom had been physically present during the focus groups, listened to an audiotape of each focus group. This approach is consistent with the recommendation that at least one person who was physically present in the room when the focus group was conducted and who was familiar with the context of the discussion participate in data analysis (Krueger, 1994). Coders were provided with a list of themes and definitions that they were told may or may not have been discussed during the focus group. Coders listened to audiotapes twice. First, they simply listened to become familiar with the flow of the conversation and the topics that were raised. On the second review, coders would stop the audiotape each time they heard a participant mention an identified a PTSD-related impairment theme and to record verbatim the sentence or sentences in which it was discussed. Coders were also instructed to stop the audiotape if they hear a participant describe any other PTSD-related impairment theme that was not included among our previously identified list and to record this sentence or sentences as well. Finally, coders noted any novel terminology participants used to describe their experiences. Next, the coders met to discuss their review of the tapes. To the extent that coders agreed with one another regarding whether quotes were examples of identified themes (i.e., constructs), quotes relevant to each of the key constructs were compiled. Coders also introduced additional constructs for consideration in these meetings. As recommended by focus group experts (Krueger, 1994), newly nominated and ongoing refinements of conceptualizations were incorporated in the list of PTSD-related impairments and definitions used by coders throughout the process. The information in the final compilations was then be used to refine definitions of constructs as needed, to identify additional constructs, and to inform item development.

### **Item Generation and Refinement**

Next, a table of specifications (Aiken, 1994) was employed to aid in the orderly construction of items across content areas. In this regard, for each of the functional impairment dimensions, separate aspects of the definition were identified, and items were written so as to systematically represent these aspects. The goal was to write an initial pool of about 20 items for each concept. Items followed a 7-point Likert-type response scale, with options ranging from "never" to "always." Care was taken to balance the valence of item keying so as to obviate any form of acquiescence response style. The language and comprehension level of the items was monitored via the Flesch-Kincaid computation (Flesch, 1949), with a goal of no higher than the recommended 7<sup>th</sup> grade level for instruments intended for the general population. The Flesch-Kincaid grade level for the final version of each of the subscales ranged from 5.0 – 7.6, confirming that the reading ease of all subscales was no higher than the recommended level.

Finally, as a check for item quality, a panel of experts (including Drs. Hoge, Bliese, Schnurr, Weathers) was asked to review the item pool. This panel included doctoral-level clinicians at the National Center for PTSD who have experience in stress research with military veteran populations, as well as career military personnel. Panel members were given the pool of candidate items and the formal definitions from which the items were derived and asked to verify item content. In addition, each content expert was asked to provide judgments regarding the content saturation of each item vis-à-vis its respective definition. We also asked the VA Boston's Diversity Committee to review the items for language and content bias. They were also asked to comment on item

wording and clarity and provide any additional feedback that might improve the statements. Format style and item content that were not consensually endorsed because of content deficiency, lack of clarity, or other reasons were eliminated.

The end result of these steps yielded The Inventory of Psychosocial Impairment (IPF). The IPF is an 80-item self-report measure designed to assess functional impairment across multiple domains experienced by active duty service members and veterans. Table 1 presents some sample items from the IPF.

On the IPF, respondents rate their functioning over the past 30 days. Items are rated on a 7-point scale ranging from 0 (“never”) to 6 (“always”) (in the initial iteration of the IPF, we had the likert scale on a 7-point scale, ranging from 1-7; however, later on, we recognized it would be clearer if we kept the same 7-point likert scale, but shift it to range from 0 to 6). The IPF yields an overall score and a score for each of seven subscales: Romantic relationships with a spouse or partner, Family relationships, Work, Friendships and socializing, Parenting, Education, and Self-Care. Subscale scores are computed by taking the mean of the responses to each item within that subscale. In the first iteration of the IPF, there were two questions at the end of each domain subscale that asked respondents to rate how much overall difficulty they experienced in that particular domain of functioning in the past 30 days and the amount of distress they experienced in relation to those difficulties in the past 30 days. These 2 items were not included in the subscale total scores but rather were used as broad indicators of functional impairment and related distress in those functional domains. Data analyses revealed that these two items were correlated with the total score of that domain ( $r = .42$  to  $.62$ ) as well as with each other ( $r = .69$  to  $r = .94$ ). As a result, we decided that only one of these items would be needed for a brief and general assessment of each functional domain. We named this measure the Brief Inventory of Psychosocial Functioning (B-IPF).

Because the IPF assesses functioning over the past 30 days, respondents may skip out of subscales of the instrument that do not apply to them. For example, if they have not been in contact with family during the past 30 days, they may skip the subscale on family relationships and proceed to the next section.

Generally, for individuals who complete the entire measure (i.e. total of 7 domains), the time required to complete it ranges from 9-16 minutes. On average, each subscale takes approximately 2 minutes to complete. Most veterans (25%-30%) in our sample completed 4 IPF subscales.

Scoring: The IPF yields a grand mean score across all scales completed by the respondent as well as scores for each of the 7 subscales completed. Grand mean score: mean of all completed IPF scales. As participants may skip certain subscales that do not apply to them, the sum of all completed IPF scale scores is divided by the number of scales completed by the participant. Each subscale is scored by a sum of all scored items (correcting for reverse coded items), divide the total by maximum possible score, and multiply by 100. Each subscale yields a score on a 0-100 range. A copy of the SPSS scoring syntax is provided in Appendix E.

### Sample Items of the IPF

Table 1 contains sample items for each IPF scale.

Subscale	Sample Items	Response format
<b>Social</b>		
Romantic	<ul style="list-style-type: none"> <li>• I showed interest in my spouse or partner's activities.</li> <li>• I had trouble giving emotional support to my spouse or partner.</li> <li>• My partner or spouse and I did activities that brought us closer together.</li> </ul>	7-point Likert Scale (0 = Never and 6 = Always).
Family	<ul style="list-style-type: none"> <li>• I stayed in touch with family members (e.g. phone calls, e-mails, texts).</li> <li>• I had trouble settling arguments or disagreements with family members.</li> </ul>	7-point Likert Scale (0 = Never and 6 = Always).

Friendships	<ul style="list-style-type: none"> <li>• I was willing to meet new people.</li> <li>• I stayed in touch with friends (returning phone calls, emails, visiting).</li> <li>• My friends and I did activities that brought us closer together.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
Parenting	<ul style="list-style-type: none"> <li>• My children were able to depend on me for whatever they needed.</li> <li>• I was interested in my children's activities.</li> <li>• I had trouble communicating with my children.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
<b>Occupational</b>		
Work	<ul style="list-style-type: none"> <li>• I performed my job to the best of my ability.</li> <li>• I took responsibility for my work.</li> <li>• I was able to perform my work duties without needing extra help.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
Education	<ul style="list-style-type: none"> <li>• I arrived on time for my classes.</li> <li>• I had trouble remembering what the instructor said.</li> <li>• I got along with classmates and/or instructors.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
<b>Daily living</b>		
Self Care	<ul style="list-style-type: none"> <li>• I had trouble keeping up with household chores (for example, cleaning, cooking, yard work, etc).</li> <li>• I had trouble managing my finances.</li> <li>• I spent time doing activities or hobbies that were fun or relaxing.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).

<b>Brief IPF</b>		
	Overall in the past 30 days....	7-point Likert Scale (0 = <i>Not at all</i> and 6 = <i>Very much</i> ).
	<ul style="list-style-type: none"> <li>• I had trouble in my romantic relationship with my spouse or partner.</li> <li>• I had trouble at work.</li> <li>• I was distressed or emotionally upset because of my difficulties at school.</li> </ul>	

3. Phase II: Recruited participants and collected data. Entered data from those who had completed the study.

Finished recruitment and data collection for Phase II. Data entry.

Analyses were run from the Phase II data collection to create Psychosocial Impairment measure that was validated in Phase III

Phase II had the objective of selecting the best final sets of items to measure the identified dimensions of PTSD-related functional impairment as well as to assess criterion-related validity. Using empirically derived item and scale characteristics, we conducted preliminary analyses of the data collected. For all scales, content relevance and content breadth, in line with the formal definition of each factor, was maintained.

Data collection and additional instrumentation. The test development sample was selected in accordance with the sampling plan. Two hundred and eighty four consenting veterans at the VA Boston Healthcare System completed diagnostic interviews and a battery of self-report questionnaires for approximately two hours. Data from participants were entered throughout this period of the study. Demographic characteristics of Phase II's sample are presented in Table 2.

*Table 2. Demographics and Respondent Characteristics for the Validation Sample, VA Boston Healthcare System, Phase II*

<b>Functional Impairment Study Phase II</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	
Gender	$\underline{n} = 284$	%
Male	248	87
Female	36	13
Age Group	$\underline{n} = 284$	%
21-39	40	14
40-59	40	14
>60 25	72	25
Race	$\underline{n} = 281$	%
White (Non-Hispanic)	192	67
Black (Non-Hispanic)	74	26
American Indian	6	2
Asian or Pacific Islander	1	0.4
Hispanic	8	2.9
Branch of Military	$\underline{n} = 276$	%
Army	144	51
Air Force	30	11
Navy	65	23
Marines	29	10
Other	8	3
Type of Duty	$\underline{n} = 185$	%
Active	132	46
Guard/Reserves	15	5
Both	37	13
Military Theater	$n = 257$	%
WWII	5	1.8
Vietnam	81	28.4
Post-Vietnam	22	7.7
Korea	6	2.1
Persian Gulf	36	12.6
OIF/OEF	47	16.5
Other	16	5.6
None	44	15.4



## Data Analyses from Phase II

From the initial dataset of 284 veterans, 9 cases were excluded from psychometric analyses because a validity screen indicated these participants answered all 0s or all 6s to any of the IPF subscales, and because the measure has reverse coded items, any respondent who answered all 0s or all 6s is likely not a valid responder.

Data from these remaining 275 veterans showed that the 80 items of the IPF have strong internal consistency, with a Cronbach's alpha coefficient of .91. For each IPF subscale, Cronbach's alphas ranged from .78 to .88. Additionally, the corrected item-total correlations by subscale range from  $r = .19$  to  $r = .76$ . The means and standard deviations for each IPF subscale are presented below.

### Results:

Table 3. Scale Characteristics, VA Boston Healthcare System, Phase II

Functional Impairment Study Phase II						
IPF scale	No. of Items	Mean	SD	Range	No. of cases	Alpha
Full scale	80	41.38	16.44	0-95	8	.91
Romantic relationship	11	40.54	18.27	0-77	123	.78
Family	7	47.11	22.77	0-100	211	.81
Parenting	10	31.30	20.03	0-90	104	.82
Friendships	8	39.57	21.24	0-98	212	.79
Work	21	23.46	15.06	0-71	82	.87
Education	15	35.08	19.28	6-76	33	.88
Self-care	8	44.48	19.17	0-94	253	.73

The IPF subscales and IPF grand mean score all correlated significantly with a number of other self-report measures of impairment and quality of life, such as the Sheehan Disability Scale (SDS), World Health Organization Disability Assessment Schedule II (WHODAS-II), The Medical Outcomes Study Veterans RAND 36 Item Health Survey (VR-36), and Global Assessment of Functioning (GAF).

Specifically, scores on the social and interpersonal IPF subscales (i.e. Romantic Relationships, Family, Friendships & Socializing, Parenting) correlated significantly with associated subscales in other measures, with correlations ranging from  $r = .30$  to  $r = -.60$  (all  $ps < .05$ ) (i.e. VR-36- Social Functioning; WHODAS II- Getting along with people, Sheehan-Social and Family functioning). It had slightly lower, but still significant, associations with the GAF ( $r = .30$  to  $r = -.67$ , all  $ps < .05$ ).

Scores on the occupational and training IPF subscales (Work and Education) correlated significantly with other occupational subscales in other functioning measures, with correlations ranging from  $r = -.47$  to  $r = .70$  (all  $ps < .05$ ) (i.e. VR-36-Role Emotional; WHODAS- Work and School; Sheehan-Work and School functioning). The Work and Education subscales of the IPF correlated a bit less strongly with the GAF (Work  $r = -.29$ , Education  $r = -.43$ , both  $p < .05$ ).

Lastly, scores on the Self-care IPF subscale correlated significantly with several similar subscales in other measures (i.e.; VR-36 Role Emotional; WHODAS- Self-care, Life Activities; Sheehan-social life/leisure activities) with correlations ranging from  $r = .53$  to  $r = .64$  (all  $ps < .01$ ). The Self-care subscale of the IPF correlated at  $-.36$  ( $p < .01$ ) with the GAF.

The grand mean IPF score correlated significantly with the total scores of the WHODAS-II,  $r = .72, p < .001$ ; GAF,  $r = -.41, p < .01$ ; VR-36 Role Emotional score,  $r = -.60, p < .001$ .

### IPF and PTSD in Phase II:

The grand mean IPF score correlated significantly with PTSD symptom severity,  $r = .46, p < .001$ , assessed using the Clinician Administered PTSD Scale for DSM-IV (CAPS). Individuals meeting diagnostic criteria for PTSD had grand mean IPF scores of 45.77 ( $SD = 24.95$ ), whereas individuals not meeting diagnostic criteria for PTSD had significantly lower overall grand mean IPF scores ( $M = 29.07, SD = 20.64$ )  $t(273) = -6.48, p < .001$ . Subscale IPF scores were also associated in the expected direction with PTSD.

Table 4. Comparisons of IPF Scores between Veterans with PTSD and without PTSD, based on the CAPS-IV-TR, VA Boston Healthcare System, Phase II

IPF	PTSD			No PTSD			t	df	p
	N	Mean	SD	N	Mean	SD			
IPF Total	73	<b>45.77</b>	24.95	202	<b>29.07</b>	20.64	-6.48	273	.00**
Romantic	34	<b>46.26</b>	20.46	104	<b>38.66</b>	17.19	-2.13	136	.04*
Family	60	<b>58.66</b>	23.94	154	<b>42.60</b>	20.69	-4.88	212	.00**
Work	27	<b>38.27</b>	19.88	66	<b>25.99</b>	17.51	-2.95	91	.00**
Friendships	55	<b>50.83</b>	20.88	168	<b>35.88</b>	20.08	-4.74	221	.00**
Parenting	29	<b>39.90</b>	21.54	86	<b>28.39</b>	18.75	-2.75	113	.05*
Education	9	<b>44.51</b>	24.82	29	<b>32.16</b>	16.67	-1.39	36	.09
Self Care	71	<b>56.51</b>	18.23	198	<b>40.16</b>	17.64	-6.64	267	.00**

### IPF, Depression and Substance use disorders in Phase II:

The grand mean IPF score also correlated significantly,  $r = .52, p < .001$ , with Major Depression symptom severity, assessed using the module for Major Depressive Episode (current) from the M.I.N.I. International Neuropsychiatric Interview. Individuals meeting diagnostic criteria for Major Depressive Disorder had an IPF grand mean of 49.26 ( $SD = 15.76$ ), whereas individuals not meeting diagnostic criteria for Major Depressive Disorder had a significantly lower IPF grand mean ( $M = 34.42, SD = 13.64$ )  $t(271) = -8.34, p < .001$ .

Table 5. Comparisons of IPF Scores between Veterans with and without Major Depression, based on the M.I.N.I. Major Depressive Episode module, VA Boston Healthcare System, Phase II

IPF	Depression			No Depression			t	df	p
	N	Mean	SD	N	Mean	SD			
IPF Total	130	<b>49.26</b>	15.76	143	<b>34.42</b>	13.64	-8.34	271	.00**
Romantic	61	<b>47.54</b>	18.03	77	<b>34.99</b>	16.57	-4.29	136	.00**
Family	100	<b>54.65</b>	22.81	114	<b>40.49</b>	20.66	-4.76	212	.00**
Work	36	<b>26.91</b>	16.36	56	<b>21.28</b>	14.00	-1.76	90	.08
Friendships	94	<b>46.41</b>	21.27	127	<b>34.91</b>	19.77	-4.14	219	.00**
Parenting	50	<b>35.02</b>	21.79	65	<b>28.43</b>	18.23	-1.76	113	.08
Education	15	<b>42.71</b>	18.20	23	<b>30.11</b>	18.68	-2.05	36	.05*
Self Care	127	<b>53.82</b>	17.16	140	<b>36.11</b>	17.02	-8.46	265	.00**

The IPF correlated significantly with PTSD severity scores which were assessed using the Clinician Administered PTSD Scale for DSM-IV ( $r=.46$ ); depression severity scores assessed by a clinician using the Mini-International Neuropsychiatric Interview (M.I.N.I.): ( $r=.52$ ); and less strongly but still significantly, with self-reported measures of Alcohol severity ( $r=.17$ ) and drug use severity ( $r=.16$ ),

*Table 6. Correlations of overall Functional Impairment severity, measured using the IPF, with measures of PTSD, Depression, and Substance Abuse severity, VA Boston Healthcare System, Phase II*

<b>Data from Functional Impairment Study, Phase II</b>	
<b>Measure</b>	<b>IPF total score (0-100)</b>
PTSD severity (CAPS)	<b>.46**</b>
Depression severity (M.I.N.I.)	<b>.52**</b>
Alcohol disorder (AUDIT)	<b>.17*</b>
Alcohol and/or drug disorder (TICS)	<b>.16*</b>
<i>*p&lt;.01, **p&lt;.001</i>	

We also assessed exaggeration of psychological symptoms using the Miller Forensic Assessment of Symptoms Test (M-FAST) interview. Based on suggested cutoff scores in the M-FAST manual, we categorized individuals with a score equal to or greater than 8 on the M-FAST as potentially exaggerating psychological symptoms. We examined mean differences in the IPF subscales and grand mean between “non-exaggerators” and “potential exaggerators” and found that “potential exaggerators” reported significantly higher impairment in romantic relationships, self-care, and grand mean of the IPF. Notably, there were no differences between potential exaggerators and non-exaggerators on severity of work-related impairment. This may be due to the fact that we already removed some individuals who may have responded in a biased fashion on these measures. These findings also suggest that greater reported impairment in romantic relationship and self-care domains may be indicative of a greater likelihood of respondent exaggeration.

*Table 7. Comparisons Between potential exaggerators and non-exaggerators on IPF scores, VA Boston Healthcare System, Phase II*

<b>IPF SCORES BY MFAST</b>									
<b>IPF Domain Scores</b>	<b>Non-exaggerators</b>			<b>Potential exaggerators</b>			<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>			
IPF Grand mean	249	40.67	16.23	24	49.97	16.54	-2.68	271	<b>.008*</b>
Romantic rel.	124	39.48	13.97	14	49.95	18.80	-2.06	136	<b>.04*</b>
Family	195	46.60	22.84	19	52.32	21.98	-1.05	212	.30
Work	88	23.63	15.24	4	20.23	14.23	.44	90	.66
Friendship	204	39.47	20.58	17	43.75	27.62	-.80	219	.42
Parenting	108	31.52	19.33	7	27.83	25.00	.47	113	.64
Education	35	33.59	19.33	3	52.38	6.06	-1.66	36	.11
Self-care	244	43.40	18.99	23	56.62	17.81	-3.21	265	<b>.001**</b>

4. Phase III: Inventory Cross-Validation

Recruited participants for Phase III of project. Entered data from those who had completed the study.  
Finished recruitment and data collection for Phase III. Data entry.  
Preliminary examination of all of the collected data.

Phase III involved the collection of data from a second-stage test sample to support cross validation and criterion-related validity. Refined measures of the previously identified dimensions of PTSD-related functional impairment, along with measures of PTSD and other health outcomes were administered to another veteran sample. We collaborated with the VA Pacific Islands Healthcare System, and demographic information is presented in the tables below. During Phase III, researchers at Walter Reed Army Institute of Research (WRAIR) incorporated the Brief-IPF survey into their already existing WRAIR Land Combat study under an amendment at their institution (WRAIR) and under their protocol. Once their study was completed, they shared results of their analyses with our new instrument. Those data are presented in the section titled, “Brief-IPF”.

*Table 8. Demographics and Respondent Characteristics for the Validation Sample, VA Boston Healthcare System, Phase III*

<b>Functional Impairment Study Phase III- VA Boston Healthcare System</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	
Gender	$n=$ 214	%
Male	179	83.6
Female	34	15.9
Both Genders	1	0.5
Age Group	$n=$ 210	%
21-39	31	14.5
40-59	139	65
>60	40	18.7
Race	$n=$ 214	%
White (Non-Hispanic)	133	62.1
Black (Non-Hispanic)	58	27.1
American Indian	6	2.8
Alaska Native	1	0.5
Asian/Pacific Islander	3	1.4
Hispanic	15	7
Branch of Military	$n=$ 212	%
Army	121	56.5
Air Force	23	10.7
Navy	51	23.8
Marines	21	9.8
Other	8	3.7
Type of Duty	$n=$ 209	%
Active	155	72.4
Guard/Reserve	16	7.5
Both	38	17.8

Table 9. Demographics and Respondent Characteristics for the Validation Sample, VA Pacific Islands Healthcare System, Phase III

Functional Impairment Study Phase III- VA Pacific Islands Healthcare System		
VARIABLE	FREQUENCY	
Gender	$\underline{n}= 179$	%
Male	156	87.2
Female	21	11.7
Missing	2	1.1
Age Group	$\underline{n}= 179$	%
21-39	19	10.6
40-59	119	66.5
>60	41	22.9
Race	$\underline{n}= 179$	%
White (Non-Hispanic)	90	50.3
Black (Non-Hispanic)	39	21.8
American Indian	19	10.6
Alaska Native	0	0
Asian	30	16.8
Hispanic	15	8.4
Pacific Islander	32	17.9
Branch of Military	$\underline{n}= 177$	%
Army	91	50.8
Air Force	22	12.3
Navy	38	21.2
Marines	27	15.1
Other	6	3.4
Type of Duty	$\underline{n}= 174$	%
Active	141	78.8
Guard/Reserve	1	0.6
Both	32	17.9

### Data Analyses for Phase III

Of the 211 veterans who completed Phase III at VA Boston Healthcare System, 9 cases were excluded from psychometric analyses because a validity screen indicated these participants responded in a biased fashion (e.g., answered all 0s or all 6s to IPF items), and because the measure has reverse coded items, any respondent who answered all 0s or all 6s is likely to not have provided valid responses to the IPF's questions. Of the 179 veterans who completed Phase III at VA Pacific Islands Healthcare System, 14 cases were excluded for similar reasons.

Data from these participants showed that the 80 items of the IPF have strong internal consistency, with a Cronbach's alpha coefficient of .80. For each IPF subscale, Cronbach's alphas ranged from .75 to .94. Additionally, the corrected item-total correlations by subscale range from  $r=.11$  to  $r=.79$ . The means and standard deviations for each IPF subscale are presented below.

*Table 10. Scale Characteristics, VA Boston Healthcare System, Phase III*

IPF scale	No. of Items	Mean	SD	Range	No. of cases	Alpha
Full scale	80	41.11	17.94	0-80.74	6	0.80
Romantic relationship	11	39.97	21.66	0-86.36	80	0.83
Family	7	47.72	23.71	0-97.62	147	0.81
Parenting	10	32.93	22.97	0-75.00	73	0.87
Friendships	8	40.38	22.22	0-95.83	165	0.83
Work	21	23.61	16.21	0-63.49	65	0.89
Education	15	34.69	15.88	0-63.33	30	0.80
Self-care	8	42.18	20.80	0-93.75	190	0.84

*Table 11. Scale Characteristics, VA Pacific Islands Healthcare System, Phase III*

IPF scale	No. of Items	Mean	SD	Range	No. of cases	Alpha
Full scale	80	42.73	18.37	0-100	0	–
Romantic relationship	11	45.75	22.48	0-90.91	49	0.89
Family	7	48.09	20.29	0-100	98	0.75
Parenting	10	37.25	19.41	0-79.63	39	0.79
Friendships	8	42.86	22.00	0-93.75	115	0.82
Work	21	27.45	19.63	0-80.95	40	0.94
Education	15	34.65	21.83	0-87.78	24	0.92
Self-care	10	45.63	20.25	0-95.83	127	0.82

When examining the data by age groups, we found that within the Boston sample, there were significant differences in functioning in the Parenting scale (see Table 12 below). Individuals in the mid age group of 40-59 reported the greatest difficulty with parenting ( $M= 38.11$ ,  $SD=23.05$ ), whereas younger individuals, ages 21-39, reportedly significantly lower levels of difficulties in parenting ( $M= 12.42$ ,  $SD=13.71$ ). However, the youngest group's scores were so much lower, that this prompted us to take a closer look at their data to examine if there was any form of social desirability response bias. Social desirability theory suggests that individuals may

underreport symptoms to maintain a positive image (O'Leary, 2003), through self-deception and impression management (Sullivan & Scandell, 2003). In impression management, individuals deliberately attempt to manipulate their responses to create specific impressions to an audience (Sullivan & Scandell, 2003). In self-deception, which is thought to be an unconscious process, individuals believe that they have overly positive traits which they in fact do not possess (Sullivan & Scandell, 2003). We examined their scores on the *Balanced Inventory of Desirable Responding-7*, which assesses self-deception and impression management. We found that this subgroup of 11 youngest parents had higher scores on measures of self-deception ( $M=6.72$ ,  $SD=4.51$ ), and impression management ( $M=6.72$ ,  $SD=4.51$ ) compared with the overall mean of the entire sample (self-deception  $M= 3.98$ ,  $SD=3.69$ ; impression management  $M=6.93$ ,  $SD=3.93$ ). Veterans tending toward favorable self-presentations reported the lowest Parenting functional impairment. This suggests Veterans who reported lower Parenting functional impairment may possibly be underreporting their impairment because these are the same participants with elevated self-deception and impression management scores.

Table 12. Functional Impairment Scores by Age Groups, VA Boston Healthcare System, Phase III

IPF SCORES BY AGE GROUP												
IPF Domain Scores	21-39			40-59			60 and older					
	N	M	SD	N	M	SD	N	M	SD	F	df	p
IPF Grand Mean	31	40.00	17.33	131	42.92	17.82	38	35.58	18.30	2.58	199	0.08
Romance	20	43.71	22.07	44	40.65	21.86	19	34.45	20.79	0.94	82	0.40
Family	29	48.19	24.06	96	49.79	24.15	25	39.22	20.32	2.01	149	0.14
Work	13	27.23	11.46	42	25.50	16.97	13	14.41	15.94	3.00	67	0.06
Friendship	28	38.02	25.31	110	42.10	21.68	31	36.42	21.18	0.10	168	0.38
Parenting	11	12.42	13.71	44	37.74	22.91	19	32.33	21.48	6.11	73	<b>0.00**</b>
Education	12	31.87	18.22	16	38.19	15.38	4	29.17	8.18	0.81	31	0.46
Self-care	31	45.09	18.07	130	43.35	20.73	37	34.85	21.87	2.87	197	0.06

When examining the data by age groups in the Pacific Islands sample, we found no significant mean differences between the age groups. However, the oldest age group, those ages 60 and older, tended to report overall better functioning across all domains.

Table 13. Functional Impairment Scores by Age Groups, VA Pacific Islands Healthcare System, Phase III

IPF SCORES BY AGE GROUP												
IPF Domain Scores	21-39			40-59			60 and older					
	N	M	SD	N	M	SD	N	M	SD	F	df	p
IPF Grand Mean	17	48.49	16.07	105	43.70	18.65	37	37.33	17.68	2.63	158	0.08
Romance	5	45.15	39.03	39	48.27	20.38	17	40.14	21.87	0.77	60	0.47
Family	10	61.19	21.74	70	47.33	20.05	21	44.12	18.30	2.59	99	0.08
Work	6	34.10	21.88	34	26.70	21.09	13	26.35	14.94	0.38	52	0.67
Friendship	13	47.44	19.12	79	45.01	21.45	30	35.21	23.39	2.54	121	0.08
Parenting	5	37.17	16.62	30	38.62	19.45	17	34.86	20.88	0.20	49	0.82
Education	6	43.31	26.13	18	29.44	20.19	8	39.87	21.63	1.23	29	0.31
Self-care	15	52.22	17.86	90	45.70	20.33	36	42.70	20.82	1.18	140	0.31

In regards to differences between men and women in the Boston sample (see Table 14 below), we found that women reported significantly greater difficulties with attending to activities of self-care and leisure, such as managing their medical care and participating in activities that were fun or relaxing.

Table 14. Functional Impairment Score Comparisons between Men and Women, VA Boston Healthcare System, Phase III

IPF SCORES BY GENDER									
IPF Domain Scores	Men			Women					
	N	M	SD	N	M	SD	T	df	p
IPF Grand mean	169	<b>40.38</b>	17.88	31	<b>44.60</b>	18.23	-1.20	198	0.23
Romance	71	<b>40.26</b>	21.44	12	<b>38.27</b>	23.86	0.29	81	0.77
Family	125	<b>46.27</b>	23.21	24	<b>54.38</b>	25.69	-1.54	147	0.13
Work	51	<b>22.69</b>	17.32	17	<b>25.34</b>	12.41	-0.58	66	0.56
Friendship	141	<b>39.58</b>	21.97	27	<b>43.97</b>	23.78	-0.94	166	0.35
Parenting	65	<b>33.60</b>	23.04	10	<b>28.59</b>	23.22	0.64	73	0.53
Education	26	<b>32.36</b>	14.90	6	<b>44.81</b>	17.37	-1.79	30	0.08
Self-care	167	<b>40.67</b>	19.76	31	<b>49.65</b>	24.72	-2.23	196	<b>0.03*</b>

In the Pacific Islands sample (see Table 15 below), we found that women reported significantly greater difficulties with family relationships, which refers to relationships with their parents, siblings, and extended relatives.

Table 15. Functional Impairment Score Comparisons between Men and Women, VA Pacific Islands Healthcare System, Phase III

IPF SCORES BY GENDER									
IPF Domain Scores	Men			Women					
	N	M	SD	N	M	SD	T	df	p
IPF Grand Mean	137	<b>41.46</b>	18.40	20	<b>49.42</b>	16.45	-1.83	155	0.07
Romance	51	<b>44.40</b>	22.91	8	<b>50.63</b>	21.78	-0.72	57	0.48
Family	88	<b>46.34</b>	19.85	12	<b>60.91</b>	19.57	-2.39	98	0.02*
Work	48	<b>27.77</b>	20.20	5	<b>24.42</b>	14.27	0.36	51	0.72
Friendship	107	<b>42.19</b>	22.39	14	<b>46.58</b>	19.17	-0.70	119	0.49
Parenting	44	<b>36.70</b>	20.36	7	<b>39.13</b>	14.30	-0.30	49	0.76
Education	28	<b>34.52</b>	22.81	4	<b>35.50</b>	15.49	-0.08	30	0.94
Self-care	121	<b>44.26</b>	19.88	18	<b>52.74</b>	21.26	-1.68	137	0.10

Tables 16 through 19 present the correlations between scores on the IPF and scores on relevant subscales from other measures of functional impairment, from data at VA Boston. All of the correlation coefficients displayed in Tables 16 through 19 were statistically significant, in the range of  $r=.35$  to  $r=.62$  for subscale scores and all of the relationships were in the expected direction. The IPF grand mean correlated strongly with the WHODAS total score,  $r=.72$ ,  $p<.001$ .



Table 16. Correlations of IPF scores with the WHODAS, and SF-36V, VA Boston Healthcare System, Phase III

IPF	WHODAS						VR-36		
	N	Total	Getting along with people	Work & School	Life Activities	Participation in society	N	Social Functioning	Role Emotional
<b>IPF Total</b>	199	.72**	—	—	—	—	199	-0.62**	-.59**
<b>Romantic</b>	83	—	.54**	—	—	—	83	-0.45**	—
<b>Family</b>	150	—	.57**	—	—	—	150	-0.53**	—
<b>Work</b>	68	—	—	.49**	—	—	68	—	-0.55**
<b>Friendships</b>	167	—	.62**	—	—	—	167	-0.51**	—
<b>Parenting</b>	74	—	.48**	—	—	—	n/a	—	—
<b>Education</b>	31	—	—	.63*	—	—	31	—	-0.49*
<b>Self Care</b>	197	—	—	—	.62**	.65**	197	—	-0.56**

Table 17. Correlations of IPF scores with the Sheehan Disability Scale, VA Boston Healthcare System, Phase III

Sheehan Disability Scales				
IPF	N	Work/School	Social/Leisure	Family/home
<b>IPF Total</b>	—	—	—	—
<b>Romantic</b>	83	—	—	0.36*
<b>Family</b>	150	—	—	0.51**
<b>Work</b>	68	.54**	—	—
<b>Friendships</b>	167	—	0.48**	—
<b>Parenting</b>	74	—	—	0.40**
<b>Education</b>	31	.41*	—	—
<b>Self Care</b>	197	—	—	0.60**

Table 18. Correlations of IPF scores with QOLI, VA Boston Healthcare System, Phase III

IPF	QOLI								
	N	Total	Love	Relatives	Work	Friends	Children	Learning	Play
<b>IPF Total</b>	198	0.61**	—	—	—	—	—	—	—
<b>Romantic</b>	83	—	0.48**	—	—	—	—	—	—
<b>Family</b>	149	—	—	-0.52**	—	—	—	—	—
<b>Work</b>	67	—	—	—	0.35*	—	—	—	—
<b>Friendships</b>	166	—	—	—	—	-0.45**	—	—	—
<b>Parenting</b>	73	—	—	—	—	—	-0.48**	—	—
<b>Education</b>	31	—	—	—	—	—	—	-0.61**	—
<b>Self Care</b>	196	—	—	—	—	—	—	—	0.37**

Table 19. Correlations Between IPF scores and WRAIR's measure of functional impairment Question 1, VA Boston Healthcare System, Phase III

IPF	Walter Reed Army Research Institute Functional Impairment measure		
	N	Questions 1a-1g (difficulties in social functioning, and personal responsibilities)	Questions 2a-2g (difficulties with work)
<b>IPF Total</b>	196	.72**	-
<b>Romantic</b>	82	.56**	-
<b>Family</b>	148	.58**	-
<b>Work</b>	67	.63**	.50**
<b>Friendships</b>	164	.58**	-
<b>Parenting</b>	74	.49**	-
<b>Education</b>	30	.40*	-
<b>Self Care</b>	195	.73**	-

Tables 20 through 23 present the correlations between scores on the IPF and scores on relevant subscales from other measures of functional impairment from data collected at the VA Pacific Islands. Similarly to Boston, all of the correlation coefficients were statistically significant, in the range of  $r=.30$  to  $r=.71$  for subscale scores and all of the relationships were in the expected direction. Also, as with the Boston samples, the IPF grand mean correlated strongly with the WHODAS total score,  $r=.70$ ,  $p<.001$ .

Table 20. Correlations of IPF scores with the WHODAS, and VR-36, VA Pacific Islands Healthcare System, Phase III

IPF	N	WHODAS					VR-36		
		Total	Getting along with people	Work & School	Life Activities	Participation in society	N	Social Functioning	Role Emotional
<b>IPF Total</b>	159	.70**	-	-	-	-	159	-0.65**	-0.64**
<b>Romantic</b>	61	-	.65**	-	-	-	61	-0.67**	-
<b>Family</b>	100	-	.60**	-	-	-	100	-0.41**	-
<b>Work</b>	53	-	-	.71**	-	-	53	-	-0.59**
<b>Friendships</b>	122	-	.62**	-	-	-	122	-0.52**	-
<b>Parenting</b>	52	-	.62**	-	-	-	n/a	-	-
<b>Education</b>	32	-	-	.63*	-	-	32	-	-0.66**
<b>Self Care</b>	141	-	-	-	.67**	.66**	141	-	-0.65**

Table 21. Correlations of IPF scores with the Sheehan Disability Scale, VA Pacific Islands Healthcare System, Phase III

Sheehan Disability Scales				
IPF	N	Work/School	Social/Leisure	Family/home
<b>IPF Total</b>	–	–	–	–
<b>Romantic</b>	61	–	–	0.68**
<b>Family</b>	100	–	–	0.46**
<b>Work</b>	53	.59**	–	–
<b>Friendships</b>	122	–	0.48**	–
<b>Parenting</b>	52	–	–	0.54**
<b>Education</b>	32	.50*	–	–
<b>Self Care</b>	141	–	–	0.71**

Table 22. Correlations of IPF scores with the QOLI, VA Pacific Islands Healthcare System, Phase III

IPF	N	QOLI							
		Total	Love	Relatives	Work	Friends	Children	Learning	Play
<b>IPF Total</b>	159	0.60**	–	–	–	–	–	–	–
<b>Romantic</b>	61	–	0.66**	–	–	–	–	–	–
<b>Family</b>	100	–	–	-0.56**	–	–	–	–	–
<b>Work</b>	53	–	–	–	0.30*	–	–	–	–
<b>Friendships</b>	122	–	–	–	–	0.60**	–	–	–
<b>Parenting</b>	52	–	–	–	–	–	-0.44*	–	–
<b>Education</b>	32	–	–	–	–	–	–	-0.56*	–
<b>Self Care</b>	141	–	–	–	–	–	–	–	0.41**

Table 23. Correlations Between IPF scores and WRAIR's measure of functional impairment Question 1, VA Pacific Islands Healthcare System, Phase III

IPF	N	Walter Reed Army Research Institute Functional Impairment measure	
		Questions 1a-1g (difficulties in social functioning, and personal responsibilities)	Questions 2a-2g (difficulties with work)
<b>IPF Total</b>	139	.69**	–
<b>Romantic</b>	54	.71**	–
<b>Family</b>	89	.48**	–
<b>Work</b>	45	.62**	.77**
<b>Friendships</b>	108	.56**	–
<b>Parenting</b>	48	.53**	–
<b>Education</b>	26	.67**	–
<b>Self Care</b>	122	.72**	–

At the Boston site, we administered an interview of suicide ideation severity using the M.I.N.I. Suicide Module and found that greater difficulties at work was associated with greater suicide ideation ( $r = .45, p < .04$ ). However, these findings are correlational, and we have not tested the directionality of this relationship yet.

Additionally, these findings should be interpreted with caution as it is a relatively small sample size (n=22) of participants who had been working in the past month and endorsed at least one item in a suicide pre-screen measure (Beck Scale for Suicide Ideation) given to all participants consented in the study.

Table 24. Correlations between IPF scores and Suicide Ideation risk, VA Boston Healthcare System, Phase III

	n	Suicide Risk Score	p
total IPF Score	92	.22*	.03*
IPF Romantic Relationship	31	.25	.17
IPF Family	66	.16	.19
IPF Work	22	.45*	.04*
IPF Friendship	72	.23	.06
IPF Parenting	30	.19	.31
IPF Education	17	.22	.40
IPF Selfcare	91	.20	.06

We also examined the relationship between the IPF and several indices of psychopathology using the Patient Health Questionnaire- Full (PHQ). From the Boston data, we found strong and significant correlations between all of the IPF subscales and grand mean with Depression severity ( $r=.50$  to  $r=.64$ , all  $ps>.001$ ). There was a similar trend with somatization severity, ( $r=.31$  to  $r=.50$ , all  $ps>.001$ ), with the exception that the Education scale was not significantly associated with Somatization severity. It is also interesting to highlight that Alcohol severity was significantly associated with only Education scale scores ( $r=.50$   $p<.05$ ). Further analyses examining a potential influence of response bias on the association reported in functional impairment and alcohol severity may provide better clarification for these seemingly low associations.

Table 25. Correlations of IPF subscales with PHQ Subscales Severity Scores, VA Boston Healthcare System, Phase III

	Somatization	Depression	Panic	Other Anxiety	Bulimia	Alcohol
total IPF Score	<b>.48**</b>	<b>.64**</b>	<b>.38**</b>	-.06	<b>.36**</b>	.07
IPF Romantic Relationship	<b>.36**</b>	<b>.53**</b>	.22	<b>.31**</b>	<b>.23*</b>	-.01
IPF Family	<b>.33**</b>	<b>.52**</b>	<b>.34**</b>	-.11	<b>.27**</b>	.03
IPF Work	<b>.45**</b>	<b>.50**</b>	.16	<b>.43**</b>	<b>.39**</b>	.08
IPF Friendship	<b>.40**</b>	<b>.52**</b>	<b>.35**</b>	-.04	<b>.33**</b>	-.02
IPF Parenting	<b>.31**</b>	<b>.52**</b>	<b>.27*</b>	<b>.36**</b>	<b>.36**</b>	.10
IPF Education	.31	<b>.55**</b>	.24	-.16	.36	<b>.50*</b>
IPF Selfcare	<b>.50**</b>	<b>.64**</b>	<b>.33**</b>	-.04	<b>.27**</b>	.06

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

From the Pacific Islands sample, we again found significant, and even stronger, correlations between all of the IPF subscales and grand mean with Depression severity ( $r=.51$  to  $r=.71$ , all  $ps>.001$ ). There was a similar trend with somatization severity, ( $r=.30$  to  $r=.63$ , all  $ps>.001$ ). Alcohol severity was significantly associated with the IPF grand mean ( $r=.23$ ) and impairment in friendships and socializing( $r=.26$ ) (all  $ps>.05$ ). The IPF subscales and grand mean also correlated strongly and in the expected direction with Panic and Other Anxiety disorders.

Table 26. Correlations of IPF subscales with PHQ Subscales Severity Scores, VA Pacific Islands Healthcare System, Phase III

	Somatization	Depression	Panic	Other Anxiety	Bulimia	Alcohol
total IPF Score	<b>.47**</b>	<b>.74**</b>	<b>.55**</b>	<b>.63**</b>	<b>.28**</b>	<b>.23*</b>
IPF Romantic Relationship	<b>.40**</b>	<b>.67**</b>	<b>.40*</b>	<b>.37*</b>	.18	.09
IPF Family	<b>.30**</b>	<b>.51**</b>	<b>.51**</b>	<b>.57**</b>	<b>.25*</b>	.10
IPF Work	<b>.63**</b>	<b>.75**</b>	<b>.56*</b>	<b>.71**</b>	<b>.35*</b>	.16
IPF Friendship	<b>.37**</b>	<b>.66**</b>	<b>.46**</b>	<b>.71**</b>	<b>.22*</b>	<b>.26*</b>
IPF Parenting	<b>.44**</b>	<b>.62**</b>	.24	<b>.61**</b>	.04	.09
IPF Education	<b>.50**</b>	<b>.67**</b>	<b>.81**</b>	<b>.75**</b>	.15	.39
IPF Self care	<b>.48**</b>	<b>.71**</b>	<b>.46**</b>	<b>.55**</b>	<b>.25**</b>	.15

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Lastly, we also examined the relationship between Nicotine dependence and functional impairment. We found that, within the Boston sample, there were no significant associations, although, nicotine dependence approached significance with worse self-care ( $r = .19, p = .054$ ), whereas in the Pacific Islands sample, nicotine dependence was significantly associated with worse self-care ( $r = .25, p = .048$ ) and with worse overall total functioning (IPF grand mean,  $r = .25, p = .032$ ).

We assessed potential Traumatic Brain Injury (TBI) with a self-report measure. Individuals were considered to have screened positive for potential TBI if they reported at least one head injury that involved blast or explosion, vehicular accident, fragment wound or bullet wound above the shoulders, fall or other event (for example, a sports injury to the head) AND there was altered mental state immediately following the injury, loss of consciousness, or inability to recall the event immediately following the injury. Results are presented in Tables 27 and 28. In the Boston sample, we found significant differences in functioning in friendships and socializing, self-care (which includes items relating to managing finances, managing house chores, medical care, as well as leisure activities), and overall IPF grand mean, with individuals with potential TBI exhibiting greater impairment.

Table 27. Comparisons of Functional Impairment by Probable TBI exposure if individuals reported at least one head injury (or blast) with either altered mental state immediately following the injury, loss of consciousness, or inability to recall the event immediately following the injury, VA Boston Healthcare System, Phase III

IPF SCORES BY Potential TBI EXPOSURE									
IPF Domain Scores	NO TBI			YES TBI			<i>t</i>	df	<i>p</i>
	N	M	SD	N	M	SD			
IPF Grand mean	98	<b>39.96</b>	18.78	101	<b>43.66</b>	16397	-2.03	197	<b>.04*</b>
Romantic relationship	40	<b>39.36</b>	22.94	43	<b>40.53</b>	20.66	-.24	81	.81
Family	75	<b>46.40</b>	24.72	75	<b>49.05</b>	22.73	-.68	148	.49
Work	38	<b>20.81</b>	17.01	30	<b>26.59</b>	14.52	-1.48	66	.14
Friendship	84	<b>36.35</b>	22.48	83	<b>44.41</b>	21.38	-2.37	165	<b>.02*</b>
Parenting	36	<b>34.16</b>	22.41	38	<b>32.06</b>	23.97	.39	72	.70
Education	10	<b>35.47</b>	17.61	21	<b>34.29</b>	15.82	.19	29	.85
Self-care	97	<b>37.98</b>	21.00	100	<b>46.14</b>	19.96	-2.80	195	<b>.00**</b>

In the Pacific Islands sample, we found that individuals with potential TBI had greater impairments in family functioning (with parents, siblings, relatives, etc), work, friendships and socializing, education, self-care and overall IPF grand mean.

Table 28. Comparisons of Functional Impairment by Probable TBI exposure if individuals reported at least one head injury (or blast) with either altered mental state immediately following the injury, loss of consciousness, or inability to recall the event immediately following the injury, VA Pacific Islands Healthcare System, Phase III

IPF SCORES BY Potential TBI EXPOSURE									
IPF Domain Scores	NO TBI			YES TBI					
	N	M	SD	N	M	SD	t	df	p
IPF Grand mean	91	<b>41.00</b>	14.60	68	<b>50.36</b>	15.86	-3.85	157	<b>.00**</b>
Romantic relationship	29	<b>46.46</b>	22.04	32	<b>53.78</b>	18.35	-1.41	59	.16
Family	57	<b>42.75</b>	17.46	43	<b>50.29</b>	17.77	-2.12	98	<b>.03*</b>
Work	25	<b>32.14</b>	15.15	28	<b>42.95</b>	18.76	-2.32	51	<b>.03*</b>
Friendship	66	<b>36.01</b>	16.93	56	<b>50.82</b>	16.37	-4.89	120	<b>.00**</b>
Parenting	28	<b>42.80</b>	18.13	24	<b>47.39</b>	17.64	-.92	50	.36
Education	16	<b>35.44</b>	12.97	16	<b>50.14</b>	18.53	-2.60	30	<b>.01*</b>
Self-care	83	<b>43.12</b>	16.63	58	<b>51.24</b>	17.10	-2.82	139	<b>.00**</b>

In Phase III, we also examined the relationship between malingering and functional impairment. We found that malingering scores were associated in the expected direction (higher malingering scores were associated with higher impairment scores) for all of the IPF subscales, with correlations ranging from .28 (family) to .55 (education).

Table 29. Correlations between IPF scores and scores on malingering symptomatology, VA Boston and Pacific Islands Healthcare Systems, Phase III

	Structured Inventory of Malingered Symptomatology
IPF total score	.44**
Romantic	.39**
Family	.28**
Work	.48**
Friendships	.36**
Parenting	.30**
Education	.55**
Self Care	.39**

We also examined the associations among self-deception and impression management and functional impairment using the *Balanced Inventory of Desirable Responding-7*, which assesses self-deception (SD) and impression management (IM). In our sample, Veterans tending toward favorable self-presentations reported the lowest PTSD severity, Depression severity, and functional impairment.

Table 30. Veterans tending toward favorable self-presentations reported lower functional impairment, VA Boston and Pacific Islands Healthcare Systems, Phase III

	Paulhus Deception Scales		
	Self-Deception	Impression Management	Total
IPF total score	-.36**	-.33**	-.40**
Romantic	-.24**	-.19*	-.26**
Family	-.29**	-.28**	-.33**
Work	-.34**	-.33**	-.42**
Friendships	-.29**	-.30**	-.35**
Parenting	-.45**	-.39**	-.48**
Education	-0.25	-.33*	-.34**
Self Care	-.33**	-.28**	-.36**

Previous research and findings from this project consistently show PTSD to be associated with functional impairment across social, occupational, and educational domains within the veteran population. This prevalence suggests the importance of analyzing other components that may also be associated with functional impairment for veterans both with and without PTSD. We used the Multidimensional Personality Questionnaire-Brief to examine how aspects of personality, particularly negative emotionality (NE), which encompasses stress reaction, alienation, and aggression, and PTSD severity, relate to psychosocial functioning. We focused our analysis on the Boston data. Analysis using multiple regression showed that PTSD severity and NE significantly contributed to the degree of functional impairment ( $R^2 = .482$ ). Specifically, PTSD severity accounted for a stronger effect on functional impairment ( $R^2 = .471$ ), yet NE was also a significant contributing factor alone ( $R^2 = .226$ ) ( $p < .001$ ). Interestingly, in participants without a diagnosis of PTSD, NE had a smaller, yet significant effect on functional impairment ( $R^2 = .125$ ) ( $p < .001$ ). These findings suggest that veterans with higher NE appear to be more vulnerable to overall functional impairment, even without PTSD diagnosis, and also suggest that clinical interventions targeting stress reaction, alienation, and aggression may be helpful in improving veterans' psychosocial functioning.

In our study, we also included another measure of personality characteristics, the Psychopathic Personality Inventory (PPI-short form). Psychopathy has been conceptualized as “a personality disorder characterized by a callous, manipulative nature often found in conjunction with superficial interpersonal relationships and a relative lack of mental distress” (Smith, Edens, & Vaughn 2011). The PPI assesses 8 subscales that assess different aspects of psychopathy. In the Boston data, we found that our measure of functional impairment had positive and significant correlations with the Carefree nonplanfulness scale of the PPI, which assesses an attitude of indifference in planning one's actions (Sandoval et al., 2000); however, an examination of the content of the items in the Carefree nonplanfulness subscale could be understood from a PTSD perspective as items that assess behaviors consistent with difficulties with concentration, loss of interest, and recklessness/impulsivity. Several of the IPF subscales also correlated positively with the Blame Externalization scale, which assesses a tendency to blame others for one's problems and to rationalize one's misbehavior. We also found significant, inverse correlations between all of the IPF subscales and the Social potency scale, which assesses one's perceived ability to influence and manipulate others and the Stress Immunity scale, which assesses an absence of marked reactions to anxiety-provoking events.

Table 31. Correlations of IPF scores with the MPQ, VA Boston Healthcare System, Phase III

IPF	N	PPI							
		Machi- velian	Social Potency	Coldhearted -ness	Carefree Nonplanful- ness	Fearless -ness	Blame Externali- zation	Impulsive Non- conformit- y	Stress Immunity
<b>IPF Total</b>	195	<b>0.25*</b>	<b>-0.40**</b>	0.03	<b>0.37**</b>	0.00	<b>0.37**</b>	<b>0.22*</b>	<b>-0.42**</b>
<b>Romantic</b>	83	<b>0.27*</b>	<b>-0.45**</b>	<b>0.23*</b>	<b>0.22*</b>	0.02	<b>0.25*</b>	0.07	<b>-0.31*</b>
<b>Family</b>	148	<b>0.12*</b>	<b>-0.35**</b>	0.05	<b>0.32**</b>	0.04	<b>0.29**</b>	0.14	<b>-0.34**</b>
<b>Work</b>	68	<b>0.38*</b>	<b>-0.26*</b>	0.16	<b>0.54**</b>	0.13	0.23	0.19	<b>-0.28*</b>
<b>Friendships</b>	163	<b>0.22*</b>	<b>-0.36**</b>	0.09	<b>0.26*</b>	0.02	<b>0.36**</b>	<b>0.19*</b>	<b>-0.39**</b>
<b>Parenting</b>	74	0.12	<b>-0.48**</b>	-0.03	<b>0.45**</b>	-0.04	<b>0.25*</b>	0.14	<b>-0.37*</b>
<b>Education</b>	30	-0.01	<b>-0.46*</b>	-0.32	<b>0.47*</b>	-0.15	0.08	-0.16	<b>-0.39*</b>
<b>Self Care</b>	194	<b>0.21*</b>	<b>-0.26**</b>	-0.01	<b>0.30**</b>	-0.02	<b>0.30**</b>	0.22*	<b>-0.36**</b>

In the Pacific Islands sample, we found that similar patterns emerged as with the Boston data. The IPF had positive and significant correlations with the Carefree nonplanfulness scale; several of the IPF subscales also correlated positively with the Blame Externalization scale. We also found significant, inverse correlations between all of the IPF subscales and the Stress Immunity scale, and almost all of the IPF subscales (with the exception of education) correlated inversely with the Social Potency scale.

Table 32. Correlations of IPF scores with the PPI, VA Pacific Islands Healthcare System, Phase III

IPF	N	PPI							
		Machi- velian	Social Potency	Coldhearted -ness	Carefree Nonplanful- ness	Fearless -ness	Blame Externali- zation	Impulsive Non- conformit- y	Stress Immunity
<b>IPF Total</b>	145	<b>0.31**</b>	<b>-0.46**</b>	0.10	<b>0.38**</b>	0.01	<b>0.40**</b>	0.14	<b>-0.54**</b>
<b>Romantic</b>	56	<b>0.32*</b>	<b>-0.43*</b>	0.16	<b>0.54**</b>	-0.12	<b>0.45**</b>	0.13	<b>-0.64**</b>
<b>Family</b>	92	<b>0.35*</b>	<b>-0.45**</b>	0.03	<b>0.26*</b>	-0.04	<b>0.46**</b>	0.08	<b>-0.49**</b>
<b>Work</b>	47	<b>0.45*</b>	<b>-0.45*</b>	-0.13	<b>0.42*</b>	-0.10	<b>0.32*</b>	0.12	<b>-0.65**</b>
<b>Friendships</b>	113	<b>0.27*</b>	<b>-0.49**</b>	0.11	<b>0.33**</b>	0.03	<b>0.35**</b>	0.14	<b>-0.50**</b>
<b>Parenting</b>	48	<b>0.41*</b>	<b>-0.52**</b>	-0.01	<b>0.30*</b>	-0.08	0.20	0.27	<b>-0.56**</b>
<b>Education</b>	28	0.26	-0.24	0.04	<b>0.39*</b>	-0.01	0.26	0.20	<b>-0.55*</b>
<b>Self Care</b>	128	0.12	<b>-0.30*</b>	0.05	<b>0.33**</b>	-0.03	<b>0.34**</b>	0.10	<b>-0.43**</b>

Test-retest reliability: We assessed for test-retest reliability based on a sample of veterans who returned to the clinic within 30 days after their initial visit. Results are presented in Table 33.

Table 33. Test-retest reliability of the IPF, within a 30 day period, VA Boston Healthcare System, Phase III (N = 51.)

Time 1	Time 2							
	IPF Total	Romantic	Family	Work	Friendships	Parenting	Education	Self Care
<b>IPF Total</b>	<b>.86**</b>	—	—	—	—	—	—	—
<b>Romantic</b>	—	<b>.75**</b>	—	—	—	—	—	—
<b>Family</b>	—	—	<b>.66**</b>	—	—	—	—	—
<b>Work</b>	—	—	—	<b>.82**</b>	—	—	—	—
<b>Friendships</b>	—	—	—	—	<b>.70**</b>	—	—	—
<b>Parenting</b>	—	—	—	—	—	<b>.93**</b>	—	—
<b>Education</b>	—	—	—	—	—	—	.37	—
<b>Self Care</b>	—	—	—	—	—	—	—	<b>.79**</b>



Brief IPF:

Since combat operations began in Iraq in 2003, the Department of Military Psychiatry at the Walter Reed Army Institute of Research (WRAIR) has extensively studied the impact of military operations in Iraq (Operation Iraqi Freedom; OIF) and Afghanistan (Operation Enduring Freedom; OEF) on the health and wellbeing of soldiers and family members. This study is known as the Walter Reed Army Institute of Research (WRAIR) Land Combat Study. This study involves both cross-sectional and longitudinal design methods using anonymous surveys administered with informed consent under an approved research protocol. The study has focused on combat operational units, and over 25,000 surveys have been collected to date. Soldiers from multiple brigade combat teams, both Active Component and National Guard, as well as members of Marine Expeditionary Forces deploying to OIF and OEF have been surveyed before deployment, and / or after returning from deployment. Post-deployment assessments have been conducted at 3-4 months, 6 months, and 12 months after returning from deployment. The surveys include questions about deployment stressors, combat experiences, and unit climate variables such as cohesion and morale. Depression, anxiety, and PTSD are measured using validated self-administered checklists, including the PTSD checklist developed by the National Center for PTSD and the Patient Health Questionnaire. Other outcomes include alcohol use, aggression, and family functioning. The survey data are augmented with analyses of data from other sources, including the Department of Defense Post-deployment Health Assessment, administered to all service members as they return from deployment, and the Defense Medical Surveillance System, which includes electronic records of all health care visits among service members. WRAIR Land Combat Study team members received approvals for us to include the 7 item B-IPF in their survey packet. Once their study was completed, they shared the de-identified data of our survey from active duty participants that enrolled in their study. Those data are presented in Tables 34 and 35.

*Table 34. Average Brief-IPF Summed Scores by PTSD Caseness, Depression and Combat Exposure, Active Duty*

n=2182 (Iraq/Afghanistan deployers only)	Mean	Median	Mode	SD
All deployers (range = 2 through 49)(n=2140)	12.23	9	7	7.54
PTSD Caseness				
Did not screen positive for PTSD (n=1969)	11.36	8	7	6.46
Screened positive for PTSD (n=164)	22.73	23	7	11.01
Major Depression Caseness				
Did not screen positive for MDD (n=1965)	11.17	8	7	6.21
Screened positive for MDD (n=173)	24.31	24	19*	10.37
Combat Exposure				
No combat exposure (n=518)	10.91	7	7	6.70
Low combat exposure (1 or two experiences)(n=609)	11.50	8	7	6.77
Medium combat exposure (3-5 experiences)(n=520)	12.44	9.5	7	7.38
High combat exposure (6 or more experiences)(n=491)	14.31	11	7	8.92

\*Note: Multiple modes exist. Other modes are 25 and 31.

N=2,801 for entire sample

Table 35. Frequency Distributions of Brief-IPF items, Active Duty

	% Not at all		% Some-what			% Very Much		n/a	Mean	SD
	1	2	3	4	5	6	7			
n = 2182 (Iraq/Afghanistan deployers only)										
I had trouble taking care of myself (keeping up with household chores, managing medical care, being physically active, doing activities or hobbies that were or relaxing). (n=2148)	65.1	10	8.8	7.8	3.2	2.9	1.5	0.7	1.9	1.5
I had trouble in my romantic relationships with my spouse or partner. (n=2142)	53.5	9.6	9.5	7.3	3.6	4.4	6.7	5.4	2.4	1.9
I had trouble with my family relationships. (n=2145)	62.8	12.1	8	7.2	3.3	2.7	3	1	1.9	1.6
I had trouble at work. (n=2145)	65.5	13.3	8	5.3	2.8	1.4	2.8	0.8	1.8	1.5
I had trouble with my friendships and socializing. (n=2141)	66.8	13.8	6.9	5.6	2.8	1.4	1.9	0.8	1.7	1.4
I had trouble in my relationship with my children. (n=2119)	59.8	6.6	4.4	2.7	1.2	1.1	1.7	22.6	1.6	1.3
I had trouble with training or school. (n=2140)	72.7	9.3	4.8	3.6	2.1	1	1.4	5	1.6	1.2

Table 36. Bivariate Correlations of the Brief IPF with other measures of Psychosocial Impairment and Psychological Symptoms within Veteran samples, VA Boston and VA Pacific Islands Healthcare Systems, Phase III

	WHODAS total	VR-36 Role Emotional	Sheehan work/school	Sheehan Social	Sheehan Family	PTSD severity (PCL)	Depression Severity (PHQ)	WRAIR's measure of Functional Impairment Q. 1	Suicide risk severity (MINI suicide)
B-IPF Phase III Boston	.72**	-.55**	.63**	-.60**	.59**	.61**	.59**	.72**	.22*
B-IPF Phase III Pacific Islands	.65**	-.61**	.57**	.62**	.63**	.67**	.65**	.71**	n/a

Table 37. Correlations of B-IPF with Measures of Symptom Severity, Active Duty

	Entire Sample (n=2801)	OEF/OIF Deployed (n=2170)	Other Deployed/Never Deployed (n=594)
<i>Correlations with B-IPF Mean</i>			
PCL sum score	0.58**	0.57**	0.63**
PHQ sum score	0.64**	0.62**	0.70**
GAD-7 sum score	0.63**	0.61**	0.68**
Combat exposure sum score	0.16**	0.16**	0.03
PHQ-15	0.57**	0.57**	0.64**
Marital functioning mean score			
<i>T-tests of Functional Impairment Mean</i>			
PTSD = 0	1.69	1.69	1.65
PTSD = 1	3.41***	3.28***	3.84***
Depression = 0	1.69	1.70	1.66
Depression = 1	3.95***	3.82***	4.30***
Anxiety = 0	1.64	1.66	1.58
Anxiety = 1	3.45***	3.34***	3.77***

\*\*p < .01

\*\*\*p < .001

Suggested Cutoff Scores for the 80-item IPF Total Score:

With guidance from Dr. Frank Weathers, we followed a rationally derived approach to select cutoff scores to indicate severity of functional impairment on the full scale version of the IPF. Based on examination of frequency distributions of the IPF grand mean across each of the samples, we tested the validity of the following range: IPF grand means in the 0-10 range, no impairment; 11-30, mild impairment; 31-50, moderate impairment; 51-80, severe impairment; 81-100, extreme impairment. Table 38 presents the distribution of participants in each of the samples based on these cutoff scores. Figures 1 through 5 present the mean severity scores of PTSD and depression within each category of impairment from data collected in Phases II and III.

Table 38. Suggested cutoff scores for the IPF grand mean

IPF Total Score (range 0 - 100)	Level of Impairment	Percentage of Participants		
		Phase II	Phase III Boston	Phase III Pacific Islands
0-10	No Impairment	2.7%	5.3%	2.7%
11-30	Mild Impairment	25.0%	22.1%	24.3%
31-50	Moderate Impairment	42.3%	41.1%	35.8%
51-80	Severe Impairment	28.8%	31.6%	35.1%
81-100	Extreme Impairment	1.2%	0.0%	2.0%

Figure 1. PTSD severity scores by IPF impairment distribution. PTSD was assessed using the CAPS interview, VA Boston Healthcare System, Phase II

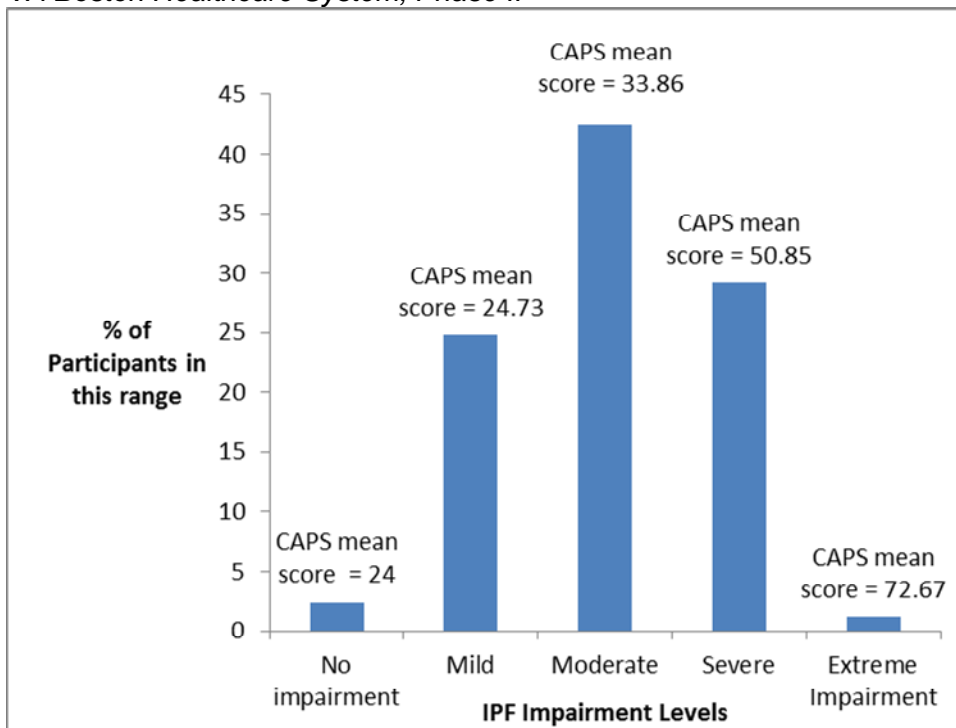


Figure 2. PTSD severity scores by IPF impairment distribution. PTSD was assessed using the PCL, VA Boston Healthcare System, Phase III

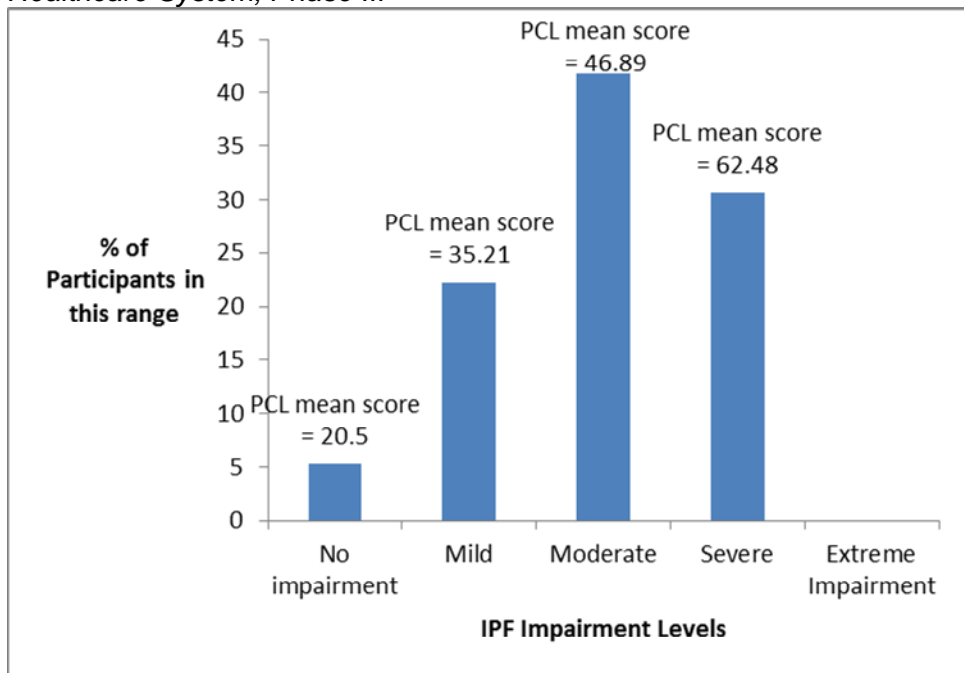


Figure 3. PTSD severity scores by IPF impairment distribution. PTSD was assessed using the PCL, VA Pacific Islands Healthcare System, Phase III

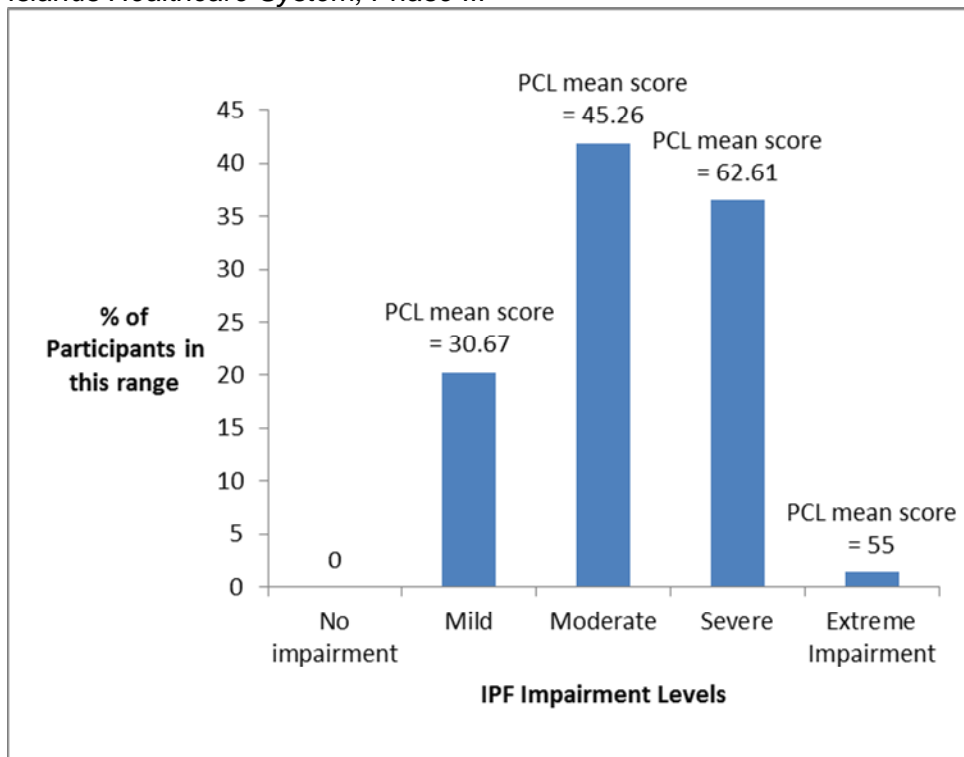


Figure 4. Depression severity scores by IPF impairment distribution. Depression was assessed using the PHQ , VA Boston Healthcare System, Phase III

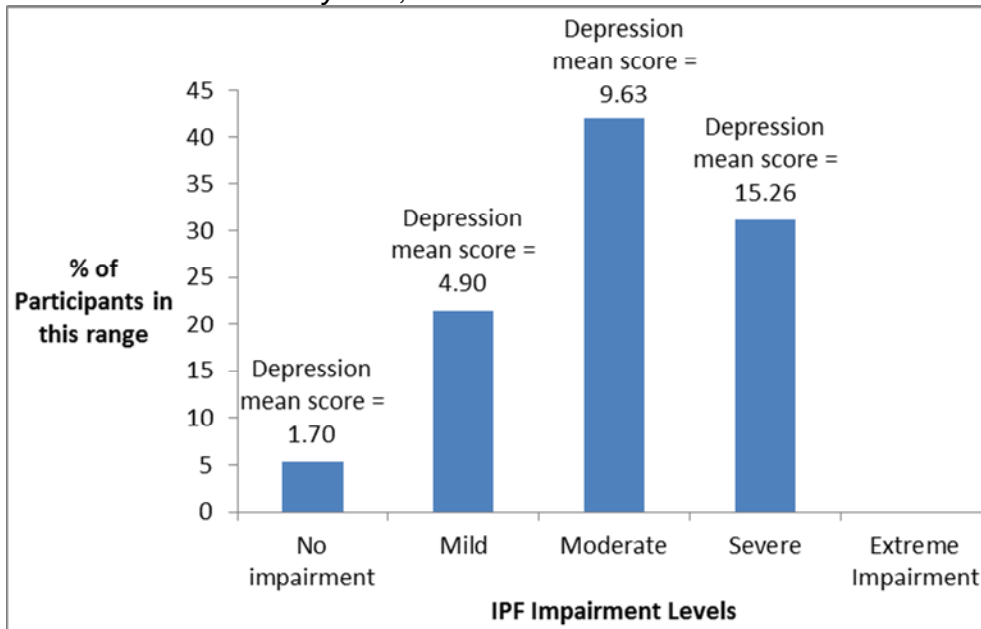
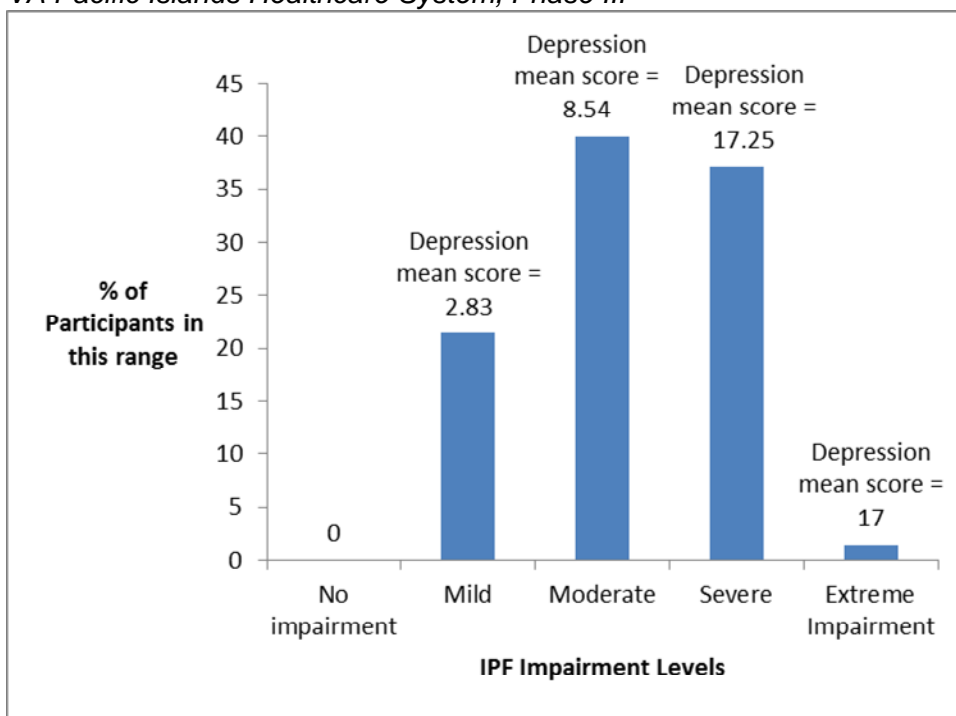


Figure 5. Depression severity scores by IPF impairment distribution. Depression was assessed using the PHQ , VA Pacific Islands Healthcare System, Phase III



5. Final Analysis and Preparation of Reports: Final analyses from the study have been completed with the help of the statistics consultant. The results have prepared for presentation at professional conferences and for peer-reviewed publication submission. The first version of the manual for use of the IPF has been prepared.

In addition to all of the analyses already presented, we have conducted preliminary confirmatory factor analyses using data from our funded project as well as other data that we have been able to simultaneously collect in additional investigations in which we have been able to include the IPF.

This CFA was conducted to evaluate the hypothesized unidimensional structure of the IPF. Given the large number of respondents ( $N = 3,101$ ), the overall sample was stratified by the six subsamples and randomly split into halves. The first half was used to test our initial hypothesis regarding the IPF factor structure and make necessary adjustment to achieve a model with satisfactory fit to the data. After arriving at a factor structure that fit the data well while being consistent with our theory, we cross-validated its fit with data from the second half of the sample. The fit of this model was also evaluated in the full sample.

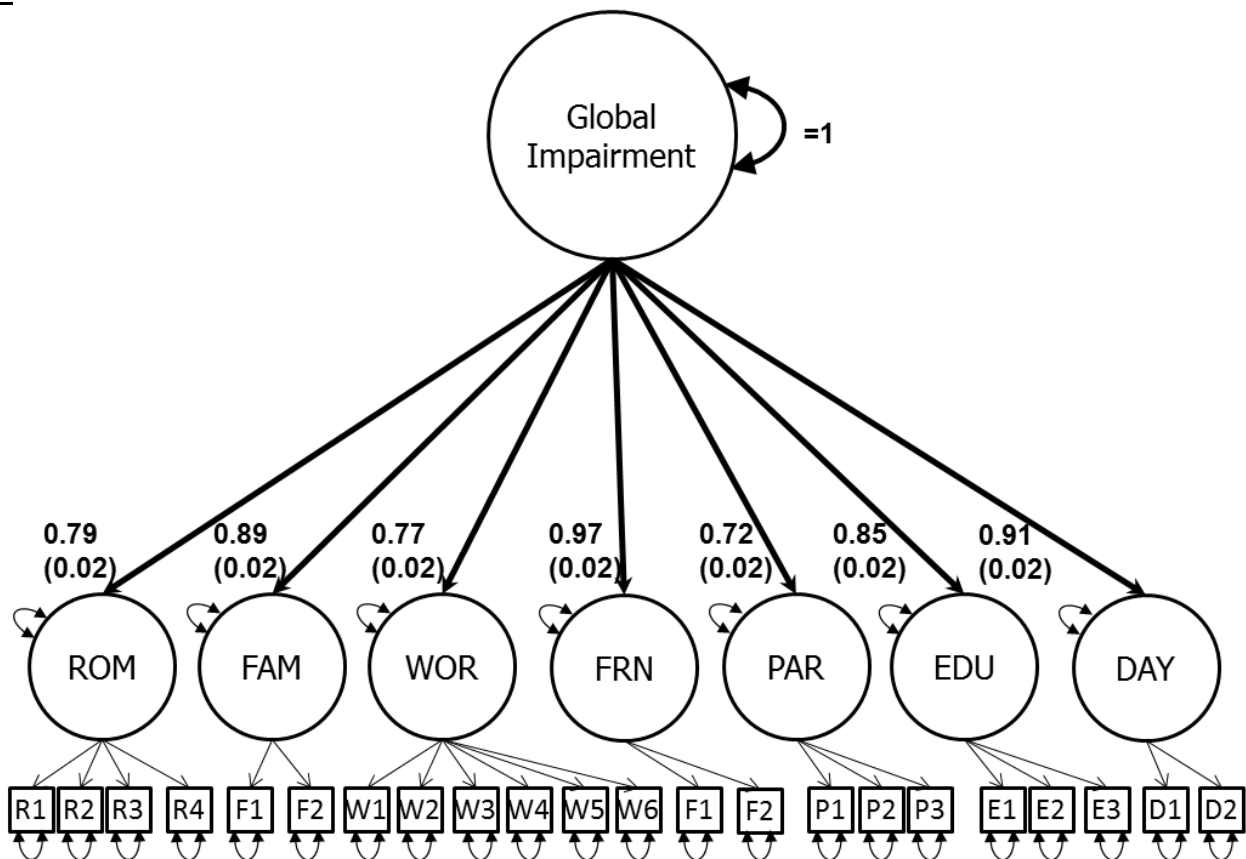
Prior to conducting the CFA, the 80 IPF items were grouped into 22 item parcels. For each of the seven IPF subscales, two to five items were rationally grouped to create multiple indicators of a latent, domain-specific impairment factor. Parcel variance was homogeneous and ranged from 1.34 to 2.47. The use of parcels, rather than individual items, was based on an internal consistency approach for multifaceted constructs (Little, Cunningham, Shahar, & Widaman, 2002). Given the large number of items in the IPF, use of individual items as latent factor indicators may yield spurious correlations or specific sources of variances that are not of theoretic interest. Additionally, parcels tend to produce more stable solutions than item-level data because fewer parameters are estimated in the former case than in the latter.

Models were evaluated using the comparative fit index (CFI; Bentler, 1990), root mean square error of approximation (RMSEA; Steiger, 1990), standardized root mean square residual (SRMR; Bentler, 1995), and Bayesian Information Criterion (BIC; Schwarz, 1978). Across all models, missing data were accommodated by full-information maximum likelihood estimation procedures. Analyses were conducted with Mplus software version 7 (Muthen & Muthen, 1998-2012).

In the hypothesized factor structure, the second-order latent factor represented a unitary construct of global impairment. Subsumed under this second-order latent factor were seven first-order latent factors. Each of the first-order factors reflected functional impairment in a specific domain (e.g., family, work) as measured by an IPF subscale. Therefore, each first-order factor was indicated by parcels comprising items in the corresponding IPF subscales (see configuration in Figure). This model yielded adequate fit to the data from the first half of the sample:  $\chi^2 (df) = 1065.13 (202)$ ,  $p < .0001$ ; CFI = .91; SRMR = .061; RMSEA = .053 (95% CI: .050 -- .056), BIC = 62639.95. Specifically, SRMR was below the cutoff value of .08 for good fit (Hu & Bentler, 1999); RMSEA was below the .08 standard for reasonable fit and approached the .05 standard for close fit (Browne & Cudeck, 1993); and CFI was within the .90 -- .95 range for acceptable fit given good performances on other fit indices (Bentler, 1990). Factor loadings for parcels and first-order latent factors were all in the expected direction and had critical ratios exceeding 2.00 (minimum critical ratio = 10.60).

Based on the above findings, we fit the data to the second half of the sample:  $\chi^2 (df) = 1330.75 (202)$ ,  $p < .0001$ ; CFI = .88; SRMR = .071; RMSEA = .060 (95% CI: .057 -- .063), BIC = 64463.00. In the overall sample, model fit was acceptable and offered further support for our hypothesis:  $\chi^2 (df) = 2188.00 (202)$ ,  $p < .0001$ ; CFI = .89; SRMR = .063; RMSEA = .056 (95% CI: .054 -- .058), BIC = 126687.16. A figural representation of this model fit to the entire sample is displayed in the figure.

Figure 6



Hypothesized structural equation model fit to the entire sample ( $N = 3,101$ ). Circles represent latent variables. Squares represent manifest variables (parcels). Single-headed arrows represent factor loadings. A double-headed arrow represents factor variance or residual variance. Standardized parameter estimates (standard errors in parentheses) are shown here. For clarity, factor loadings on manifest indicators are not displayed. ROM = functional impairment in romantic relationship with spouse or partner; FAM = family-related functional impairment; WOR = work-related impairment; FRN = impairment related to friendships and socializing; PAR = impairment related to parenting; EDU = impairment related to educational pursuits; DAY = day-to-day functional impairment.

Many of the results obtained from this project and reported in this final report have been presented at the annual meetings of the International Society for Traumatic Stress Studies 2012, 2010, 2009; Association for Behavioral and Cognitive Therapies 2012; Anxiety Disorders Association of America 2011, 2010; the 6<sup>th</sup> World Congress of Behavioral and Cognitive Therapies 2010; and the 43rd meeting of the Association for Behavioral and Cognitive Therapies 2009. We have also published a paper in the *Journal of Research and Development*, and presented results as part of a book chapter. Lastly, we have prepared an initial draft of the User's Manual for the IPF which is included in Appendix F.

## KEY RESEARCH ACCOMPLISHMENTS

- Trained all research staff, including postdoctoral fellows and research assistants.
- Obtained all relevant approvals for the protocol
- Finalized Statistical Analysis
- Prepared and finalized the *Inventory of Psychosocial Functioning (IPF)* and the *Brief Inventory of Psychosocial Functioning (B-IPF)*
- Recruited 730 participants across Phases I, II, and III, which exceeded slightly our initial goal of 725 veterans. Of those, 696 passed a validity check and were used in psychometric analyses of the IPF. We also recruited an additional 100 participants to assess test-retest reliability properties of the measures; of those, for this report, we analyzed the data of 51 participants who returned to the clinic exactly less than 30 days of their initial visit.



- Collected data on the Brief IPF from 2,801 active duty personnel.
- Included our new measure in several other ongoing studies as well as in the intake packet for our outpatient PTSD clinic. In total, across these additional efforts, 2,503 additional individuals have completed the 80 item version of the IPF. We fully intend to examine these data and use them in subsequent publications and presentations.
- Presented study at numerous professional society and research meetings (See Reportable Outcomes below)
- Published one paper in relevant peer-reviewed journal, one book chapter, and a new paper is in preparation. (See Reportable Outcomes below)

## REPORTABLE OUTCOMES

### Publications

1. Chen, M., Holowka, D.W., Glossner, K., Rodriguez, P., Schnurr, P., Lunney, C. A., Weathers, F.W., Sloan, D. M., Keane, T. M., & Marx, B.P. (In Preparation). Guilt and Functioning among Trauma Exposed Veterans: the Mediating role of Posttraumatic Stress.
2. Rodriguez, P., Holowka, D. W., & Marx, B. P. (2012). Assessing functional impairment related to posttraumatic stress disorder. *Journal of Rehabilitation Research & Development*. 49 (5), 649-65.
3. Holowka, D. W., & Marx, B. P. (2012) Assessing PTSD-related functional impairment and quality of life. In: Beck G. Sloan DM (Eds.), *Oxford Handbook of Traumatic Stress Disorders*. Forthcoming. USA: Oxford University Press.

### Poster Presentations

Submitted in 2013:

- Kulish, A.L., Rodriguez, P., Marx, B.P., Weathers, F., Schnurr, P., Lunney, C. Patterns of Functional Impairment among Veterans with Full and Subthreshold Posttraumatic Stress Disorder. Poster abstract submitted for presentation at the annual meeting of the International Society for Traumatic Stress Studies, Philadelphia, PA 2013.
- Clark, J., Chen, M., Gorman, K., Rodriguez, P., Marx, B.P. Predictors of Suicidal Ideation among Veterans. Poster abstract submitted for presentation at the annual meeting of the International Society for Traumatic Stress Studies, Philadelphia, PA 2013.

### Poster Sessions Presented:

Rodriguez, P., Holowka, D. H., Han, S. C., Schnurr, P., Lunney, C., Weathers, F. W., Sloan, D.M., Keane, T., & Marx, B. P. (2012). Underreporting symptoms of PTSD: Associations with Self-Deception and Impression Management in a Veteran Sample. Poster session presented at the annual meeting of the International Society for Traumatic Stress Studies, Los Angeles, CA.

Franz, M.R., Gorman, K.G., Lachowicz, M.J., Holowka, D.W., Rodriguez, P., Schnurr, P.P., Lunney, C.A., Weathers, F., Sloan, D.M., Keane, T.M., Marx, B.P. (November 2012). *Communication deficits as a mediator between PTSD severity and intimate relationship problems among combat veterans*. Poster submitted for presentation at the annual meeting of the Association for Behavioral and Cognitive Therapies, National Harbor, MD.

Chen, M. S., Glossner, K. J., Holowka, D. W., Rodriguez, P., Marx, B. P., Schnurr, P., Lunney, C., Weathers, F., Sloan, D. M., Keane, T.M. (2011, March). Guilt, Posttraumatic Stress and Suicidal Ideation Among Trauma-Exposed Veterans. Poster presented at the 31st annual meeting of the Anxiety Disorders Association of America, New Orleans, LA.

Rodriguez, P., Marx, B.P., Han, S., Holowka, D., Schnurr, P. P., Lunney, C., Weathers, F., Sloan, D. M., & Keane, T. M. (2011, March). *PTSD symptoms and psychological impairment among veterans*. Poster session presented at the annual meeting of the Anxiety Disorders Association of America, New Orleans, LA.

- Holowka, D.W., Marx, B.P., Rodriguez, P., Gates, M, Rosen, R.C. & Keane, T.M. (2011, March). Medical Chart PTSD Diagnostic Accuracy among OEF/OIF Veterans: Preliminary Results. Poster presented at the 31st annual meeting of the Anxiety Disorders Association of America, New Orleans, LA.
- Ratchford, E., Holowka, D. W., Marx, B. P., Rodriguez, P., Schnurr, P., Lunney, C., et al. (2010, November). *Psychopathy as a moderator of social impairment in PTSD*. Poster presented at the International Society for Traumatic Stress Studies 25<sup>th</sup> Annual Meeting, Montreal, Quebec, Canada.
- Ratchford, E., Shirai, A., Holowka, D. W., Rodriguez, P., Marx, B. P., Schnurr, P., et al. (2010, June). *Guilt, PTSD symptom severity, and functional impairment among trauma-exposed Veterans*. Poster presented at the 6<sup>th</sup> World Congress of Behavioral and Cognitive Therapies, Boston, MA.
- Rodriguez, P., Marx, B. P., Holowka, D. W., Schnurr, P., Lunney, C., Weathers, F., Sloan, D. M., Shirai, A. C., Keane, T. M. (2010, June). *Predictors of functional impairment among Veterans with a history of trauma*. Poster presented at the World Congress of Behavioral and Cognitive Therapies, Boston, MA.
- Rodriguez, P., Shirai, A.C., Marx, B.P., Kaloupek, D., Keane, T.M. (2010, March). *Environmental and personal predictors of functional impairment among Veterans*. Poster presented at the 30th annual meeting of the Anxiety Disorders Association of America, Baltimore, MD.
- Marx, B.P., Schnurr P., Rodriguez, P., Holowka, D.W., Lunney, C., Weathers, F., Sloan, D., & Keane, T.M. (2009, November). *Development and Validation of a Scale to Assess Functional Impairment Among Active Duty Service Members and Veterans*. Paper presented at the 25th annual meeting of the International Society for Traumatic Stress Studies, Atlanta, GA.
- Foley, K. M., Rodriguez, P., Shirai, A. C., Ashe, M. P., Marx, B. P., Kaloupek, D. G., & Keane, T. M. (2009, November). Personality Traits Predict Participation in War-time Abusive Violence. Poster presented at the 43rd meeting of the Association for Behavioral and Cognitive Therapies, New York, NY.
- Marx, B.P., Schnurr P., Rodriguez, P., Holowka, D.W., Foley, K.M., Shirai, A.C., Ratchford, E.A., Lunney, C., Weathers, F., Sloan, D., & Keane, T.M. (2009, September). *Development and Validation of a Scale to Assess Functional Impairment Among Active Duty Service Members and Veterans*. Poster presented at the Department of Defense (DOD) Military Health Research Forum (MHRF); Kansas City, MO.

### **Congressional and Public Policy Related Work:**

1. May 4-5, 2010, participated in the Defense Health Board Clinical Workgroup on Evidence-based metrics for use in screening active duty soldiers and veterans on an annual basis as well as pre- and post-deployment, Washington, DC.

### **Personnel Receiving Pay from this Research Effort**

Personnel who have received salary from this research effort are Paola Rodriguez, Ph.D. (Project Coordinator), Michelle Bovin Ph.D. (study interviewer), Darren Holowka PhD (study interviewer), Sohyun Han (Research Assistant), Fabiana Cabral (Research Assistant), May Chen (Research Assistant), Justin Clark (Research Assistant), Molly Franz (Research Assistant), Kaitlyn Gorman (Research Assistant), Andrea Kulish (Research Assistant), Heather Kapson PhD, Mary Alice Millis PhD, Erin Ulloa PhD. Consultants who received reimbursement from this research project were Frank Weathers PhD and Carole Lunney M.A. Personnel who received travel or instrument purchase reimbursement from this grant were Brian Marx, PhD, Paola Rodriguez PhD, Denise Sloan PhD.

### **CONCLUSIONS**

This project met the goal of designing and validating a psychometrically sound inventory of PTSD-related functional impairment, the full length Inventory of Psychosocial Functioning (IPF), as well as a brief form (Brief-IPF), for active duty service members and veterans. The inventory included assessment of multiple dimensions of functional impairment and their impact on quality of life. The development and validation of a measure of PTSD-related functional impairment has enormous value from a health care perspective in terms of

identifying individuals with the disorder and for promoting more efficient allocation of resources and efforts towards those who are in most need. Perhaps the biggest impetus to develop a multidimensional PTSD-related functional impairment scale was to address the need to document the full effects of this disorder on sense of self, role functioning, interpersonal relationships, employment and financial status and living conditions as well as to demonstrate the impact of interventions on these areas.

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## **LIST OF APPENDICES**

- A. Study Protocol**
- B. Inventory of Psychosocial Functioning**
- C. Brief Inventory of Psychosocial Functioning**
- D. List of groups and individuals requesting the IPF**
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## **Appendix A**

### **Study Protocol**

## Study Protocol

### Title. Development and Validation of a PTSD-related Functional Impairment Scale

#### 1. PI/ Study Staff.

Brian P. Marx, Ph.D. (PI)

Paula P. Schnurr, Ph.D., (Co-I)

James L. Spira, Ph.D. (Co-I)

Terence M. Keane, Ph.D. (Co-I)

Carol Lunney, MA (consultant)

Frank Weathers, Ph.D. (consultant)

Paola Rodriguez, Ph.D. (Study coordinator)

#### 2. Study Locations.

VA Boston Healthcare System, Boston MA

Walter Reed Army Institute for Research, Silver Spring MD

VA Pacific Islands Healthcare System, Spark M. Matsunaga VA Medical Center, Honolulu HI

#### 3. Background.

##### **PTSD and its Relation to Functioning**

PTSD has a negative impact on a range of functional outcomes, including health-related quality of life (e.g., Schnurr et al., 2006; Magruder et al., 2004; Rapaport, Endicott, & Clary, 2002; Schnurr et al., 2000), occupational functioning (e.g., Stein et al. 1997; Zatzick et al., 1997; Amaya-Jackson et al., 1999; Smith, Schnurr, & Rosenheck, 2005), psychosocial functioning (e.g., Kuhn, Blanchard, & Hickling, 2003; Stein et al., 2000; Schnurr et al., 2006) and subjective quality of life (e.g., Paunovic & Öst, 2004; Gudmundsdottir et al., 2004). Additionally, psychosocial functioning improves after treatment for PTSD (e.g., Malik et al., 1999; Rapaport, Endicott, & Clary, 2002; Paunovic & Öst, 2001). Schnurr et al. (2006) found that change in PTSD symptoms was associated with change in both psychosocial and physical health-related functioning. Lunney and Schnurr (in press) found that clinically significant change in PTSD symptoms was associated with improvement in multiple domains of quality of life.

A number of recent studies have compared the impact of PTSD and other anxiety disorders on functional outcomes. For example, Rapaport et al. (2005) found that participants with PTSD showed functional impairments that were both more likely to be severe and more pervasive relative to those with other anxiety disorders. A recent meta-analysis of quality of life in anxiety disorders (Olantunji et al., 2007) found large effect sizes for PTSD across multiple domains of quality of life. Although they found no differences in overall quality of life, they found that impairments in some domains might be different across anxiety disorders. With respect to specific domains, there was some evidence to suggest that not all anxiety disorders were associated with the same types and severity of impairments and that, in relation to other anxiety disorders, PTSD was always associated with lesser quality of life.

One of the striking features of the studies on functional outcomes in PTSD (and functional outcomes in other disorders) is the variety of instruments used to measure and describe these outcomes. For example, two recent reviews of quality of life in the anxiety disorders (Mendlowicz & Stein, 2000; Mogotsi, Kaminer & Stein, 2000) included findings on subjective quality of life, psychosocial impairment, and physical health functioning. These authors noted that, while there is no agreed upon definition of quality of life, there is broad agreement that a good measure should include subjective and objective assessments across a variety of domains. Given the possibility that particular symptoms or characteristics of different disorders may have distinctive effects on quality of life, these authors also suggested the utility of developing disorder-specific scales.

##### **The Effects of Specific PTSD Symptoms on Functioning**

Although no PTSD-specific measure of functioning exists, several cross-sectional studies have examined the possibility that PTSD symptom clusters are differentially related to domains of functioning. The avoidance/numbing cluster, and in particular, emotional numbing symptoms, are related to psychosocial functioning. Numbing symptoms uniquely predict intimate relationship distress (Riggs et al., 1998), parenting satisfaction (Ruscio et al., 2002), and several other areas of psychosocial functioning (Recreation, Family, and Friends; Kuhn, Blanchard, & Hickling, 2003); the combined avoidance/numbing cluster also uniquely predicts parenting satisfaction (Samper et al., 2004). A suggested explanation for these findings is that the emotional numbing symptoms of PTSD lead to withdrawal and difficulties expressing emotion (Litz, 1992; Litz & Gray, 2002; Riggs et al., 1998; Samper et al., 2004).

Fewer studies have examined how PTSD symptom clusters relate to other domains of functioning. Kuhn et al. (2003) found that hyperarousal symptoms uniquely predicted Major Role Functioning in a treatment-seeking sample of MVA survivors. However, in a sample of MVA survivors with lower symptom severity, avoidance and numbing both uniquely predicted Major Role Functioning. In a study of cognitive-behavioral treatment for PTSD, Taylor et al. (2006) found that reexperiencing and hyperarousal symptoms were correlated with occupational functioning, and changes in reexperiencing, numbing, hyperarousal were all correlated with change in occupational functioning after treatment. Several authors have suggested that the physiological correlates of PTSD symptoms such as hyperarousal may be interpreted as signs of physical illness (e.g., Litz et al., 1992; Zoellner et al., 2000). Kimerling and colleagues (2000) found that hyperarousal symptoms uniquely predicted self-reported health symptoms and health perceptions. Woods and Wineman (2000) found that both avoidance and hyperarousal symptoms were related to physical health symptoms.

Lunney and Schnurr (in press) examined the relationship between domains of quality of life (Achievement, Self-Expression, Relationships and Surroundings) and PTSD symptom clusters in male veterans participating in a randomized clinical trial of group therapy for PTSD. Before treatment, numbing symptoms were uniquely associated with all domains of quality of life. Different patterns emerged in analyses to predict change in each domain. Findings were generally consistent with past research, with some exceptions. Change in the hyperarousal and avoidance clusters was uniquely associated with change in Achievement, which included health, role functioning (work, money) goals and values, as well as self-esteem. Change in reexperiencing was uniquely associated with change in Self-Expression. Items in this domain included play, learning, and creativity. Change in numbing was uniquely associated with change in Relationships, which is consistent with past research showing the impact of numbing on intimate relationships and relationships with children (e.g., Kuhn et al., 2003; Riggs et al., 1998; Ruscio et al., 2002). Schnurr and Lunney (accepted with revisions) extended these findings by examining gender differences in the relationship between symptoms and quality of life. As was the case for the male veterans, numbing was the only PTSD symptom cluster uniquely associated with poorer quality of life for female veterans enrolled in a randomized clinical trial of group therapy for PTSD.

Understanding the relationship between specific symptoms of PTSD and impaired functioning and quality of life may have important implications for treatment planning and assessment. Norman, Stein, and Davidson (2007) point out that "identification of posttraumatic symptoms associated with functional impairment is also important from a public health perspective" (p. 49). Their study identified specific PTSD symptoms that differentiated between those with and without impairment in occupational and/or social functioning in two separate community surveys of PTSD. Two reexperiencing symptoms (emotional reactions after reminders and intense recollections or memories) and three hyperarousal symptoms (sleep problems, trouble concentrating, hypervigilance) were the top five most frequent symptoms endorsed by those classified as having functional impairment. After further refinement (requiring one of two specific reexperiencing symptoms and at least one of five specific avoidance, numbing and hyperarousal symptoms), their model identified those with functional impairment more accurately than PTSD diagnostic status (sensitivities of 74% versus fewer than 40% using DSM-IV criteria for PTSD).

### **Limitations of Current Measures Used to Assess PTSD-Related Functioning**

Previous research suggests that in order to adequately assess PTSD-related functional impairment we need a measure that covers the distinct relations between PTSD symptom clusters and various domains of functioning. Currently, no such measure exists. There are other reasons why existing measures of functioning may not be optimal for determining the level of impairment associated with PTSD. Specifically, some existing instruments, such as the Sheehan Disability Scale (Sheehan, 1983; Leon et al., 1992) and the Global Assessment of Functioning (GAF; APA, 2001), are limited in that they only provide general or assessments of functioning. Other scales, such as the Medical Outcome Study (MOS) Short-form Health Survey-36 (SF-36) and World Health Organization Disability Assessment



Schedule (WHODAS), offer a more fine-grained analysis of functioning but emphasize physical disability and symptoms. As such, they focus on only part of the spectrum of functional problems among veterans and military personnel with PTSD.

### **The Importance of Accurately Measuring PTSD-Related Functional Impairment**

Our ability to adequately and competently assess PTSD-related functional impairment has great importance for the PTSD field. First, the means and methods by which we assess PTSD-related functional impairment affect our understanding of how frequently the disorder occurs among military personnel and veterans (e.g., prevalence of the disorder). This point is highlighted by a recent discussion in the literature regarding the recent Dohrenwend et al. (2006) reanalysis of the National Vietnam Veterans Readjustment Study (NVVRS). Although the reanalysis estimated that approximately 9% of Vietnam veterans were suffering from military-related PTSD (down from about 15%), critics complained that the estimated rate of PTSD was still too high because the measure of functioning that was used (the GAF) was heavily skewed towards identifying impairment (Frueh, 2007; McNally, 2007). McNally (2007) stated that if the NVVRS reanalysis had used a just a slightly more stringent cutoff score on the GAF for determining functional impairment, the prevalence of current PTSD would have dropped by 65% relative to the original NVVRS prevalence estimate.

The means and methods by which we assess PTSD-related impairment also are important for determining the extent to which various therapies may be considered beneficial for military-related PTSD. For example, two recent large scale VA Cooperative Studies examining the effects of group therapy (Schnurr et al., 2003) and individual cognitive-behavior therapy (CBT; Schnurr et al., 2007) showed that, while PTSD symptoms improved significantly, neither study found improvements on either the SF-36 or the Quality of Life Inventory (QOLI). These results suggest that either (1) the treatment did not improve functioning or quality of life or (2) the measures that are currently being used to assess functioning and quality of life are not sufficiently sensitive to assess PTSD-related improvement.

The means and methods by which we assess PTSD-related impairment also have implications for VA and DoD compensation and pension procedures and decisions. Related to this point are the recent findings of a committee convened by the Institute of Medicine (IOM) on behalf of the Veterans Benefits Agency (VBA) to address ongoing concerns about the current procedures used to assess PTSD among veterans in compensation and pension examinations. Among other things, the committee was asked to review the utility of the GAF in evaluating impairment associated with PTSD. The committee found that the GAF score has limited utility in the assessment of disability for PTSD compensation. The score is only marginally relevant to PTSD because of its emphasis on the symptoms of mood disorder and schizophrenia and its limited range of symptom content. Importantly, the GAF has not been shown to have good psychometric properties within the VA system and, particularly, within samples of veterans suffering from PTSD. The committee recommended that VA ultimately identify and implement an appropriate replacement for the GAF, although they did not specifically identify any such replacement.

In sum, the means and methods by which we measure PTSD-related functional impairment have enormous value from a health care perspective in terms of identifying individuals with the disorder and for promoting more efficient allocation of resources and efforts towards those who are in most need. Perhaps the biggest impetus to develop a multidimensional PTSD-related functional impairment scale is to address the need to document the full effects of this disorder on sense of self, role functioning, interpersonal relationships, employment and financial status and living conditions as well as to demonstrate the impact of interventions on these areas.

#### **4. Objectives/Specific Aims.**

This project has the long-term goal of designing and validating a psychometrically sound inventory of Posttraumatic Stress Disorder (PTSD)-related functional impairment (Inventory of Psychosocial Functioning; IPF) for active duty service members and veterans. The inventory will include assessments of multiple dimensions of functional impairment and their impact on quality of life.

This goal subsumes three specific objectives:

(1) To define and systematically operationalize each of the variables representing PTSD-related functional impairment. As detailed in the "Methods" section, this objective will be accomplished using a rational, classical test theory-oriented approach to instrument development. Of utmost concern at this stage is the soundness of the content of the core constructs, both content relevance and content breadth.

(2) To collect data from an initial test development sample of veterans and conduct first-stage psychometric analyses. Item and scale characteristics will be derived and scrutinized to refine the item sets for optimal internal consistency reliability, as appropriate.

(3) To cross validate results from the initial test development using an independent sample and to establish criterion-related validity.

### **Primary Hypotheses**

1. Current PTSD will be related to greater functional impairment on the newly developed scale. Specifically, we expect that (a) individuals with current PTSD will have higher impairment scores relative to individuals with past PTSD or no PTSD; (b) current PTSD symptom severity will be positively correlated with impairment scores; and (c) these relationships will be maintained even when adjusted for a measure of malingering.

2. The new scale will be related to existing scales used to measure functioning but will be more sensitive than these existing scales to PTSD-related variability. Specifically, we expect that scores on our newly developed measure will be (a) correlated with existing measures of functioning; and (b) more highly correlated than these existing measures with current PTSD diagnosis and symptom severity.

### **Secondary Hypothesis**

3. PTSD symptom clusters (i.e., reexperiencing, avoidance and numbing, hyperarousal) will be differentially related to the dimensions of functioning identified on the new scale. Based on previous work, we expect that numbing symptoms will be uniquely related to functional impairment. However, because we expect our newly developed scale to be superior to the existing measures on which the prior work was based, it is possible that we will identify a different pattern of relationships between PTSD symptoms and domains of impairment.

### **Exploratory analyses**

We will conduct a series of exploratory analyses to examine whether the relationship between PTSD and functioning on the new scale are consistent across genders, ethnic groups, and age. We will also conduct exploratory analyses to examine differences in functional impairment across active military and veteran samples.

By creating and validating an inventory to assess PTSD-related functioning--as they are perceived and reported by active military personnel and veterans--we hope to offer a useful tool for clinicians, researchers and military leaders.

The proposed project will provide information to assist military leaders to better prepare personnel for future deployments and DoD and VA health-care policy-makers and practitioners to plan and implement more effective prevention and treatment programs. The major product, a portable PTSD-related functional impairment assessment device, is intended to be a standard tool for use by other researchers and a prototype measure of psychosocial features of future deployments.

### **5. Research Design.**

The currently proposed project will adhere to the scientifically-based process of construct validation as a guiding framework to generate a conceptually meaningful and psychometrically sound set of measures. As will be evident in the description of the study's major phases (to follow), we attempt to systematically give due attention to each element of the process. As with virtually all instrument development studies, the research design for the project is observational and cross-sectional, and there is no control or comparison group per se. Phase 1 will involve the use of focus groups to obtain critical information about the domains to be assessed. For Phase 2, involving the computation of item and scale characteristics, the emphasis is to achieve a sample that has broad dispersion or a wide range of scores on the attributes that are the focus of the psychometric inquiry and ample representation of the kinds of persons for whom the instrument is intended (Anastasi, 1982; Nunnally, 1978). Hence, Phase 2's test development sample and hypothesis testing ( $n = 300$ ) will be constituted by veterans, of which approximately 15% will be women and 85% will be men. Further, data will be collected from a diverse sample of veterans, with representation from Vietnam, Persian Gulf, and OEF/OIF conflicts. These purposeful proportions will assure adequate numbers of persons with and without functional impairments within important demographic groupings and thus provide sufficient levels of individual differences for the psychometric analyses. For Phase 3, involving test validation and hypothesis testing, a sample of 1,800 active duty personnel and 300 veterans recruited from the VA Boston from Vietnam, Persian Gulf,

and OEF/OIF conflicts will be used ( $n = 2,100$ ). In order to assess the test-reliability of the IPF, we will ask 100 participants of the Phase 3 veteran sample to return to the testing site four weeks after their initial visit to re-administer the entire survey packet. To maximize the participation of these 100 participants, we will reimburse them another \$30, plus an additional \$15 for their second visit. That is, they will receive \$30 for their Time 1 visit and \$45 for their Time 2 visit. The remaining data from Phase 3 participants will be collected at the Pacific Islands VA Healthcare System ( $n = 100$ ). This data collection will be overseen by Dr. James Spira, Director of the National Center for PTSD Pacific Islands Division. As with Phase 2, we will aim to recruit a sample in which approximately 15% will be women and 85% will be men.

#### 6. Study Population.

Participants in the study will be veterans with representation from Vietnam, Persian Gulf, and OEF/OIF conflicts. We will also include a sample of active duty personnel in this study.

#### 7. Inclusion/Exclusion Criteria.

The only criterion for inclusion in the study is the participants will be veterans and active duty service members who are able to read. Women and minorities will be included in the proposed research. Fifteen percent of the veterans in the study will be women and 85% will be men. Like our veteran group we anticipate the active duty sample to consist of approximately 15% women and 85% men.

#### 8. Description of Recruitment Process.

Adequate numbers of potential participants are available at National Center for PTSD in Boston for Phases 1, 2, and 3. For example, in 2006, 128 new veterans presented for PTSD treatment at the outpatient PTSD clinic located at the Jamaica Plain Boston campus. In total, our PTSD clinic treats over 300 veterans with PTSD a year. In addition, we perform approximately 20 to 30 monthly PTSD assessments (240 to 360 per year) and these individuals will be provided with information regarding this study. Across the entire VA healthcare system we have seen a substantial increase in veterans presenting for PTSD services in the past several years. For example, since 1996 there has been a 201% increase in the number of veterans who present for PTSD treatment (Fontana, Rosenheck, Spencer, & Gray, 2007). Potential participants will also be recruited from our large database of veterans who have previously consented to be contacted regarding research participation, either following a clinical evaluation at the National Center for PTSD Behavioral Science Division (BSD) or through recruitment efforts by prior researchers in the BSD ( $N = 588$ ). Although we will recruit participants from our PTSD clinic and database for Phases 1, 2, and 3 of this study, we will conduct additional recruitment efforts throughout the Boston VA Healthcare System, which includes community-based outpatient clinics and additional VA medical centers within our respective VA systems (e.g., Brockton campus of Boston VAMC) by posted flyers announcing the study. During Phase 3, we will also recruit participants via posted flyers at the VA Pacific Islands Healthcare System, Spark M. Matsunaga VA Medical Center, Honolulu HI. Given the large numbers of veterans who have consented to be approached for participation in research studies, the large number of veterans presenting to the National Center for PTSD assessment and treatment, as well as the large number of veterans being seen in VA Boston Healthcare System for services, the target number of participants for inclusion in the proposed study is feasible.

Potential participants who have previously consented to be contacted regarding research participation will be contacted via telephone by the study coordinator. Others who see our advertisements and who contact us will also talk with the study coordinator about their potential participation. Veterans who contact the NC-PTSD requesting a PTSD evaluation or those who are currently in treatment will be given written materials describing the study at their first appointment. Those who wish to participate will then speak with the study coordinator about participating. The study coordinator will inform potential participants that this is a study examining post military adjustment. If the potential participant is interested, he will be taken into the study and scheduled for an appointment. In Phase 3, at the time when potential participants are being scheduled for their initial visit, individuals will be asked if they are

interested in completing the same set of measures four weeks later, with a compensation of \$45 for their second visit. If the participant is interested, he will be scheduled for an appointment approximately four weeks after their initial visit. Targeted sample size for the test-retest reliability sample is 100 veterans.

VA Pacific Islands Healthcare System (VA-PIHCS) - During Phase 3, potential participants who see our advisements at the VA-PIHCS will be directed to speak with study staff at the VA-PIHCS. The study staff will inform them about the study and if the potential participant is interested, he or she will be: 1) taken into the study immediately, or 2) scheduled for an appointment at a more convenient time for the participant.

With respect to data collection with active military personnel in Phase 3, Drs. Hoge and Bliese have a successful history of collecting data with military samples. For example, Hoge et al. (2004) studied members of four U.S. combat infantry units (three Army units and one Marine Corps unit) using an anonymous survey that was administered to the subjects either before their deployment to Iraq ( $n = 2530$ ) or three to four months after their return from combat duty in Iraq or Afghanistan ( $n = 3671$ ). Thus, their target data collection of a 1,800 participants is quite feasible.

#### 9. Description of Informed Consent Process:

A trained member of the study staff will be responsible for obtaining informed consent. Study staff will explain the study and procedures and will be available to answer any questions. The informed consent process will begin once participants have arrived to the testing facility and meet with the study coordinator. For the veteran participants, the locations are the Boston VA, in a quiet room on the 12<sup>th</sup> Floor of the Jamaica Plain campus; the Brockton VA, in a quiet room on the 1<sup>st</sup> floor of Building 5; the VA-PIHC, in the conference rooms and/or research rooms on the 3<sup>rd</sup> floor of the ACC building. For the active duty participants, the informed consent will be in a large room with other participants and asked to complete the questionnaires independently and anonymously. All participants have the opportunity to ask questions of the administrator of the informed consent and to seek the ability to consult with others before making a decision regarding consenting. All participants will be informed that they may withdraw from the study at any time, and are not required to answer every item. We do not anticipate any illiterate participants or non-English speaking participants, but in the case that a potential participant cannot read English, he or she will not be asked to participate in the study. We are not seeking a waiver of consent and all participants will be 18 or older in age.

#### 10. Volunteer Screening Procedures:

We do not have any screening procedures. Although we require all participants to be able to read English, whether the participants meet this requirement will be determined at the time of the informed consent procedure.

#### 11. Study Procedures.

##### **Specific Objective 1/Phase 1: Define and Operationalize Content-Valid Item Sets**

In the first phase of this project, we will convene a series of focus groups, whose members will be a convenience sample ( $n = 53$ ) selected from veterans at the Boston VAMC. These groups will be used to set forth formal definitions of the PTSD-related functional impairment variables, create an item pool, and refine that pool with emphasis on standards of content validity, both content relevance and content breadth.

Using what in psychometrics is called the rational method to instrument construction (Edwards, 1970; Hulin, Drasgow, & Parsons, 1983; Nunnally, 1978), the first step will be to carefully delineate complete and clearly expressed written definitions of the PTSD-related dimensions of functioning and quality of life. An examination of the most up-to-date published literature will be ongoing to identify any new and pressing concerns and controversies that should be incorporated into the content of scale items. Another important source of information will be veterans of various conflicts with military-related PTSD in four focus group sessions (three focus groups with men and one focus group with women), each including 10 veterans and two research staff members as directors. The intent will be to pose a series of structured questions aimed at eliciting group members' functional impairments and quality of life issues related to their PTSD. In the end, we intend to have clear and unambiguous definitions of each of

the primary dimensions of functional impairment, based on both the scientific literature and the perspectives of veterans themselves.

Next, a table of specifications (Aiken, 1994) will be employed to aid in the orderly construction of items across content areas. In this regard, for each of the functional impairment dimensions, separate aspects of the definition will be identified, and items will be written so as to systematically represent these aspects. The goal will be to write an initial pool of 40 items for each concept. Items will likely be followed by a 5-point Likert-type response scale, with options ranging from "strongly disagree" to "strongly agree." Care will be taken to balance the valence of item keying so as to obviate any form of acquiescence response style. The language and comprehension level of the items will be monitored via the Flesch-Kincaid computation (Flesch, 1949), with a goal of no higher than the recommended 7<sup>th</sup> grade level for instruments intended for the general population.

Finally, as a check for item quality, a panel of five experts will be asked to review the item pool. This panel will include doctoral-level clinicians at the National Center for PTSD who have experience in stress research with military veteran populations, as well as career military personnel. Panel members will be given the pool of candidate items and the formal definitions from which the items were derived and asked to verify item content. In addition, each content expert will be asked to provide judgments regarding the content saturation of each item vis-à-vis its respective definition. They will also be asked to comment on item wording and clarity and provide any additional feedback that might improve the statements. Items that are not consensually endorsed because of content deficiency, lack of clarity, or other reasons will be eliminated.

The end result of these steps should be an initial pool of 30 to 35 items for each construct. Consistent with classic psychometric guidelines (e.g., Nunnally, 1978), this number of items should be adequate to produce individual scales with 15 to 20 items each, which, in turn (if the rational approach described above has been faithfully followed), should be a sufficient number to exhibit acceptable psychometric characteristics.

### **Specific Objective 2/Phase 2: Compute Item and Scale Characteristics and Establish Reliability**

Phase 2 has the objective of selecting the best final sets of items to measure the identified dimensions of PTSD-related functional impairment as well as to assess criterion-related validity. Using empirically derived item and scale characteristics, we will trim the item pool to arrive at smaller, higher-quality, and more parsimonious sets. For all scales, content relevance and content breadth, in line with the formal definition of each factor, will be maintained.

Data collection and additional instrumentation. The test development sample will be selected in accordance with the sampling plan. Three hundred consenting veterans at the Boston VA Healthcare System will participate in interviews, each lasting approximately two hours. Eighty-five percent of participants will be male and 15% will be female. We aim to collect data from veterans who meet criteria for current PTSD (one-third of sample) as well as those who meet criteria for lifetime but not current PTSD (one-third of sample) and those who have been traumatized but do not meet criteria for current or lifetime PTSD (no PTSD; one-third of sample). Further, we will collect data on a diverse sample of veterans, with representation from Vietnam, Persian Gulf, and OEF/OIF conflicts.

Historical/demographic information will be obtained during the interview as well as through chart review concerning the following variables: age, race, socioeconomic status, current annual income, employment, education, and marital status. In addition, historical data regarding illegal behaviors, suicide attempts, psychiatric hospitalizations, prescription medications, interpersonal conflicts, and service connection disability status will be collected. We will also obtain pertinent information from veterans' military history, including declaration of combat theatre duty and military occupational specialty.

PTSD diagnosis will be assessed using the Clinician-Administered PTSD Scale for DSM-IV (CAPS). The CAPS was designed to improve the reliability and validity of PTSD assessment. Since its development, the CAPS has become the gold standard for arriving at a PTSD diagnosis, either current or lifetime, and has been used in more than 200 published studies. The CAPS is a semi-structured clinical interview that is designed to assess the 17 core symptoms of PTSD as defined by the DSM-IV along with five associated features. The CAPS interview includes the following components: life events checklist (Criterion A – trauma exposure), PTSD core symptoms (Criteria B – reexperiencing, Criterion C – numbing and avoidance, and Criterion D – hyperarousal), Criterion E (chronology), and Criterion F (functional impairment associated with PTSD symptomatology). The CAPS allows the interviewer to rate the frequency and intensity of each symptom along five-point ordinal scales, the impact of symptoms on the patients social and occupational functioning, the overall severity of the symptom complex, and the global validity of ratings obtained. This results in finer discriminations in the frequency and intensity of PTSD symptoms. The total score for

the CAPS PTSD ratings (frequency + intensity) range from 0 to 136. A significant advantage of the CAPS is that cutoff scores can be adjusted for optimal prediction in different populations or against more or less stringent criteria. This feature can be used to yield either a dichotomous (i.e., present or absent) or continuous (i.e. severity) scores for each symptom and for the disorder as a whole.

Functional impairment will be assessed using several established measures. The Medical Outcomes Study 36-item Short Form Health Survey-veterans version (SF-36V; Ware & Sherbourne, 1992) provides eight domain scores indexing physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role, and mental health; in addition, summary physical and mental health scores may be computed. The reliability and validity of the SF-36 are well documented (e.g., McHorney, Ware, & Raczek, 1993).

The World Health Organization Disability Assessment Schedule II (WHODAS II) is a measure of functional disability which assesses a wide-range of impairment and disability dimensions using multi-item scales including pain, concentration, understanding and communicating, mobility, self care, family burden, getting along with others, household and work activities and work loss, and participation in society (Appendix A:WHODAS). All of the six domains on the WHODAS-II have factor loadings of at least 0.7 and each individual item correlates positively (ranging from 0.48 to 0.93) to its respective domain. The WHODAS-II is used across countries and population groups and has high test-retest reliability ( $\kappa$  .65-.78) and correlates with measures of quality of life such as the SF-12 and SF-36, the London Handicap Scale, and the WHOQOL. The WHODAS-II is becoming widely used in investigations of functional disability across wide-ranging populations, including the physically ill (i.e. rheumatology, pulmonary, primary care cohorts) and severely mentally ill (schizophrenic cohorts). Although patients with PTSD and related anxiety disorders were included in the original multi-center development of the instrument, the WHODAS-II has not been employed specifically with trauma survivors. For this study, we will use the 36-item self-report version of this scale. Scores for each of the 6 individual domains, as well as an overall score of global functional disability can be calculated.

The Global Assessment of Functioning (GAF) is the standard method for representing a clinician's judgment of a patient's overall level of psychosocial functioning. As such, it is probably the single most widely used method for assessing impairment among patients with psychiatric or substance use disorders or both. The GAF requires a clinician to make an overall judgment about a patient's current psychological, social, and occupational functioning. In *DSM-IV-TR*, this rating is made on a scale from 1 to 100, with ratings of 1 to 10 indicating severe impairment and ratings of 91 to 100 indicating superior functioning. GAF ratings of impairment are modestly associated with some indexes of social functioning, such as the extent of social networks and the need for support, and with residential instability, lack of employment, and poor work adjustment. In general, however, these relationships are relatively weak; GAF ratings tend to be more closely associated with diagnoses and psychiatric symptoms than with social and occupational functioning.

General life satisfaction, defined as "an individual's evaluation of the degree to which his or her most important needs, goals, and wishes have been fulfilled" (Frisch, Cornell, Villanueva, & Retzlaff, 1992, p. 93) will be measured using the Quality of Life Inventory (Frisch, 1992), a 16-item instrument employing a Likert-type response format and producing a weighted summative score across multiple facets of life satisfaction (e.g., standard of living, work, home, and relationships with relatives). The psychometric qualities for this measure are strong, with high test-retest and internal consistency reliability and strong validity coefficients for clinical and community samples, including veterans.

The Sheehan Disability Scale (SDS) is used to assess disability in work or school, family life, and social life (Sheehan, 1983). The participant rates the extent to which he or she experiences problems in each of these domains due to his or her symptoms on a 10-point visual analog scale. The three items may be summed into a single measure of global functional impairment that ranges from 0 (unimpaired) to 30 (highly impaired) (Sayer, Carlson, & Schnurr, manuscript). The scale has been validated on participants with affective disorders in a primary care setting (Leon, 1997 cited in Leon et al. 1999). It has also shown to be validated in a study involving patients with bipolar disorder (Arbuckle et al. 2006).

To assess malingering, participants will be completing the M-FAST (Miller, 1995). The M-FAST is a brief 25-item screening interview for individuals ages 18 years and older that provides preliminary information regarding the probability that he/she is feigning psychiatric illness. Most malingering and symptom validity instruments assess malingered cognitive and/or neuropsychological deficits. The M-FAST focuses exclusively on malingered psychiatric

illness including Depression, Schizophrenia, Hypervigilance, Personality Disorder, Nightmares, and a Suggestibility Interview.

The HPQ Relative Absenteeism Survey assesses the participant's attendance at work. It is derived from VA Cooperative Studies #566.

Functional Impairment will be assessed with the Psychosocial Functioning Inventory (P.F.I) designed in Phase I by using the information from the focus groups.

The Major Depressive Disorder module of the Mini International Neuropsychiatric Interview (MINI) is a short diagnostic structured interview designed to explore the presence of diagnostic criteria for Major Depressive Disorder (Lecrubier et al., 1998). The reliability, sensitivity and specificity were explored in a clinical population versus the CIDI (Lecrubier et al, 1997) and versus the SCID (Sheehan et al, 1997). In both cases the performance of the MINI was equivalent to that of the longer interview.

The Psychopathic Personality Inventory-Short Form (PPI-SF) is a 56-item self-report measure of both global psychopathy and the component traits of psychopathy.

Analytic procedures and interpretation. Classical test theory-oriented item characteristics will be computed (Aiken, 1994; Anastasi, 1982; Nunnally, 1978). For the items that are accompanied by multipoint Likert-type response formats ("strongly disagree" to "strongly agree"), frequency distributions and descriptive statistics first will be calculated. Items having a symmetric response distribution will be preferred over items having a skewed distribution. Finally, corrected item-total correlations, the correlations of each item's score with the sum of scores on all other items measuring that construct, will be computed, where appropriate to the construct. Item-total correlations are indices of an item's ability to distinguish among those high and low on the attribute and thus are indicative of the item's precision of measurement. Items with higher item-total correlations typically take precedence over those with lower item-total correlations. Using judgments of content validity, distributional and endorsement patterns and statistics, and item-total correlations, a final set of items for each construct will be chosen. Estimates of internal consistency reliability (Cronbach's alpha) will then be calculated. At the close of Phase 2, the product will be a refined inventory of PTSD-related functional impairment.

### **Specific Objective 3/Phase 3: Inventory Cross-Validation**

Phase 3 involves the collection of data from a second-stage test sample to support cross validation and criterion-related validity. Refined measures of the previously identified dimensions of PTSD-related functional impairment, along with measures of PTSD and other health outcomes will be administered to another veteran sample.

Data collection and additional instrumentation. In total, three hundred consenting veterans at the Boston VA Healthcare System and Bedford VAMC will participate in Phase 3. Eighty-five percent of participants will be male and 15% will be female. Participants will be administered the refined and shortened version of the inventory as well as scales intended to assess physical and mental health, health-related quality of life, functional impairment, and social desirability. Data collection is expected to last 2 hours for each participant. In order to assess test-reliability of the IPF, we will ask 100 participants of the Phase 3 veteran sample to return to the testing site four weeks after their initial visit to re-administer the entire survey packet.

For Phase III, in place of the CAPS, we will use the PTSD Checklist (PCL; Weathers et al., 1993) to assess PTSD symptoms. The PCL has good sensitivity and specificity and is positively correlated with standard measures of PTSD. We will also be using the PCL-5 (Weathers et al, personal communication, 2010) a newly developed PTSD checklist designed to assess the anticipated PTSD criteria in the DSM-V. We will also use the Life Events Checklist (Gray et al., 2004) to assess for instances of exposure to traumatic life events.

Historical/demographic information will be obtained during the interview as well as through chart review concerning the following variables: age, race, socioeconomic status, current annual income, employment, education, and marital status. In addition, self-reported data regarding illegal behaviors, suicide attempts, psychiatric hospitalizations, prescription medications, interpersonal conflicts, and service connection disability status will be collected. We will also obtain pertinent information from veterans' military history, including declaration of combat theatre duty and military occupational specialty.

Functional impairment will be assessed using several established measures. The Medical Outcomes Study 36-item Short Form Health Survey-veterans version (SF-36V; Ware & Sherbourne, 1992) provides eight domain scores indexing physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role, and mental health; in addition, summary physical and mental health scores may be computed. The reliability and validity of the SF-36 are well documented (e.g., McHorney, Ware, & Raczek, 1993).

The World Health Organization Disability Assessment Schedule II (WHODAS II) is a measure of functional disability which assesses a wide-range of impairment and disability dimensions using multi-item scales including pain, concentration, understanding and communicating, mobility, self care, family burden, getting along with others, household and work activities and work loss, and participation in society. All of the six domains on the WHODAS-II have factor loadings of at least 0.7 and each individual item correlates positively (ranging from 0.48 to 0.93) to its respective domain. The WHODAS-II is used across countries and population groups and has high test-retest reliability ( $\kappa$  .65-.78) and correlates with measures of quality of life such as the SF-12 and SF-36, the London Handicap Scale, and the WHOQOL. The WHODAS-II is becoming widely used in investigations of functional disability across wide-ranging populations, including the physically ill (i.e. rheumatology, pulmonary, primary care cohorts) and severely mentally ill (schizophrenic cohorts). Although patients with PTSD and related anxiety disorders were included in the original multi-center development of the instrument, the WHODAS-II has not been employed specifically with trauma survivors. For this study, we will use the 36-item self-report version of this scale. Scores for each of the 6 individual domains, as well as an overall score of global functional disability can be calculated.

Functional Impairment will be assessed with the Psychosocial Functioning Inventory (P.F.I) designed in Phase I and II by using the information from focus groups and psychometric testing during Phase II. A brief report format to assess global aspects of functioning and a longer format to assess more specific aspects of functional impairment will be used.

General life satisfaction, defined as "an individual's evaluation of the degree to which his or her most important needs, goals, and wishes have been fulfilled" (Frisch, Cornell, Villanueva, & Retzlaff, 1992, p. 93) will be measured using the Quality of Life Inventory (Frisch, 1992), a 17-item instrument employing a Likert-type response format and producing a weighted summative score across multiple facets of life satisfaction (e.g., standard of living, work, home, and relationships with relatives). The psychometric qualities for this measure are strong, with high test-retest and internal consistency reliability and strong validity coefficients for clinical and community samples, including veterans.

The Sheehan Disability Scale (SDS) is used to assess disability in work or school, family life, and social life (Sheehan, 1983). The participant rates the extent to which he or she experiences problems in each of these domains due to his or her symptoms on a 10-point visual analog scale. The three items may be summed into a single measure of global functional impairment that ranges from 0 (unimpaired) to 30 (highly impaired) (Sayer, Carlson, & Schnurr, manuscript). The scale has been validated on participants with affective disorders in a primary care setting (Leon, 1997 cited in Leon et al. 1999). It has also shown to be validated in a study involving patients with bipolar disorder (Arbuckle et al. 2006).

Delusional Ideation will be assessed using the 21-item Peters et al. Delusions Inventory PDI; Peters et al., 2004). This inventory incorporates multidimensional items to measure delusions including measures of distress, preoccupation, and conviction. The psychometric qualities for this measure are strong, with high internal consistency reliability ( $\alpha = 0.82$ ) and strong validity coefficients for clinical and community samples.

Severity of somatic symptoms will be assessed using the full version of the Patient Health Questionnaire (PHQ; Spitzer et al., 1999). The PHQ is a self-report version of the PRIME-MD and has been validated in many recent studies (Spitzer et al., 1999; Spitzer et al., 2000). The PHQ is a 58 item questionnaire which assesses eight somatic diagnoses divided into threshold and sub threshold disorders.

Socially desirable responding will be assessed using the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984). The BIDR is comprised of 40 items incorporating both the Self-Deception Questionnaire (SDQ) and the Other-Deception Questionnaire (ODQ) which each have 20 Likert-type items. The SDQ items are statements judged to be universally true but psychologically threatening and the ODQ items are about socially desirable but statistically infrequent behaviors. The convergent and divergent validity of the scales have been supported in many studies (Gur & Sackeim, 1979; Paulhus, 1982; Sackeim & Gur, 1978, 1979).

Personality traits will be assessed using the brief form of the Multidimensional Personality Questionnaire (MPQ-BF; Patrick, Curtin & Tellegen, 2002). The MPQ-BF is a 155 item and consists of 11 primary scales with 12 items each. The



internal consistency of the scale is good with alpha coefficients for the 12-item primary trait scales ranging from .75 to .84 and all scales are highly correlated with the original MPQ primary trait scales.

In addition, we will use the Psychopathic Personality Inventory- Short Version (PPI-SV; Lilienfeld & Andrews, 1996). The PPI-SF is a 56-item inventory designed to assess the major personality traits of psychopathy in noncriminal populations. The PPI-SV is based directly on 187-item PPI which has shown good reliability and usefulness as a self-report measure assessing psychopathic personality (Lilienfeld & Andrews, 1996).

Malingering will be assessed using the Structured Inventory of Malingering Symptomatology (SIMS; Smith, 1993). The SIMS is a 75-item, true/false screening instrument that assesses for both malingered psychopathology and neuropsychological symptoms. The SIMS provides five scale domains as well as an overall score for probable malingering (i.e., Total score): Psychosis, Neurologic Impairment, Amnesic Disorders, Low Intelligence, Affective Disorders and a raw score is compared to empirically derived and validated clinical cutoff scores indicative of likely malingering to assess each subject.

DRRI (combat experiences and post battle experiences) combat severity and experiences following deployment will be assessed using a modified version of the Deployment Risk and Resilience Inventory (DRRI; King, King, & Vogt, 2003) Combat Experiences and Post Battle Experiences modules. The DRRI is a group of self-report scales used to assess risk and resilience factors linked with military deployments. Evidence is available for the internal consistency, reliability, test-retest reliability, discriminant validity, discriminative validity, and criterion-related validity of DRRI scales (King, King, Vogt, Knight, & Samper, 2006). The Combat Experiences and Post Battle Experiences modules of the DRRI yield continuous scores with higher scores indicating greater combat intensity or post battle troubles.

Nicotine use will be assessed using the Fagerstorm Test for Nicotine Dependence (Heatherton et al., 2001), a 6-item screen for nicotine dependence.

Reckless Driving Behaviors will be assessed using the Kuhn et al., 2010 6-item measure designed to assess aggressive and unsafe driving among male veterans.

Traumatic Brain Injury will be assessed using 4 items from the Post-Deployment Health Assessment DD Form 2796, Jan 2008.

Suicidal Ideation will be assessed using the Beck Scale for Suicide Ideation-Self Report version (BSS; Beck et al., 1993). The BSS is composed of 19 items, with scores ranging from 0- 38 points. The correlations between the self-reported and clinically rated versions for both inpatients and outpatients were  $>.90$ , which suggests strong concurrent validity. The Cronbach coefficient alphas were also in the .90s and indicated high internal consistency (Beck et al., 1988). There is no empirical evidence to support the use of a specific cut off with the BSS, but increasing scores do reflect increases in suicidal risk. Any positive response to any BSS item may reflect the presence of suicidal intention and should be investigated by a clinician (Beck & Steer, 1993). Thus, in this study any positive response to any BSS item will be followed up immediately with the interview format of the Mini-International Neuropsychiatric Interview (M.I.N.I.) suicide module.

Safety A study clinician will administer and score the M.I.N.I. suicide module prior to administering the remaining study measures. Regardless of score on the MINI suicide module, for any participant thought to be at imminent risk, the assessor will contact local VA facility and inform the mental health provider on call or suicide prevention coordinator, as appropriate. The assessor will administer the further risk assessment measure as necessary to gain additional information regarding risk and protective factors and suicidal ideation risk level. Procedures for the MINI results are:

**Low suicide risk** (0-8 points on MINI suicide module):

- The assessor will:
  - 1) Perform a “check out” with the participant at the conclusion of the interview.
  - 2) Provide the participant with the VA Suicide Hotline number (1-800-273-TALK), number for local VA.

**Moderate suicide risk** (9-16 points on MINI suicide module)

The assessor will:

- 1) Provide the participant with the VA Suicide Hotline number (1-800-273-TALK)

- 2) Provide the participant with local VA/DOD contact information
- 3) Offer to provide local treatment referrals within the next 24 hours
- 4) Offer to contact participant's mental health provider (e.g., therapist, psychiatrist)
- 5) Take steps to reduce participant risk:
  - Ask participant to remove weapons/medications from his/her access
- 4) Help participant identify important protective factors:
  - Religious beliefs
  - Dependent children
  - Belief in treatment
  - Future oriented goals
  - Social supports
- The assessor will follow judgment in whether to continue with the rest of the study measures.

**High suicide risk without imminent risk** ( $\geq 17$  points on MINI suicide module)

The assessor will:

- 1) Provide VA Suicide Hotline number (1-800-273-TALK)
- 2) Offer to escort participant to the Urgent Care department for further evaluation.
- 3) Offer to provide the participant with information on VA/DOD facilities and/or contact the participant's treating clinician, within 24 hours. If the participant identifies barriers to using VA/DOD facilities, the participant will be provided with local/regional resources, including treatment referrals.
- 4) Offer to contact the VA suicide prevention coordinator or mental health provider on call, as appropriate, in closest proximity to the participant.
- 5) Follow up with the participant within 24 hours.
- 6) Offer to mail letter to participant with referral information, including VA Suicide hotline phone number and VA/DOD phone number.

**High suicide risk with imminent risk** ( $\geq 17$  points on the MINI suicide module)

The assessor will:

- 1) Further assess current SI (plan, means, access, intent)
- 2) Provide VA Suicide Hotline number (1-800-273-TALK)
- 3) Escort participant to the Urgent Care department for further evaluation. A code green can be initiated by the provider for assistance with the participant in accordance with code green policy PCM-116A-001-MH,
- 4) Contact the VA or DoD suicide prevention coordinator or mental health provider on call, as appropriate, in closest proximity to the participant.
- 5) If the VA/DoD is unresponsive, contact the local law enforcement and inform them of the participant's emergent psychiatric needs.
- 6) Follow up with the participant within 24 hours.
- 7) Follow up with the VA/DoD or local law enforcement within 24 hours to determine the disposition of the case.
  - DO NOT continue current protocol (i.e., do not administer remaining study measures).
  - Must follow-up with the participant's treatment provider to confirm that participant is stable before rescheduling study participation.

An important aspect of the study is that it is as inclusive as possible of the entire range of PTSD experiences; thus, it includes high-risk cases when possible, although data on PCL may remain unavailable until high-risk cases are determined to be stable by contact with the treatment provider.

Analytic procedures and interpretation. Data from this test validation phase will offer a second opportunity to compute internal consistency reliability (Cronbach's alpha) for the measures of functional impairment. It is important to re-estimate and reexamine internal consistency on a fresh sample since the estimates derived on the same sample from which the items were selected (Phase 2) take advantage of sample-specific covariation and may be somewhat

inflated. It is also critical to cross-validate the initial findings with an independent sample in order to ensure that the items which comprise the developed functional impairment scale are optimal.

#### 12. Description of Protocol Drugs and Devices.

N/A

#### 13. Laboratory Evaluations.

N/A

#### 14. Sample Size Justification.

For Phase 2's test development sample, we have selected a target size of 300 individuals. The reason lies with well-recognized and prescribed rules for the application of classical test theory methodologies. That is, according to Nunnally (1978), among others, item analyses should proceed using a 10-to-1 respondents-to-items ratio (per construct). This ratio is considered sufficient to achieve stable estimates of item characteristics, especially item-total correlations and internal consistency reliability coefficients. With an initial draft of the inventory containing approximately 30 items per construct, we arrive at the estimate of 300 respondents (maximum number of items x 10;  $30 \times 10 = 300$ ).

With a proposed sample size of 300 in Phase 2, the probability of a Type 1 error (alpha) set at two-tailed .05, and an estimated small effect size (using Cohen & Cohen's recommended  $f = .10$ ), power approximates .84 for proposed ANOVAs. With alpha = .05, an estimated small to medium effect size ( $r = .20$ ) based on preliminary results, power approximates .97 for proposed Phase 2 correlation analyses. With alpha = .05, an estimated medium effect size ( $f^2 = .15$ ) power is quite strong, exceeding .95 for regression analyses in Phase 2. Phase 3 will use data from a sample size of 2,100 to test correlation and regression hypotheses. As such, power estimates are even greater for these analyses. Thus, we feel confident that the number of cases for both Phase 2 and Phase 3 is appropriate.

#### 15. Data Analysis.

1. We hypothesize that current PTSD will be related to greater impairment on the newly developed scale. Specifically, we expect that (a) individuals with current PTSD will have higher impairment scores relative to individuals with past PTSD or no PTSD; (b) current PTSD symptom severity will be positively correlated with impairment scores; and (c) these relationships will be maintained even when adjusted for a measure of malingering. Analysis of Variance (ANOVA and ANCOVA), Pearson product-moment and partial correlations will be used to evaluate these hypotheses.

2. The new scale will be related to existing scales used to measure impairment but will be more sensitive than these existing scales to PTSD-related variability. Specifically, we expect that impairment scores on our newly developed measure will be (a) correlated with existing measures of functional impairment and health-related quality of life; and (b) more highly correlated than these existing measures with current PTSD diagnosis and symptom severity. Pearson product moment and point-biserial correlations will be used to examine these hypotheses.

3. PTSD symptom clusters (i.e., reexperiencing, avoidance and numbing, hyperarousal) will be differentially related to the dimensions of functional impairment identified on the new scale. Based on previous work, we expect that numbing symptoms will be uniquely related to functional impairment. However, because we expect our newly developed scale to be superior to the existing measures on which the prior work was based, it is possible that we will identify a different pattern of relationships between PTSD symptoms and domains of impairment. Standard multiple regression will be used to test this hypothesis.

4. Regarding the exploratory analyses examining whether the relation between PTSD and impairment on the new scale are consistent across genders, ethnic groups, and age, we will use ANOVA to examine gender and ethnic differences and use standard multiple regression to examine age differences.

5. In order to assess the test-retest reliability properties of the IPF subscales, we will conduct Pearson correlations on the subscale scores assessed at Time 1 and four weeks later at Time 2 based on data collected from an anticipated sample of 100 participants during Phase 3.

#### 16. Data Management.

Measures used for data collection are described under #12 (study procedures). Copies of all data collection forms are attached.

All paper measures and consent forms will be secured behind alarmed and locked doors, in locked cages, and the electronic data is secured in password protected systems located on the Boston, Bedford, and Pacific Islands VA campuses. Personally identifiable information will be stored on a separate server accessible only to research team members. In addition, this file will be password protected so only the PI and the study staff will have access to personally identifiable information. Only team members who need the information to perform a specific job (for example, a project manager or database administrator) will be granted access to personally identifiable information by the PI. Finally, the servers that we will store personally identifiable information on are kept in a secure, locked environment in a separate location from the portal and website servers at the Boston VA campus

Data will be transcribed onto a statistical software package and will use only Study ID instead of personally identifiable information.

Personal identifiers will be stored in a password protected list that links the identifiers and the study numbers. This list is saved on a server in a different part of the VA building under the strict security measures that require a user name and password to access the list and will be accessible only to research team members. Only team members who need the information to perform a specific job (for example, a project manager or database administrator) will be granted access to personally identifiable information by the primary investigator as they need it to complete specific tasks. The list linking data to personal identifiers will be destroyed at the completion of data collection and transcription.

All paper measures will be kept indefinitely after the study is closed. Approved study staff may use the research records for future studies. Electronic files will undergo a shredding process that will permanently delete the file, such as Simple File Shredded 3.2 by scar5 Software. The PI and his study staff as well as the overseeing IRBs from the VA Boston Healthcare System and the Bedford VA Medical Center as well as specific governmental overseeing bodies may access study records. Beyond these bodies, access to identifiable data will not be granted to any other entity. As noted above, all data will be kept in a secure, password protected data environment accessible only to research team members granted access by the PI. Data will be collected using state-of-the-art encryption and secured behind alarmed and locked doors, in locked cages in password protected systems located on the Boston VA campus. The protected systems have built in HIPAA and 21 CFR 11 technical compliance required by the FDA for electronic management of subject data. A certificate of confidentiality will be obtained to further protect participants. Representatives of the USAMRMC are eligible to review research records.

At the end of participation, all volunteers will be debriefed individually on the purpose of the study. During the debriefing, participants will be told that, if interested, they may receive feedback from their testing information by completing the section regarding release of information of their testing information to their VA mental health care provider, which is provided in the informed consent form.

#### 17. Risks/Benefits Assessment.

There are no known physical risks to participating in this study. The anticipated discomforts associated with participating in the portion of the study are related to the discomfort of reviewing materials related to mental health symptoms and occupational and social problems in one's life. Participants will be informed about these risks and told that they may withdraw from the study at any time and may refuse to complete any treatment procedures they find too uncomfortable. They will also be provided with Drs. Marx, Drebing, or Spira's contact information if they would like to speak to a clinical psychologist and will have the option of being referred to a mental health specialist.

To protect against breach of confidentiality, we will take every precaution to protect participants' information. All paper measures and consent forms will be secured behind alarmed and locked doors, in locked cages, and the electronic data is secured in password protected systems located in the VA campuses. Personally identifiable information will be stored on a separate server accessible only to research team members. In addition, this file will be password protected so only the PI and the study staff will have access to personally identifiable information. Only team members who need the information to perform a specific job (for example, a project manager or database administrator) will be granted access to personally identifiable information by the PI. Finally, the servers that we will store personally identifiable information on are kept in a secure, locked environment in a separate location from the portal and website servers at the Boston VA campus. A certificate of confidentiality has been obtained to further protect participants.

Although there are no direct benefits to the individual for participating in this research, the proposed project may benefit society. Specifically, developing a measure of PTSD-related functional impairment may have enormous value from a health care perspective in terms of identifying individuals with the disorder and for promoting more efficient allocation of resources and efforts towards those who are in most need. Perhaps the biggest impetus to develop a multidimensional PTSD-related functional impairment scale is to address the need to document the full effects of this disorder on sense of self, role functioning, interpersonal relationships, employment and financial status and living conditions as well as to demonstrate the impact of interventions on these areas.

#### 18. Study Personnel.

**Brian P. Marx, Ph.D., Principal Investigator**, is an Associate Professor of Psychiatry at Boston University School of Medicine (BU) and a Staff Psychologist at the VA Boston Healthcare System (BHS). As PI, Dr. Marx will be responsible for the overall administration and direction of the project. He will share this responsibility with Dr. Schnurr, the Co-I. Dr. Marx will oversee all participant recruitment and data collection that takes place at the VA Boston Healthcare System. He will be responsible of all oversight of statistical analyses. He will share primary responsibility with Dr. Schnurr for interpretations and decisions regarding publication of data resulting from this project.

**James L. Spira, Ph.D., Co-Investigator**, director of the Pacific Island Division of the National Center of PTSD, will oversee all participant recruitment and data collection that takes place at the VA Pacific Islands Healthcare System.

**Paula P. Schnurr, Ph.D., Co-Investigator**, is a Professor at Dartmouth Medical School (DMS) and the Deputy Director of the National Center for PTSD, Executive Division at the White River Junction VA Medical Center. As Co-I, Dr. Schnurr will co-manage and oversee the direction of the project. She will share in primary responsibility in preparation of resulting grant proposals, professional publications, and manuscripts.

**Terence M. Keane, Ph.D., Co-Investigator**, is the Professor and Vice Chair for Research of the Division of Psychiatry BU and the Executive Director of the National Center for PTSD, Behavioral Science Division. Dr. Keane is a well-known scholar with a particular expertise in the assessment of PTSD. He will offer his expertise by attending research meetings and providing consultation on subsequent publications and grant applications.

**Charles W. Hoge, M.D., Co-Investigator**, is the Director of the Psychiatry and Neuroscience Division at Walter Reed Army Institute of Research. He shares primary responsibility with Dr. Bliese in the oversight of participant recruitment and data collection with active duty military personnel.

**Denise Sloan, Ph.D., Co-Investigator**, is an Associate Professor of Psychiatry at Boston University School of Medicine (BU) and a Staff Psychologist at the VA Boston Healthcare System (BHS). She will offer her expertise by attending research meetings and providing consultation on subsequent publications and grant applications.

**Paul D. Bliese, Ph.D., Co-Investigator**, is the Chief of Military Psychiatry at the Walter Reed Army Institute of Research. He shares primary responsibility with Dr. Hoge in the oversight of participant recruitment and data collection with active duty military personnel.

**Carol Lunney, M.S., Consultant**, possesses extensive research experience in health functioning and disability. She will consult on the design and methods of the study as well as run the day to day data recruitment and collection efforts in the active duty military participants.

**Frank Weathers, Ph.D., Consultant**, is an expert in the creation and validation of instruments used to assess PTSD, particularly within the veteran population. He will conduct the statistical analyses following Phase 2 to create the preliminary Functional Impairment Scale. Additionally, he will conduct the analyses that validate the use of the scale based on the results from Phase 3.

**Paola Rodriguez, Ph.D.**, will function as the study coordinator and will be responsible for assisting in all the administrative aspects of this study (e.g., entering and maintaining the dataset) and assisting in data analyses and preparation of resulting grant proposals, professional presentations, and manuscripts.

**Darren Holowka, PhD and Michelle Bovin, M.A.**, doctoral candidate, will also be conducting the clinical interviews. They will also assist in data analysis as well as preparation of findings in professional presentations and manuscripts.

**Dawne Vogt, Ph.D., Consultant**, is an expert in the creating and validation of instruments used to assess risk and resilience factors in PTSD, particularly within the female veteran population.

**Research Technicians**, will be assisting in administrative aspects of the study, including preparing materials for IRB approval, subject recruitment and conducting informed consent procedures.

None of the key personnel have any conflicts of interest.

#### 19. Roles and Responsibilities of Medical Monitor.

N/A

#### 20. Withdrawal from Protocol.

Volunteers may discontinue participation in the research at any time without penalty or loss of benefits to which the volunteer is entitled.

#### 21. Modifications to the Protocol.

Given that the study involves clinical interviewing and completion of self-report questionnaires by participants, the risks of participation are minimal. We do not anticipate any modifications, amended or terminated before completion. However, in the event that the protocol, consent form and/or questionnaires are changed, we will submit these changes to the local IRB for review and approval. Any changes will also be submitted to the HRPO for approval prior to implementation.

#### 22. Protocol Deviations.

Again, the risks associated with participation in the study are minimal. As such, we do not anticipate any necessary deviations from the protocol before completion. Of course, in the event that deviations occur, such changes will be promptly reported to the HRPO.

#### 23. Reporting of Serious Adverse Events and Unanticipated Problems.

Definitions:

A serious adverse event is any experience that results in any of the following outcomes: death, a life-threatening experience, inpatient hospitalization or prolongation of existing hospitalization, a persistent or significant disability/incapacity, or a congenital anomaly/birth defect. Important medical events that may not result in death, be life-threatening or require hospitalization may be considered a serious adverse event when, based upon appropriate medical judgment, they may jeopardize the patient or subject and may require medical or surgical intervention to prevent one of the outcomes listed in this definition.

An unexpected adverse event is any adverse experience associated with the study for which the specificity or severity is not consistent with the current investigator brochure, or, if an investigator brochure is not required or available, the specificity or severity of which is not consistent with the risk information described in the general investigational plan or elsewhere in the current application, as amended. "Unexpected" refers to an adverse drug experience that has not been previously observed.

Given that the study involves clinical interviewing and completion of self-report questionnaires by participants, the risks of participation are minimal and the likelihood of an adverse event, serious or otherwise, is extremely low. However, participants will be made aware of what to expect during study procedures prior to their participation, and will be informed in the consent form that the procedures may potentially be associated with moderate transient distress associated with discussing traumatic experiences and associated difficulties. Participants will also be informed that they may discontinue their participation at any time. At the end of participation, a staff person will have the participant rate their present feelings of distress on 1-9 scale. Anyone scoring above 5 will be asked to discuss their reactions with the staff person and, if necessary, participate in a 20-minute relaxation procedure. These relaxation procedures will continue until the participant reports a decrease in his/her distress. At the conclusion of the session, debriefing will consist of: (a) a detailed assessment of any reactions or concerns that participants' may have experienced during the study procedures; (b) full disclosure of the purposes of the study; and (c) a careful assessment of present mood prior to participants' departure. No participant will be allowed to leave the research site if they are in emotional distress. If anyone indicates unhappiness or distress that is directly due to being a research participant, he will be asked to return to the laboratory for an additional debriefing session.

Doctoral level psychologists will be the primary contact with participants during their participation in this study, and licensed psychologists will be available at the research site at all times in the event that a participant is emotionally distressed. In addition, appropriate treatment referrals for PTSD and other psychopathology will be made for study participants, and participants will be made aware of resources available to them.

Participants will be informed that if suicidal (or homicidal intentions) are disclosed, confidentiality may be broken in order for protective measures to be taken. Although there will be no questions asked in the assessments regarding children, if a participant were to disclose child or elder abuse, appropriate agencies would be contacted and participants will be so informed in the consent process (and consent form).

In the case of unanticipated problems and serious adverse events we will consult with the local IRB who makes the final determination as to whether or not a problem or adverse event is an unanticipated problem involving risks to subjects or others and then determines what action is required. The point of contact at the Boston VA IRB is Gary Park, who can be reached at 857-364-5674. The point of contact at the Bedford VA IRB is Denise Jones, who can be reached at 781-687-2839.

#### 24. Continuing Review and Final Report.

A copy of the approved continuing review report and the local IRB approval notification will be submitted to the HRPO as soon as these documents become available. A copy of the approved final study report and local IRB approval notification will be submitted to the HRPO as soon as these documents become available.

#### 25. USAMRMC Volunteer Registry Database.

N/A. The risks from participating in this study are minimal.

#### 26. Reporting Requirements and Responsibilities.

The following are reporting requirements and responsibilities of the Principal Investigator to the United States Army Medical Research and Materiel Command's (USAMRMC) Office of Research Protections (ORP), Human Research Protection Office (HRPO).

(1) The protocol will be conducted in accordance with the protocol submitted to and approved by the USAMRMC ORP HRPO and will not be initiated until written notification of approval of the research project is issued by the USAMRMC ORP HRPO.

(2) All unanticipated problems involving risk to subjects or others, serious adverse events related to participation in the study and subject deaths related to participation in the study will be promptly reported by phone (301-619-2165), by email (hsrrb@det.amedd.army.mil), or by facsimile (301-619-7803) to the USAMRMC, Office of Research Protections, Human Research Protection Office. A complete written report will follow the initial notification. In addition to the methods above, the complete report will be sent to the U.S. Army Medical Research and Materiel Command, ATTN: MCMR-ZB-PH, 504 Scott Street, Fort Detrick, Maryland 21702-5012.

(3) The knowledge of any pending compliance inspection/visit by the FDA, OHRP, or other government agency concerning clinical investigation or research, the issuance of Inspection Reports, FDA Form 483, warning letters or actions taken by any Regulatory Agencies including legal or medical actions and any instances of serious or continuing noncompliance with the regulations or requirements will be reported immediately to USAMRMC ORP HRPO.

## 27. Focus group data.

To facilitate the coding and analysis of data, all sessions will be audiotaped with the consent of participants. We will use a tape-based analytic strategy that involves developing an abridged transcript of the relevant and useful portions of the discussion (Krueger, 1998b). The relevance of the discussion will be determined by whether it contains a reference to any of our previously identified PTSD-related impairment themes or by whether it introduced an additional theme that we had not previously considered. To clarify: Three individuals, two of whom have been physically present during the focus groups, will listen to an audiotape of each focus group. This approach is consistent with the recommendation that at least one person who was physically present in the room when the focus group was conducted and who is familiar with the context of the discussion participate in data analysis (Krueger, 1994). Coders will be provided with a list of themes and definitions that they will be told may or may not have been discussed during the focus group. Coders will listen to audiotapes twice. First, they simply listened to become familiar with the flow of the conversation and the topics that were raised. On the second review, coders will stop the audiotape each time they hear a participant mention an identified a PTSD-related impairment theme and to record verbatim the sentence or sentences in which it was discussed. Coders will also be instructed to stop the audiotape if they hear a participant describe any other PTSD-related impairment theme that was not included among our previously identified list and to record this sentence or sentences as well. Finally, coders will note any novel terminology participants use to describe their experiences. Next, the coders will meet to discuss their review of the tapes. To the extent that coders agree with one another regarding whether quotes were examples of identified themes (i.e., constructs), quotes relevant to each of the key constructs will be compiled. Coders also will introduce additional constructs for consideration in these meetings. As recommended by focus group experts (Krueger, 1994), newly nominated and ongoing refinements of conceptualizations will be incorporated in the list of PTSD-related impairments and definitions used by coders throughout the process. The information in the final compilations will then be used to refine definitions of constructs as needed, to identify additional constructs, and to inform item development.



**Appendix B**

**Inventory of Psychosocial Functioning (IPF)**

**INSTRUCTIONS: Answer the questions at the beginning of each section to determine which sections apply to you. Then, within the sections that apply to you, read each statement and rate how often you have acted like that over the past 30 days. Circle only one number for each statement.**

**Romantic Relationship with Spouse or Partner**

Have you been in a romantic relationship with a spouse or partner in the past 30 days?  Yes  No

**If you have not been in a romantic relationship with a spouse or partner during the past 30 days skip this section** and continue with the next section. Otherwise, please answer the following questions.

**Over the past 30 days...**

	Never		Sometimes			Always	
1. When necessary, I cooperated on tasks with my spouse or partner.	0	1	2	3	4	5	6
2. I shared household chores or duties with my spouse or partner.	0	1	2	3	4	5	6
3. I had trouble sharing thoughts or feelings with my spouse or partner.	0	1	2	3	4	5	6
4. I showed interest in my spouse or partner's activities.	0	1	2	3	4	5	6
5. I had trouble settling arguments or disagreements with my spouse or partner.	0	1	2	3	4	5	6
6. I was patient with my spouse or partner.	0	1	2	3	4	5	6
7. I had trouble giving emotional support to my spouse or partner.	0	1	2	3	4	5	6
8. I was affectionate with my spouse or partner.	0	1	2	3	4	5	6
9. My partner or spouse and I did activities that brought us closer together.	0	1	2	3	4	5	6
10. I was interested in sexual activity with my spouse or partner.	0	1	2	3	4	5	6
11. I had trouble becoming sexually aroused with my spouse or partner.	0	1	2	3	4	5	6

**Family**

**In this section, family refers to all relatives other than your spouse/partner or children (for example, parents, brothers, sisters, grandparents, etc). Do not answer these questions in reference to your spouse/partner or children.**

Have you been in contact with family members (parents, brothers, sisters, grandparents, etc.) in the past 30 days?  Yes  No

**If you have not been in contact with family during the past 30 days skip this section** and continue with the next section. Otherwise, please answer the following questions.

**Over the past 30 days...**

	Never		Sometimes			Always	
12. I stayed in touch with family members (e.g. phone calls, e-mails, texts).	0	1	2	3	4	5	6
13. My family and I did activities that brought us closer together.	0	1	2	3	4	5	6
14. I was affectionate with my family members.	0	1	2	3	4	5	6
15. I had trouble being patient with family members.	0	1	2	3	4	5	6
16. I had trouble communicating thoughts or feelings to family members.	0	1	2	3	4	5	6
17. I had trouble giving emotional support to family members.	0	1	2	3	4	5	6
18. I had trouble settling arguments or disagreements with family members.	0	1	2	3	4	5	6

**Work (including home-based work)**

Have you worked (either for pay or as a volunteer) in the past 30 days?

Yes  No

**If you have not worked either for pay or as a volunteer during the past 30 days skip this section** and continue with the next section. Otherwise, please answer the following questions.

Over the past 30 days...

	Never		Sometimes			Always	
19. I had trouble showing up on time for work.	0	1	2	3	4	5	6
20. I reported for work when I was supposed to.	0	1	2	3	4	5	6
21. I got along well with others at work.	0	1	2	3	4	5	6
22. I stayed interested in my work.	0	1	2	3	4	5	6
23. I had trouble being patient with others at work.	0	1	2	3	4	5	6
24. I performed my job to the best of my ability.	0	1	2	3	4	5	6
25. I completed my work on time.	0	1	2	3	4	5	6
26. I had trouble settling arguments or disagreements with others at work.	0	1	2	3	4	5	6
27. I solved problems or challenges at work without much difficulty.	0	1	2	3	4	5	6
28. I maintained a reasonable balance between work and home.	0	1	2	3	4	5	6
29. I was able to perform my work duties without needing any extra help.	0	1	2	3	4	5	6
30. When necessary, I cooperated on work-related tasks with others.	0	1	2	3	4	5	6
31. I showed my skills and knowledge of the job.	0	1	2	3	4	5	6
32. I showed others at work that they could depend on me.	0	1	2	3	4	5	6
33. I came up with ideas and put them into action at work.	0	1	2	3	4	5	6
34. I took responsibility for my work.	0	1	2	3	4	5	6
35. I prioritized work-related tasks appropriately.	0	1	2	3	4	5	6
36. I worked hard every day.	0	1	2	3	4	5	6
37. I made sure that the work environment was pleasant for others.	0	1	2	3	4	5	6
38. I had trouble expressing my ideas, thoughts or feelings to others at work.	0	1	2	3	4	5	6
39. I had trouble being supportive of others at work.	0	1	2	3	4	5	6

**Friendships and Socializing**

Have you been in contact with friends in the past 30 days?  Yes  No

**If you have not been in contact with friends during the past 30 days skip this section** and continue with the next section. Otherwise, please answer the following questions.

Over the past 30 days...

	Never		Sometimes			Always	
40. I was willing to meet new people.	0	1	2	3	4	5	6
41. I stayed in touch with friends (returning phone calls, emails, visiting).	0	1	2	3	4	5	6
42. My friends and I did activities that brought us closer together.	0	1	2	3	4	5	6
43. I had trouble being patient with my friends.	0	1	2	3	4	5	6
44. I had trouble settling arguments or disagreements with my friends.	0	1	2	3	4	5	6
45. I had trouble sharing my thoughts or feelings with my friends.	0	1	2	3	4	5	6
46. I had trouble giving emotional support to my friends.	0	1	2	3	4	5	6
47. I showed affection for my friends.	0	1	2	3	4	5	6

## Parenting

**In this section, children refers to anyone for whom you had parenting responsibilities.**

Do you have children with whom you lived or had regular contact during the past 30 days?

Yes  No

**If you do not have children with whom you lived or had regular contact during the past 30 days skip this section** and continue with the next section. Otherwise, please answer the following questions.

**Over the past 30 days...**

	Never		Sometimes			Always	
48. My children were able to depend on me for whatever they needed.	0	1	2	3	4	5	6
49. I was interested in my children's activities.	0	1	2	3	4	5	6
50. I had trouble communicating with my children.	0	1	2	3	4	5	6
51. I was affectionate with my children.	0	1	2	3	4	5	6
52. I appropriately shared thoughts or feelings with my children.	0	1	2	3	4	5	6
53. My children and I did activities that brought us closer together.	0	1	2	3	4	5	6
54. I talked with, or taught, my children about important life issues.	0	1	2	3	4	5	6
55. I was a good role model for my children.	0	1	2	3	4	5	6
56. I had trouble giving emotional support to my children.	0	1	2	3	4	5	6
57. I had trouble settling conflicts or disagreements with my children.	0	1	2	3	4	5	6

## Education (including distance learning)

Have you been involved in a formal educational experience, either in or outside of the school setting, during the past 30 days?

Yes  No

**If you have not been involved in an educational experience during the past 30 days skip this section** and continue with the next section. Otherwise, please answer the following questions.

**Over the past 30 days...**

	Never		Sometimes			Always	
58. I attended classes regularly.	0	1	2	3	4	5	6
59. I stayed interested in my classes and schoolwork.	0	1	2	3	4	5	6
60. I arrived on time for my classes.	0	1	2	3	4	5	6
61. I had trouble being supportive of my classmates' achievements.	0	1	2	3	4	5	6
62. I turned in assignments late.	0	1	2	3	4	5	6
63. I solved problems and challenges in class without much difficulty.	0	1	2	3	4	5	6
64. I took responsibility for my schoolwork.	0	1	2	3	4	5	6
65. I was patient with my classmates and/or instructors.	0	1	2	3	4	5	6
66. I had trouble settling disagreements or arguments with instructors and/or classmates.	0	1	2	3	4	5	6
67. I had trouble remembering what the instructor said.	0	1	2	3	4	5	6
68. I could easily remember what I read.	0	1	2	3	4	5	6
69. I understood course material.	0	1	2	3	4	5	6
70. When necessary, I cooperated with classmates.	0	1	2	3	4	5	6
71. I got along with classmates and/or instructors.	0	1	2	3	4	5	6
72. I completed my schoolwork to the best of my ability.	0	1	2	3	4	5	6

**Self Care****Over the past 30 days...**

	Never		Sometimes			Always	
73. I had trouble keeping up with household chores (for example, cleaning, cooking, yard work, etc).	0	1	2	3	4	5	6
74. I maintained good personal hygiene and grooming (for example, showering, brushing teeth, etc).	0	1	2	3	4	5	6
75. I had trouble managing my medical care (for example, medications, doctors' appointments, physical therapy, etc).	0	1	2	3	4	5	6
76. I ate healthy and nutritious meals.	0	1	2	3	4	5	6
77. I had trouble keeping up with chores outside the house (shopping, appointments, other errands).	0	1	2	3	4	5	6
78. I had trouble managing my finances.	0	1	2	3	4	5	6
79. I was physically active (for example, walking, exercising, playing sports, gardening, etc).	0	1	2	3	4	5	6
80. I spent time doing activities or hobbies that were fun or relaxing.	0	1	2	3	4	5	6

**Appendix C**

**Brief Inventory of Psychosocial Functioning**

**B-IPF**

<i>Overall, in the past 30 days:</i>	<b>Not at All</b>		<b>Somewhat</b>			<b>Very Much</b>			<b>Not applicable</b>
1. I had trouble in my romantic relationship with my spouse or partner.	0	1	2	3	4	5	6	7	
2. I had trouble in my relationship with my children.	0	1	2	3	4	5	6	7	
3. I had trouble with my family relationships.	0	1	2	3	4	5	6	7	
4. I had trouble with my friendships and socializing.	0	1	2	3	4	5	6	7	
5. I had trouble at work.	0	1	2	3	4	5	6	7	
6. I had trouble with my training and education.	0	1	2	3	4	5	6	7	
7. I had trouble with day to day activities, such as doing household chores, running errands and managing my medical care.	0	1	2	3	4	5	6	7	

**Appendix D**

**List of groups and individuals requesting the IPF**



**Groups Requesting Copies of the IPF**

1. DoD funded study using rTMS to enhance the effects of Cognitive Processing Therapy

**Christina Bass**



2200 W. Mockingbird Lane  
Dallas, Texas 75235  
972.883.3216 Work  
CenterForBrainHealth.org

2. “Experiential avoidance, neurocognition, and functional outcomes in PTSD”

Eric Meyer, Ph.D.  
Principal Investigator in the Assessment Core  
Center of Excellence for Research on Returning War Veterans  
Assistant Professor, Texas A&M Health Sciences Center,  
College of Medicine

Central Texas Veterans Healthcare System  
4800 Memorial Drive (151C)  
Waco, TX 76711  
(254) 297-5166 (direct)  
(254) 297-3752 (fax)  
Eric.Meyer2@va.gov

3. IPF in assessment protocols for a PTSD Clinical Team (PCT)

Grant K. Oneal,  
CMOVAMC  
(his contact info wasn't included in email)

4. For C&P exams

Jordan Layne, Psy.D.  
Licensed Psychologist  
Austin Outpatient Clinic  
Central Texas Veterans Health Care System  
2901 Montopolis Dr.  
Austin, TX 78741  
(512) 389-6764

5. Proposal to Measure Functional Impairment

Kim Caramanica

Clinical Research Coordinator  
Traumatic Stress Studies Division  
James J. Peters VAMC  
Mount Sinai School of Medicine  
P: (718) 584-9000 x6587

F: (718) 741-4775

6. DOD-funded randomized controlled study will be on the effectiveness of mind-body skills like meditation, biofeedback, guided imagery on PTSD, sleep, anger, depression, etc.

Julie K. Staples, Ph.D. (collaborating with the New Orleans VA)  
Research Director  
Center for Mind-Body Medicine  
5225 Connecticut Ave., NW, Suite 414  
Washington, D.C. 20015  
(703) 861-2322

7. Rehab trial

Karen S. Quigley, PhD, Research Physiologist, Edith Nourse Rogers (Bedford) VA Memorial Hospital, Center for Health Quality, Outcomes & Economic Research (CHQOER), 200 Springs Road, Bldg 70, Rm. 132, Bedford, MA 01730; e-mail: karen.quigley@va.gov; Phone: 781-687-2273; fax: 781-687-2227 and Research Associate Professor and Co-Director, Interdisciplinary Affective Science Laboratory, 235 Nightingale Hall, Northeastern University, Boston, MA 02115-5000; e-mail: k.quigley@neu.edu; Voice: 617-373-3794; fax: 617-373-8714

8. IPF for Louisiana PTSD Clinic

LaTasha Steven  
(missing contact info)

9. Texarkana Community-Based Outpatient Clinic

Mark D Worthen PsyD  
Department of Veterans Affairs  
Texarkana Community-Based Outpatient Clinic  
910 Realtor Avenue, Texarkana, Arkansas 71854  
Office: 870-779-2732 | Cell: 435-647-6706  
Fax: 870-216-2583

10. Enhancing Equitable Study

Ted Speroff, Ph.D.  
Professor  
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GRECC/HSR 4th Floor  
VA Tennessee Valley Healthcare System  
1310 24th Avenue South  
Nashville, TN 37212

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FAX (615) 327-5381  
e-mail: ted.speroff@vanderbilt.edu  
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11. For use at the PTSD Specialty Clinic in White City, OR

Megan Mack (Hehn), Psy.D.

Clinical Psychologist  
PTSD/SUD Specialist  
VA SORCC  
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White City, OR 97503  
541-826-2111 x3581  
www.ptsd.va.gov

12. New study of spouses and other family members who have someone who is deployed

Linda O. Nichols, Ph.D.  
Health Services Research  
VA Medical Center (11H)  
Professor, Preventive and Internal Medicine  
University of Tennessee Health Science Center  
1030 Jefferson Avenue  
Memphis, TN 38104  
(901) 523-8990, ext. 5082  
(901) 577-7439 (fax)  
linda.nichols@va.gov

13. PTSD compensation and pension evals

Miles E McFall

14. MUSC - all clinic referrals will receive a CAPS, IFI, BDI-II, PCL-M, and MINI screen. We are constructing a database.

Ron Acierno PhD  
Strachan, Martha

15. Brief Inventory of Functioning to pilot it with an online military workshop for PTSD

Nigel E. Bush, Ph.D.  
Research Psychologist & Program Manager  
Research, Outcomes, Surveillance and Evaluation Division [ROSE] National Center for Telehealth and Technology [T2]

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16. Pamela Planthara, Psy.D

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Oakland, CA 94612  
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Office Telephone number: 510-587-3494  
Fax: 510-587-3420

17. Rachel Vanstone

Research Associate  
Department of Psychological Medicine  
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Heath Park

Cardiff CF14 4XM

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vanstoner1@cardiff.ac.uk

18. Project Valor (Keane, Marx et al)

19. Brief Intakes BSD/PTSD Clinic Boston VA

Karen Ryabchenko, PhD  
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Psychology (116B2)  
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Phone: (857)-364-4122

20. Susan McGlynn, Ph.D., ABPP  
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VA Boston Healthcare System  
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21. Telecaps Study (Marx et al)

22. DoD grant submission (Dr. Alina Suris, PI)

23. Jessica Link-Malcolm, Ph.D.  
Research Psychologist/Project Director  
Mental Health Service (116A)  
VA North Texas Health Care System, Dallas  
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24. Clinical trial for coordinating center for the INTRuST PTSD-TBI consortium

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La Jolla, CA 92037  
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26. Andrew Starzomski, PhD, R.Psych.(N.S.)  
Psychologist, East Coast Forensic Hospital Professional Practice Leader - Psychology (Mental Health)  
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**Appendix E**

**SPSS Scoring Syntax for the IPF**

\*\*\*\*\* Inventory of Psychosocial Functioning (IPF) 80-items\*\*\*\*\*

\*\*\*\*\*This syntax will score the IPF version 80-items

\*\*\* In order for this syntax to work correctly, IPF variables should be named consecutively IPF1, IPF2, etc...

\*\*\*\*\* Likert scale of responses must be on a 0-6 range, with 0 (never) and 6 (always)\*\*\*\*\*

\*\*\*\*\*If you have a previous version of the IPF, where scoring used to range from 1-7, please insert this syntax to recode all items so they're on a 0-6 scale (not 1 to 7)\*\*\*\*\*

RECODE IPF1 to IPF80 (1=0) (2=1) (3=2) (4=3) (5=4) (6=5) (7=6).

EXECUTE.

\*\*\*\*\*Otherwise, for everyone using the IPF-80 on a 0-6 likert scale START syntax here\*\*\*\*\*

\*\*\*\*\* Variables that indicate whether a domain is applicable (before each section) should be labelled IPFR, IPFF, IPFW, IPFFr, IPFP, IPFE.

MISSING VALUES IPF1 to IPF80 (88, 99).

\*\*\*\*\* recoding reverse-scored variables\*\*\*\*\*

```
RECODE IPF1 IPF2 IPF4 IPF6 IPF8 IPF9 IPF10 IPF12 IPF13 IPF14 IPF20 IPF21 IPF22 IPF24 IPF25 IPF27 IPF28 IPF29
IPF30 IPF31 IPF32
IPF33 IPF34 IPF35 IPF36 IPF37 IPF40 IPF41 IPF42 IPF47 IPF48 IPF49 IPF51 IPF52 IPF53 IPF54 IPF55 IPF58 IPF59 IPF60
IPF63 IPF64 IPF65
IPF68 IPF69 IPF70 IPF71 IPF72 IPF74 IPF76 IPF79 IPF80
(0=6) (1=5) (2=4) (3=5) (4=2) (5=1) (6=0)
INTO rIPF1 rIPF2 rIPF4 rIPF6 rIPF8 rIPF9 rIPF10 rIPF12 rIPF13 rIPF14 rIPF20 rIPF21 rIPF22 rIPF24 rIPF25
rIPF27 rIPF28 rIPF29
rIPF30 rIPF31 rIPF32 rIPF33 rIPF34 rIPF35 rIPF36 rIPF37 rIPF40 rIPF41 rIPF42 rIPF47 rIPF48 rIPF49 rIPF51
rIPF52 rIPF53 rIPF54 rIPF55 rIPF58 rIPF59 rIPF60 rIPF63 rIPF64 rIPF65
rIPF68 rIPF69 rIPF70 rIPF71 rIPF72 rIPF74 rIPF76 rIPF79 rIPF80 .
VARIABLE LABELS rIPF1 'trouble cooperating on tasks w spouse' rIPF2 'trouble sharing household tasks w spouse'
rIPF4 'trouble showing interest' rIPF6 'trouble being patient w spouse' rIPF8 'trouble being affectionate w spouse'
rIPF9 'trouble doing activities w spouse' rIPF10 'trouble interest in sexual activity' rIPF12 'trouble staying in touch w family'
rIPF13 'trouble doing activities w family' rIPF14 'trouble being affectionate w family' rIPF20 'trouble reporting work'
rIPF21 'trouble getting along w others at work' rIPF22 'trouble staying interested in work' rIPF24 'trouble performing work to
best of ability'
rIPF25 'trouble completing work on time' rIPF27 'trouble solving problems at work' rIPF28 'trouble maintaining balace work
and home'
rIPF29 'trouble performing work duties without needing extra help' rIPF30 'trouble cooperating on work-related tasks'
rIPF31 'trouble showing my skills' rIPF32 'trouble showing others at work they could depend on me' rIPF33 'trouble coming up
with ideas'
rIPF34 'trouble taking responsibility for my work' rIPF35 'trouble prioritizing work-related tasks' rIPF36 'trouble working hard
every day'
rIPF37 'trouble making work environment pleasant for others' rIPF40 'trouble meeting new people' rIPF41 'trouble staying in
touch w friends'
rIPF42 'trouble doing activities w friends' rIPF47 'trouble showing affection for friends' rIPF48 'trouble w children being able to
depend on me'
rIPF49 'trouble w interest in my childrens activities' rIPF51 'trouble being affectionate w children' rIPF52 'trouble sharing
thoughts or feelings w children'
rIPF53 'trouble doing activities w children' rIPF54 'trouble talking w children about important life issues' rIPF55 'trouble being a
good role model'
rIPF58 'trouble attending classes regularly' rIPF59 'trouble being interested in schoolwork' rIPF60 'trouble arriving on time for
classes'
rIPF63 'trouble solving problems in class' rIPF64 'trouble taking responsibility for schoolwork' rIPF65 'trouble being patient w
classmates/instructors'
rIPF68 'trouble remembering what I read' rIPF69 'trouble understanding course material' rIPF70 'trouble cooperating w
classmates'
rIPF71 'trouble getting along w classmates' rIPF72 'trouble completing schoolwork' rIPF74 'trouble maintaining good personal
hygiene'
rIPF76 'trouble eating healthy and nutritious meals' rIPF79 'trouble physically active' rIPF80 'trouble doing fun
activities/hobbies'
EXECUTE .
```

\*\*\*\*\* computing mean scores for each subscale\*\*\*\*\*

```
COMPUTE xRomance = MEAN.9 (rIPF1, rIPF2, IPF3, rIPF4, IPF5, rIPF6, IPF7, rIPF8, rIPF9, rIPF10, IPF11).
COMPUTE sumRomance = xRomance * 11.
COMPUTE RomanceTotal= (sumRomance/66) * 100.
VARIABLE LABELS RomanceTotal 'IPF Romantic Relationship (0-100 range)'.
EXECUTE.
```

```
COMPUTE xFamily = MEAN.6 (rIPF12, rIPF13, rIPF14, IPF15, IPF16, IPF17, IPF18).
COMPUTE sumFamily = xFamily * 7.
COMPUTE FamilyTotal= (sumFamily/42)* 100.
VARIABLE LABELS FamilyTotal 'IPF Family (0-100 range)'.
EXECUTE.
```

```
COMPUTE xWork = MEAN.17 ( IPF19, rIPF20, rIPF21, rIPF22, IPF23, rIPF24, rIPF25, IPF26, rIPF27, rIPF28, rIPF29,
rIPF30, rIPF31, rIPF32, rIPF33,
rIPF34, rIPF35, rIPF36, rIPF37, IPF38, IPF39).
COMPUTE sumWork = xWork * 21.
COMPUTE WorkTotal= (sumWork/126) * 100.
VARIABLE LABELS WorkTotal 'IPF Work (0-100 range)'.
EXECUTE.
```

```
COMPUTE xFriendship = MEAN.7 (rIPF40, rIPF41, rIPF42, IPF43, IPF44, IPF45, IPF46, rIPF47).
COMPUTE sumFriendship = xFriendship *8.
COMPUTE FriendshipTotal= (sumFriendship/48)* 100.
VARIABLE LABELS FriendshipTotal 'IPF Friendship (0-100 range)'.
EXECUTE.
```

```
COMPUTE xParenting = MEAN.8 (rIPF48, rIPF49, IPF50, rIPF51, rIPF52, rIPF53, rIPF54, rIPF55, IPF56, IPF57).
COMPUTE sumParenting = xParenting * 10.
COMPUTE ParentingTotal= (sumParenting/60)* 100.
VARIABLE LABELS ParentingTotal 'IPF Parenting (0-100 range)'.
EXECUTE.
```

```
COMPUTE xEducation = MEAN.12 (rIPF58, rIPF59, rIPF60, IPF61, IPF62, rIPF63, rIPF64, rIPF65, IPF66, IPF67, rIPF68,
rIPF69, rIPF70,
rIPF71, rIPF72).
COMPUTE sumEducation = xEducation * 15.
COMPUTE EducationTotal= (sumEducation/90)* 100.
VARIABLE LABELS EducationTotal 'IPF Education (0-100 range)'.
EXECUTE.
```

```
COMPUTE xSelfCare = MEAN.7 (IPF73, rIPF74, IPF75, rIPF76, IPF77, IPF78, rIPF79, rIPF80).
COMPUTE sumSelfcare = xSelfcare *8.
COMPUTE SelfcareTotal= (sumSelfcare/48)* 100.
VARIABLE LABELS SelfcareTotal 'IPF Selfcare (0-100 range)'.
EXECUTE.
```

\*\*\*\*\* computing global functional impairment scores (grand mean of applicable domains)

```
COUNT n_romance=rIPF1, rIPF2, IPF3, rIPF4, IPF5, rIPF6, IPF7, rIPF8, rIPF9, rIPF10, IPF11 (0 thru 6).
COUNT n_family=rIPF12, rIPF13, rIPF14, IPF15, IPF16, IPF17, IPF18 (0 thru 6).
COUNT n_work=IPF19, rIPF20, rIPF21, rIPF22, IPF23, rIPF24, rIPF25, IPF26, rIPF27, rIPF28, rIPF29, rIPF30, rIPF31,
rIPF32, rIPF33,
rIPF34, rIPF35, rIPF36, rIPF37, IPF38, IPF39 (0 thru 6).
COUNT n_friendship=rIPF40, rIPF41, rIPF42, IPF43, IPF44, IPF45, IPF46, rIPF47 (0 thru 6).
COUNT n_parenting=rIPF48, rIPF49, IPF50, rIPF51, rIPF52, rIPF53, rIPF54, rIPF55, IPF56, IPF57 (0 thru 6).
COUNT n_education=rIPF58, rIPF59, rIPF60, IPF61, IPF62, rIPF63, rIPF64, rIPF65, IPF66, IPF67, rIPF68, rIPF69, rIPF70,
rIPF71, rIPF72 (0 thru 6).
COUNT n_selfcare=IPF73, rIPF74, IPF75, rIPF76, IPF77, IPF78, rIPF79, rIPF80 (0 thru 6).
```



```
variable labels n_romance 'number nonmissing romance items' n_family 'number nonmissing family items'  
n_work 'number nonmissing work items' n_friendship 'number nonmissing friendship items' n_parenting 'number nonmissing  
parenting items'  
n_education 'number nonmissing education items' n_selfcare 'number nonmissing self care items'.  
EXECUTE .
```

```
if n_romance ge 9 romance=1.  
if n_family ge 6 family=1.  
if n_work ge 17 work=1.  
if n_friendship ge 7 friendship=1.  
if n_parenting ge 8 parenting=1.  
if n_education ge 12 education=1.  
if n_selfcare ge 7 selfcare=1.  
VARIABLE LABELS romance 'Romance considered completed based on enough items answered' family 'Family considered  
completed based on enough items answered'  
work 'Work considered completed based on enough items answered' friendship 'Friendship considered completed based on  
enough items answered'  
parenting 'Parenting considered completed based on enough items answered' education 'Education considered completed based  
on enough items answered'  
selfcare 'Selfcare considered completed based on enough items answered'.  
EXECUTE .
```

```
count n_domains = romance family work friendship parenting education selfcare (1).  
execute.
```

```
*****total score*****
```

```
COMPUTE IPFsum = SUM (RomanceTotal, FamilyTotal, WorkTotal, FriendshipTotal, ParentingTotal, EducationTotal,  
SelfcareTotal).
```

```
COMPUTE IPFtotal = IPFsum/n_domains.
```

```
VARIABLE LABELS IPFtotal 'total IPF Score 0-100').
```

```
EXECUTE .
```

```
*****  
*****
```

**Appendix F**  
**IPF Manual Draft**

**Inventory of Psychosocial Functioning (IPF)**

**Brian P. Marx, PhD**

**The development of the Inventory of Psychosocial Functioning was supported by a grant from the U. S. Army Medical Research and Materiel Command, Ft. Detrick, MD (Grant DoD #; Principal Investigator: Brian P. Marx).**

**Dr. Marx would like to express special appreciation to Paola Rodriguez for her invaluable assistance in preparing this manual, as well as to the following colleagues who assisted in the project:**

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Darren Holowka  
Denise M. Sloan**

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## INTRODUCTION

This manual describes the development of the full and brief versions of the Inventory of Psychosocial Functioning (IPF) and provides information on its administration, scoring, and psychometric properties. The IPF was developed as part of a four-year grant awarded by the Department of Defense<sup>1</sup> to improve our ability to adequately and competently assess PTSD-related functional impairment.

The full version of the IPF uses 80 items to assess impairment within the last 30 days across seven psychosocial functioning domains with sufficient breadth and depth without requiring respondents to make attributions regarding the cause of the impairments. Respondents answer each item by using a 7-point scale ranging from 0 (“never”) to 6 (“always”). The full IPF yields an overall functional impairment score as well as scores for Romantic Relationships, Family Relationships, Work, Friendships and Socializing, Parenting, Academic Pursuits, and Self-Care domains. There is also a briefer 7 item version of the IPF. Each item, which is also answered on a 7-point scale, corresponds to a single domain of functioning. Similar to the full version, respondents report on their functional impairment experienced within the last 30 days. The brief version yields an overall impairment score.

***Any one or more of the seven scales included in the full IPF may be used individually, depending upon the needs of the clinician or researcher.*** All scales in the IPF were derived from a four-phase psychometric effort involving: (a) the use of heterogeneous focus groups of veterans to establish content validity; (b) an initial study of a sample of female and male veterans at VA Boston Healthcare System to select items and establish initial psychometric properties; (c) a cross validation study with veterans in the VA Boston and Pacific Islands Healthcare Systems to confirm the psychometric properties and usefulness of the IPF in paper and pencil format and (d) a study of the brief version of the IPF with a large sample of active duty military personnel. The wording of all items in the IPF is appropriate for use with veterans of all eras. This manual is intended primarily as a resource for users of the paper-and-pencil version of the IPF; for consultation on other versions, please contact the test authors.

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## Rationale for the IPF

On behalf of the Department of Veterans Affairs (VA), the Institute of Medicine (IOM) convened a committee to examine ongoing concerns about the current procedures used to assess PTSD among veterans in compensation and pension examinations (Institute of Medicine, 2007). One of the committee's tasks was to review the utility of the Global Assessment of Functioning (GAF), a tool widely used in VA to assess the clinical significance criterion (i.e., functional impairment) associated with the symptoms of a given mental disorder. The GAF is a clinician-rated global index of illness severity that ranges from 0 to 100, with higher scores indicating better functioning. The IOM committee determined that the GAF score has limited utility for assessing disability associated with mental disorders such as PTSD among veterans because the GAF scale content reflects its intended emphasis on mood disorder and schizophrenia symptoms. As a result, the GAF has been previously criticized for combining psychiatric symptomatology and social-occupational functioning into one score (Goldman, 2005) despite the fact that these constructs are distinct. Due to this and other previously raised concerns that the GAF combines psychiatric symptomatology and social-occupational functioning (2 distinct constructs) into one score and that the GAF scores are most significantly associated with symptom ratings, rather than social or occupational standing and that GAF scores are frequently unreliable (Soderberg, Tungstrom, & Armelius, 2005; Brown, Campbell, & Lehman, 2001), the IOM committee recommended that the VA ultimately identify and implement an appropriate replacement for the GAF, although they did not specifically identify any such replacement (Holowka & Marx, 2012).

Currently, there are a number of self-report instruments from which clinicians can choose to use as part of their assessment battery (Table 1). A large number of extant measures of functional impairment and quality of life are available for clinical and research purposes. Table 1 provides information regarding many of the most widely used measures. Among the more commonly used measures to assess functional impairment and quality of life are the self-report version of World Health Organization Disability Assessment Scale-II (WHODAS-II; Epping-Jordan, Chatterji, & Ustün, 2000; WHO, 1988), the Medical Outcomes Study Short Form 36-item (SF-36; McHorney, Ware, & Raczek, 1993; Ware, 1999) and the Quality of Life Inventory (Frisch, Cornell, Villanueva, & Retzlaff, 1992).

Unfortunately, the available alternatives to the GAF have their own limitations. For example, a number of the measures that might replace the GAF are resource intense and/or require extensive training before use (e.g., Social and Occupational Functioning Assessment Scale (SOFAS; Spont et al., 2008), Patient-Reported Outcomes Measurement Information System ((PROMIS; World Health Organization [WHO], 2000), Longitudinal Interval Follow-up Evaluation (LIFE; WHO, 2000), Person-In-Environment System (PIE; Keller et al., 1987). Other measures, such as the SF-36 or WHODAS-II, may be difficult to score or require the purchase of a license or authorization before use. Many possible alternatives to the GAF, such as the Work Limitations Questionnaire (WLQ; McDevitt-Murphy, 2009), Work Productivity and Activity Impairment instrument (WPAI; Ouimette et al., 2010), Social Adjustment Scale (SAS; Guyatt, Walter, & Norman, 1987), or Sheehan Disability Scale (SDS; Cicchetti, 1994) may be too brief or narrow to capture all the domains of interest. In contrast, other measures may be too lengthy or impractical to be included in many health-care or research settings (e.g., Life Stressors and Social Resources; LISRES; American Psychiatric Association [APA], 2000). Other measures focus predominantly on physical health-related impairment (e.g., SF-36, SOFAS, WHODAS-II,

PROMIS). Other available measures of functioning require the respondent to make an attribution about the etiology of the impairment in question (LIFE, SDS, WHODAS-II, SF-36), which may bias results as most individuals are incapable of accurately making such attributions. This state of affairs suggests that the development of a new measure of psychiatric-related functional impairment is warranted. Importantly, any new measure would assess all the pertinent domains of functioning with sufficient breadth and depth without requiring respondents to make attributions regarding the cause of the impairments.

The methods by which we measure PTSD-related functional impairment have enormous value from a health care perspective in terms of identifying individuals with the disorder and for promoting more efficient allocation of resources and efforts towards those who are in most need. Perhaps the biggest impetus to develop a multidimensional PTSD-related functional impairment scale was to address the need to document the full effects of this disorder on interpersonal relationships, such as relationships with significant others, children, relatives, friends, coworkers; role performance at work, education or training; and daily living responsibilities. Our goal was also to develop a measure of functional impairment that could monitor response to treatment, and to demonstrate that symptom reduction may not necessarily indicate improvements in daily functioning (Francis, Ebesutani & Chorpita, 2012). By this we mean that functional impairment is often confused with severity of a disorder (Winters, Collett, Myers, 2005) and although symptom severity and functional impairment are often related, they are not interchangeable (Francis et al., 2012). Although functional impairment is a necessary condition for a DSM diagnosis, it is all too often overlooked or given only cursory evaluation. Symptom severity is often determined by summing the number of criterion symptoms defining a disorder (Winters et al., 2005). However, symptom severity does not identify the domains of life in which the individual is having difficulties. Functional impairment is a characteristic of the individual that indicates in a more global way how the individual functions across life's roles (Winters et al., 2005).

Functional impairment is clearly important, perhaps even more so than a disorder's diagnostic criteria, simply because it indicates the extent to which an individual's life and well-being have been disrupted by a given condition. Ultimately, functional impairment may be the outcome we are most interested in ameliorating, and consequently, paying specific attention to its assessment is crucial (Rodriguez, Holowka, & Marx, 2012).

### **IPF Constructs**

Functional ability has been defined as the capacity for an individual to carry out activities of everyday living (Shepard, 2011). These activities relate to the individual's responsibilities at home, work, and in their community. The ability to conduct these daily activities is what allows individuals to function independently and successfully in the world (Shepard 2011). Conversely, *functional impairment* is broadly defined as specific deficits in multiple domains of functioning developing subsequent to a disorder (Winters, Collett, & Myers, 2005). The IPF has been designed to yield an overall index of functional impairment as well as separate indicators for functional impairment in 1) Romantic Relationships, 2) Family Relationships, 3) Work, 4) Friendships and Socializing, 5) Parenting, 6) Academic Pursuits, and 7) Self-Care.

**Romantic Relationships:** This scale measures the extent to which an individual perceives that he/she is a supportive partner in a current romantic relationship, including the extent to which he/she can engage in conversations with their partner about personal thoughts and feelings, demonstrate interest in the partner’s well-being, participate in fun and relaxing activities together. It also includes the extent to which an individual can manage disagreements with his/her partner.

**Family:** This scale measures extent to which an individual is involved with relatives, such as siblings, parents, cousins. It does not refer to the relationship with a spouse or own children, because these are assessed specifically in the Romantic Relationship and Parenting subscales. The Family scale assesses the extent to which an individual stays in touch with relatives, participates in activities with them, and manages conflict with extended family members.

**Parenting:** This scale assesses the amount of involvement with his/her children, including showing interest in their activities, being reliable, communicating about important issues, and extent to which he/she feels capable of settling disagreements with the children.

**Friendships and Socializing:** This scale assesses the amount of contact with friends, including phone calls, emails and seeing each other in person. It also assesses the extent to which the individual communicates personal thoughts and feelings, as well as the extent to which individual can provide emotional support to friends.

**Work:** This scale assesses interpersonal relationships with coworkers, supervisors as well as work performance, including reliability, task completion, and ability to prioritize work-related tasks appropriately. The interpersonal items assess the extent to which the individual can collaborate with others, handle disagreements at work, and make the work environment pleasant for others.

**Education:** This scale assesses the extent to which the individual can focus in the classroom and complete homework assignments in an effective and timely manner. It also assesses the ability to collaborate with classmates, and manage disagreements with classmates and instructors.

**Self-Care:** This scale assesses the ability to manage household chores, medical care, finances, and engage in pleasant activities.

### Sample Items

Table 1 contains sample items for each IPF scale.

Subscale	Sample Items	Response format
<b>Social</b>		
Romantic	<ul style="list-style-type: none"> <li>• I showed interest in my spouse or partner's activities.</li> <li>• I had trouble giving emotional support to my spouse or</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).

	<p>partner.</p> <ul style="list-style-type: none"> <li>• My partner or spouse and I did activities that brought us closer together.</li> </ul>	
Family	<ul style="list-style-type: none"> <li>• I stayed in touch with family members (e.g. phone calls, e-mails, texts).</li> <li>• I had trouble settling arguments or disagreements with family members.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
Friendships	<ul style="list-style-type: none"> <li>• I was willing to meet new people.</li> <li>• I stayed in touch with friends (returning phone calls, emails, visiting).</li> <li>• My friends and I did activities that brought us closer together.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
Parenting	<ul style="list-style-type: none"> <li>• My children were able to depend on me for whatever they needed.</li> <li>• I was interested in my children's activities.</li> <li>• I had trouble communicating with my children.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
<b>Occupational</b>		
Work	<ul style="list-style-type: none"> <li>• I performed my job to the best of my ability.</li> <li>• I took responsibility for my work.</li> <li>• I was able to perform my work duties without needing extra help.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
Education	<ul style="list-style-type: none"> <li>• I arrived on time for my classes.</li> <li>• I had trouble remembering what the instructor said.</li> <li>• I got along with classmates and/or instructors.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).
<b>Daily living</b>		
Self Care	<ul style="list-style-type: none"> <li>• I had trouble keeping up with household chores (for example, cleaning, cooking, yard work, etc).</li> <li>• I had trouble managing my finances.</li> </ul>	7-point Likert Scale (0 = <i>Never</i> and 6 = <i>Always</i> ).

- I spent time doing activities or hobbies that were fun or relaxing.

Table 2 contains sample items from Brief IPF.

Brief IPF	
Overall in the past 30 days....	7-point Likert Scale (0 = <i>Not at all</i> and 6 = <i>Very much</i> ).
<ul style="list-style-type: none"> <li>• I had trouble in my romantic relationship with my spouse or partner.</li> <li>• I had trouble at work.</li> <li>• I was distressed or emotionally upset because of my difficulties at school.</li> </ul>	

### Uses

Our current inability to adequately assess the level of functional impairment associated with PTSD is a critical problem. Thus, our goal of developing and validating a PTSD-related functional impairment scale has great importance for the PTSD field. A reliable and valid PTSD-related functional impairment scale benefits our understanding of how frequently the disorder occurs among military personnel and veterans (e.g., prevalence of the disorder). It will also be important for determining the extent to which various therapies may be considered beneficial for military-related PTSD. A reliable and valid measure of PTSD-related functional impairment will also benefit our ability to make appropriate and competent compensation and pension decisions. In general, a reliable and valid PTSD-related functional impairment scale would have enormous value from a health care perspective in terms of identifying individuals with the disorder and for promoting more efficient allocation of resources and efforts towards those who are in most need. Perhaps the biggest impetus to develop a multidimensional PTSD-related functional impairment scale is to address the need to document the full effects of this disorder on sense of self, role functioning, interpersonal relationships, employment and financial status and living conditions as well as to demonstrate the impact of interventions on these areas. From a purely research perspective, a reliable and valid PTSD-related functional impairment scale will encourage standardization of data collection across studies of military personnel and veterans. Thus, the central goal of this project, development and validation of a PTSD-related functional impairment measure for military personnel and veterans, will make an important difference in the quality of patient care and scientific findings.

## PART TWO

### ADMINISTRATION AND SCORING Instructions and Administration Guidelines

The IPF assesses impairment within the last 30 days across multiple psychosocial domains of functioning with sufficient breadth and depth without requiring respondents to make attributions regarding the cause of the impairments. Respondents answer each item by using a 7-point scale ranging from 0 (“never”) to 6 (“always”). Because functioning over the past 30 days is assessed, respondents are instructed to skip sections of the instrument that are not currently relevant. Respondents take approximately 7 to 12 minutes to complete the full IPF, depending on the number of questions answered. Respondents should be given adequate time to complete the IPF at a comfortable pace.

*As noted several times previously, the measures represented in each section may be extracted and are available as separate entities.* Due to the sensitive nature of some of the items contained in the IPF, respondents may feel more comfortable completing some of the instrument’s items anonymously if circumstances permit.

Otherwise, the test administrator should make every attempt to ensure respondent privacy and confidentiality. The reading level of the instrument (instructions and items), as assessed by the Flesch-Kincaid index (Flesch, 1946, 1949), is grade level 7.0 across all measures. Therefore, the instrument should be suitable for the majority of military personnel and veterans.

#### Scoring Instructions for the Inventory of Psychosocial Functioning (IPF) (80 items)

- The IPF yields a mean score for the total scale and mean scores for each of the 7 subscales.
- Items are scored on a 0 (*never*) to 6 (*always*) scale, with higher scores indicating greater functional impairment.
- Each subscale is scored by a sum of all scored items (correcting for reverse coded items), divide the total by maximum possible score, and multiply by 100. Each subscale yields a score on a 0-100 range.

Subscales (underlined items are reversed in scoring) – the SPSS scoring syntax we provide will reverse score these items:

- Romantic relationships: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.
- Family: 12, 13, 14, 15, 16, 17, 18.
- Work: 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39.
- Friendships and socializing: 40, 41, 42, 43, 44, 45, 46, 47.

- Parenting: 48, 49, 50, 51, 52, 53, 54, 55, 56, 57.
  - Education: 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72.
  - Self Care: 73, 74, 75, 76, 77, 78, 79, 80.
- Grand mean score: mean of all completed IPF scales. As participants may skip certain subscales that do not apply to them, the total sum of all completed IPF scale scores is divided by the actual number of subscales completed by the participant.

\*\* A copy of the SPSS scoring syntax is provided in the Appendix of the IPF Manual.

## Part Three

### INSTRUMENT DEVELOPMENT AND PSYCHOMETRIC PROPERTIES

#### **Brief Literature Review**

Romantic Relationships and Family: Recent research has found that the symptoms of PTSD frequently result in deleterious consequences for intimate relationships. For example, re-experiencing symptoms such as nightmares can lead some couples to sleep separately, which can affect intimacy; avoidance symptoms can lead to isolation and rejection of fun activities with the spouse; and arousal symptoms can contribute to tension, anger, and escalation of conflict (Allen et al., 2010). Combat Veterans with PTSD have been reported twice as likely as non-PTSD Veterans to be divorced and three times as likely as those without PTSD to experience multiple divorces (Sautter et al., 2009). Studies have found that PTSD avoidance/numbing symptoms (e.g., anhedonia, emotional detachment from others, avoidance of trauma-related thoughts and feelings) are strongly associated with intimate relationship problems among Veterans (Riggs et al., 1998; Solomon et al., 2008a; Solomon et al., 2008b). In the context of intimate relationships, avoidance may initiate a cycle in which withdrawal and reluctance to discuss the past may serve to strengthen feelings of uncertainty and loneliness. This, in turn, reinforces the partner's apprehension, which leads to further withdrawal on the Veteran or service member's part (Solomon et al., 2008b). Monson and colleagues (2009) also theorized that difficulties with effective trauma disclosure and poor conflict resolution may lead to poor communication which, in turn, exacerbates relationship problems. Consistent with these hypotheses, Veterans in our study<sup>2</sup> commonly reported that PTSD avoidance and numbing symptoms were related to an increasing reluctance to participate in previously enjoyable activities with their partners. Many of these Veterans described a new preference for quiet, solitary activities, such as watching television or fishing, as well as a preference for activities they could perform without leaving the house.

Hyperarousal symptoms of PTSD have also been associated with greater intimate relationship difficulties. In particular, studies have found that increased anger, irritability and aggression are related to problems in intimate relationships. PTSD-related hyperarousal symptoms may also contribute to challenges that Veterans and their partners face when they engage in activities in public places. For example, PTSD-related hypervigilance may lead to Veterans avoiding crowds or prematurely or abruptly leaving social events when the partner is not ready to leave, sitting in certain places (e.g., near an exit or with back to the wall) when dining or in public, problems regulating affect in public and creating discomfort for their partner (Baptist et al., 2011; Galovski & Lyons, 2004). PTSD-related hyperarousal may also lead to problems related to driving; partners of Veterans with PTSD often complain of "road rage" and difficulty tolerating aggressive or risky driving, which can lead to frequent arguments (Baptist et al., 2011; Galovski & Lyons, 2004).

It has been hypothesized that combat Veterans with PTSD may experience trouble processing threatening social stimuli because these events may activate 'survival mode' reactions characterized by increased physiological arousal, hostile appraisals and defensive behavior, which may have been adaptive in life threatening contexts (e.g. combat), but are no longer

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adaptive, and can lead to problems in their current contexts (Taft, Watkins, Stafford, Street, & Monson, 2011).

It is also important to keep in mind that relationships are co-created, and a spouse/partner may also be experiencing their own difficulties, which can contribute equally or more so to discord in the relationship. Finally, it is also worth noting that in addition to acting as a causal factor, PTSD symptoms can worsen or intensify existing problems.

Parenting: Other recent studies have noted an association between PTSD and parenting difficulties (Cohen, Zerach, & Solomon, 2011; Solomon, Debby-Aharon, Zerach, & Horesh, 2011; Leen-Feldner, Feldner, Bunaciu, & Blumenthal, 2011). Gewirtz, Polusny, DeGarmo, Khaylis, & Erbes (2010) found that, among male Vietnam Veterans, PTSD symptoms were associated with decreased parenting satisfaction, impaired attachment with children, child behavior problems, and family violence. PTSD symptoms were also associated with less effective parenting (e.g., inconsistent discipline and poor supervision). In trying to explain how PTSD symptoms result in parenting difficulties, investigators have suggested that avoidance and numbing symptoms may produce impaired relationships through emotional and physical detachment, lack of interest and reduced monitoring of, and involvement with children (Ruscio, Weathers, King, & King, 2002), while hyperarousal symptoms may be associated with volatile or emotionally dysregulated parent-child interactions, especially in stressful situations (Gewirtz, Polusny, DeGarmo, Khaylis, & Erbes, 2010).

Clinicians and researchers have identified the emotional numbing and hyperarousal components of PTSD as particularly disruptive of the Veteran's family life (Galovski & Lyons, 2004). Galovski et al. (2004) suggested that fear and guilt over violent impulses acted on during combat situations and in the home, and current attempts to control these impulses, may lead the Veteran to avoid certain roles and activities which, in turn, affect the Veterans' overall ability to perform familial responsibilities and may further estrange them from their loved ones. Such withdrawal and avoidance may create other problems in the home as the other parent or partner may struggle with the increased responsibility and burden placed on him or her (Baptist et al., 2011; Galovski & Lyons, 2004).

Friendships and socializing: Data from our ongoing study has found that PTSD avoidance and numbing symptoms also impair friendships. Specifically, we found that PTSD symptoms were associated with difficulties in sharing thoughts or feelings, being emotionally supportive, and settling arguments or disagreements with friends. Our data also has shown that, although PTSD-related hypervigilance interfered with meeting new people, a combination of irritability, feelings of detachment/estrangement and hypervigilance were all related to impairment in friendships and socializing.

Work and academic performance: Recent studies have confirmed the results of earlier ones demonstrating that PTSD symptoms can adversely affect work and academic performance as well as the interactions with supervisors and peers in these domains (Bolton et al., 2004; Banyard, Potter, & Turner, 2011; Cows & Galloway, 2009; Heir, Piatigorsky, & Weisaeth, 2010). Rona and colleagues (2009) found that, among a sample of UK military personnel, PTSD-related avoidance and numbing symptoms, followed by hyperarousal symptoms, were most strongly associated with poor performance at work, (e.g. less time on task, accomplished less, difficulty performing duties). Sleep disturbances have been shown to adversely affect work and academic performance as evidenced by increased absenteeism and reduced productivity

(Morin, 2010; Daley et al., 2009). Fernandez-Mendoza et al (2010) showed that sleep disturbances were associated with worse neuropsychological performance on tasks involving processing speed, executive control of attention, visual memory, all of which can affect work and academic performance.

Other studies, including the ongoing study by Marx and colleagues, have confirmed that greater PTSD symptom severity is associated with increased number of days absent from work (Heir, Piatigorsky, & Weisaeth, 2010; Kessler, 2005). Other investigators have found that exposure to trauma, among a sample of active duty military personnel, predicted increases in PTSD symptoms as well as job burnout, job stress, work-family conflict and job dissatisfaction (Vinokur, Pierce, Lewandowski-Romps, Hobfoll, & Galea, 2011). Research with women has also found negative associations between a history of interpersonal violence and job satisfaction and job productivity (Banyard, Potter, & Turner, 2011). Bolton and colleagues (2004) found that, once again, PTSD-related symptoms of avoidance, numbing and hypervigilance can deleteriously affect academic performance and research with adolescents has found associations between PTSD and school truancy and suspensions (Margolin & Vickerman, 2011). Adolescents with PTSD show slower processing of incoming information and difficulties in concentration and decision making, which can have negative consequences for functioning in school (Margolin & Vickerman, 2011). Data from the U.S. National Comorbidity Survey revealed that individuals with PTSD had 40% elevated odds ratio of high school and college failure (Kessler, 2005), and 150% elevated odds of current unemployment at the time of the interview compared to people without PTSD.

## **Study Methodology**

### **Phase I: Item Generation and Refinement**

In the first phase of this project, we convened a series of focus groups, whose members were 53 male and female veterans using services at the VA Boston Healthcare System. These groups were used to set forth formal definitions of the PTSD-related functional impairment variables, create an item pool, and refine that pool with emphasis on standards of content validity, both content relevance and content breadth.

Using what in psychometrics is called the rational method to instrument construction (Edwards, 1970; Hulin, Drasgow, & Parsons, 1983; Nunnally, 1978), the first step was to carefully delineate complete and clearly expressed written definitions of the PTSD-related dimensions of functioning and quality of life. An examination of the most up-to-date published literature was conducted to identify any new and pressing concerns and controversies that should be incorporated into the content of scale items. Another important source of information was from veterans of various conflicts with military-related PTSD in the twelve focus group sessions (nine focus groups with men and three focus groups with women), each including 3-10 veterans and two research staff members as leaders. The intent was to pose a series of structured questions aimed at eliciting group members' functional impairments and quality of life issues related to their PTSD. In the end, we obtained clear and unambiguous definitions of each of the primary dimensions of functional impairment, based on both the scientific literature and the perspectives of veterans themselves.

To facilitate the coding and analysis of focus group data, all sessions were audiotaped with the consent of participants. We used a tape-based analytic strategy that involved developing an abridged transcript of the relevant and useful portions of the discussion (Krueger, 1998b). The relevance of the discussion was determined by whether it contained a reference to any of our previously identified PTSD-related impairment themes or by whether it introduced an additional theme that we had not previously considered. Five study staff, two of whom had been physically present during the focus groups, listened to an audiotape of each focus group. This approach is consistent with the recommendation that at least one person who was physically present in the room when the focus group was conducted and who was familiar with the context of the discussion participate in data analysis (Krueger, 1994). Coders were provided with a list of themes and definitions that they were told may or may not have been discussed during the focus group. Coders listened to audiotapes twice. First, they simply listened to become familiar with the flow of the conversation and the topics that were raised. On the second review, coders would stop the audiotape each time they heard a participant mention an identified a PTSD-related impairment theme and to record verbatim the sentence or sentences in which it was discussed. Coders were also instructed to stop the audiotape if they hear a participant describe any other PTSD-related impairment theme that was not included among our previously identified list and to record this sentence or sentences as well. Finally, coders noted any novel terminology participants used to describe their experiences. Next, the coders met to discuss their review of the tapes. To the extent that coders agreed with one another regarding whether quotes were examples of identified themes (i.e., constructs), quotes relevant to each of the key constructs were compiled. Coders also introduced additional constructs for consideration in these meetings. As recommended by focus group experts (Krueger, 1994), newly nominated and ongoing refinements of conceptualizations were incorporated in the list of PTSD-related impairments and definitions used by coders throughout the process. The information in the final compilations was then be used to refine definitions of constructs as needed, to identify additional constructs, and to inform item development.

Next, a table of specifications (Aiken, 1994) was employed to aid in the orderly construction of items across content areas. In this regard, for each of the functional impairment dimensions, separate aspects of the definition were identified, and items were written so as to systematically represent these aspects. The goal was to write an initial pool of about 20 items for each concept. Items followed a 7-point Likert-type response scale, with options ranging from "never" to "always." Care was taken to balance the valence of item keying so as to obviate any form of acquiescence response style. The language and comprehension level of the items was monitored via the Flesch-Kincaid computation (Flesch, 1949), with a goal of no higher than the recommended 7<sup>th</sup> grade level for instruments intended for the general population. The Flesch-Kincaid grade level for the final version of each of the subscales ranged from 5.0 – 7.6, confirming that the reading ease of all subscales was no higher than the recommended level.

Finally, as a check for item quality, a panel of experts (including Drs. Hoge, Bliese, Schnurr, Weathers) was asked to review the item pool. This panel included doctoral-level clinicians at the National Center for PTSD who have experience in stress research with military veteran

populations, as well as career military personnel. Panel members were given the pool of candidate items and the formal definitions from which the items were derived and asked to verify item content. In addition, each content expert was asked to provide judgments regarding the content saturation of each item vis-à-vis its respective definition. We also asked the VA Boston's Diversity Committee to review the items for language and content bias. They were also asked to comment on item wording and clarity and provide any additional feedback that might improve the statements. Format style and item content that were not consensually endorsed because of content deficiency, lack of clarity, or other reasons were eliminated.

The end result of these steps yielded The Inventory of Psychosocial Impairment (IPF). The IPF is an 80-item self-report measure designed to assess functional impairment across multiple domains experienced by active duty service members and veterans. Table 1 presents some sample items from the IPF.

On the IPF, respondents rate their functioning over the past 30 days. Items are rated on a 7-point scale ranging from 0 ("never") to 6 ("always") (in the initial iteration of the IPF, we had the likert scale on a 7-point scale, ranging from 1-7; however, later on, we recognized it would be clearer if we kept the same 7-point likert scale, but shift it to range from 0 to 6). The IPF yields an overall score and a score for each of seven subscales: Romantic relationships with a spouse or partner, Family relationships, Work, Friendships and socializing, Parenting, Education, and Self-Care. Subscale scores are computed by taking the mean of the responses to each item within that subscale. In the first iteration of the IPF, there were two questions at the end of each domain subscale that asked respondents to rate how much overall difficulty they experienced in that particular domain of functioning in the past 30 days and the amount of distress they experienced in relation to those difficulties in the past 30 days. These 2 items were not included in the subscale total scores but rather were used as broad indicators of functional impairment and related distress in those functional domains. Data analyses revealed that these two items were correlated with the total score of that domain ( $r = .42$  to  $.62$ ) as well as with each other ( $r = .69$  to  $.94$ ). As a result, we decided that only one of these items would be needed for a brief and general assessment of each functional domain. We named this measure the Brief Inventory of Psychosocial Functioning (B-IPF).

Because the IPF assesses functioning over the past 30 days, respondents may skip out of subscales of the instrument that do not apply to them. For example, if they have not been in contact with family during the past 30 days, they may skip the subscale on family relationships and proceed to the next section.

Generally, for individuals who complete the entire measure (i.e. total of 7 domains), the time required to complete it ranges from 9-16 minutes. On average, each subscale takes

approximately 2 minutes to complete. Most veterans (25%-30%) in our sample completed 4 IPF subscales.

## **Phase II**

Data collection and additional instrumentation. The test development sample was selected in accordance with the sampling plan. Two hundred eighty five consenting veterans at the VA Boston Healthcare System completed diagnostic interviews and self-report questionnaires. The session lasted approximately two hours. Eighty-five percent of participants were male and 15% were female. Further, we collected data on a diverse sample of veterans, with representation from Vietnam, Persian Gulf, and OEF/OIF conflicts. Table X presents a profile of this sample.

Historical/demographic information was obtained during the interview as well as through chart review concerning the following variables: age, race, socioeconomic status, current annual income, employment, education, and marital status. In addition, historical data regarding illegal behaviors, suicide attempts, psychiatric hospitalizations, prescription medications, interpersonal conflicts, and service connection disability status were collected. We also obtained pertinent information from veterans' military history, including declaration of combat theatre duty and military occupational specialty.

PTSD diagnosis was assessed using the Clinician-Administered PTSD Scale for DSM-IV (CAPS). The CAPS was designed to improve the reliability and validity of PTSD assessment. Since its development, the CAPS has become the gold standard for arriving at a PTSD diagnosis, either current or lifetime, and has been used in more than 200 published studies. The CAPS is a semi-structured clinical interview that is designed to assess the 17 core symptoms of PTSD as defined by the DSM-IV along with five associated features. The CAPS interview includes the following components: life events checklist (Criterion A – trauma exposure), PTSD core symptoms (Criteria B – reexperiencing, Criterion C – numbing and avoidance, and Criterion D – hyperarousal), Criterion E (chronology), and Criterion F (functional impairment associated with PTSD symptomatology). The CAPS allows the interviewer to rate the frequency and intensity of each symptom along five-point ordinal scales, the impact of symptoms on the patients social and occupational functioning, the overall severity of the symptom complex, and the global validity of ratings obtained. This results in finer discriminations in the frequency and intensity of PTSD symptoms. The total score for the CAPS PTSD ratings (frequency + intensity) range from 0 to 136. A significant advantage of the CAPS is that cutoff scores can be adjusted for optimal prediction in different populations or against more or less stringent criteria. This feature can be used to yield either a dichotomous (i.e., present or absent) or continuous (i.e. severity) scores for each symptom and for the disorder as a whole.

Functional impairment was assessed using several established measures. The Medical Outcomes Study Veterans RAND 36 Item Health Survey (VR-36); Ware & Sherbourne, 1992) provides eight domain scores indexing physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role, and mental health; in addition, summary physical and mental health scores may be computed. The reliability and validity of the SF-36 are well documented (e.g., McHorney, Ware, & Raczek, 1993).

The World Health Organization Disability Assessment Schedule II (WHODAS II) is a measure of functional disability which assesses a wide-range of impairment and disability dimensions using multi-item scales including pain, concentration, understanding and communicating, mobility, self care, family burden, getting along with others, household and work activities and work loss, and participation in society (Appendix A:WHODAS). All of the six domains on the WHODAS-II have factor loadings of at least 0.7 and each individual item correlates positively (ranging from 0.48 to 0.93) to its respective domain. The WHODAS-II is used across countries and population groups and has high test-retest reliability (kappa .65-.78) and correlates with measures of quality of life such as the SF-12 and SF-36, the London Handicap Scale, and the WHOQOL. The WHODAS-II is becoming widely used in investigations of functional disability across wide-ranging populations, including the physically ill (i.e. rheumatology, pulmonary, primary care cohorts) and severely mentally ill (schizophrenic cohorts). For this study, we used the 36-item self-report version of this scale. Scores for each of the 6 individual domains, as well as an overall score of global functional disability can be calculated.

The Global Assessment of Functioning (GAF) is the standard method for representing a clinician's judgment of a patient's overall level of psychosocial functioning. As such, it is probably the single most widely used method for assessing impairment among patients with psychiatric or substance use disorders or both. The GAF requires a clinician to make an overall judgment about a patient's current psychological, social, and occupational functioning. In *DSM-IV-TR*, this rating is made on a scale from 1 to 100, with ratings of 1 to 10 indicating severe impairment and ratings of 91 to 100 indicating superior functioning. GAF ratings of impairment are modestly associated with some indexes of social functioning, such as the extent of social networks and the need for support, and with residential instability, lack of employment, and poor work adjustment. In general, however, these relationships are relatively weak; GAF ratings tend to be more closely associated with diagnoses and psychiatric symptoms than with social and occupational functioning.

General life satisfaction, defined as "an individual's evaluation of the degree to which his or her most important needs, goals, and wishes have been fulfilled" (Frisch, Cornell, Villanueva, & Retzlaff, 1992, p. 93) was measured using the Quality of Life Inventory (Frisch, 1992), a 16-item instrument employing a Likert-type response format and producing a weighted summative score across multiple facets of life satisfaction (e.g., standard of living, work, home, and relationships with relatives). The psychometric qualities for this measure are strong, with high test-retest and internal consistency reliability and strong validity coefficients for clinical and community samples, including veterans.

The Sheehan Disability Scale (SDS) was used to assess disability in work or school, family life, and social life (Sheehan, 1983). The participant rates the extent to which he or she experiences problems in each of these domains due to his or her symptoms on a 10-point visual analog scale. The three items may be summed into a single measure of global functional impairment that ranges from 0 (unimpaired) to 30 (highly impaired) (Sayer, Carlson, & Schnurr, manuscript). The scale has been validated on participants with affective disorders in a primary care setting (Leon, 1997 cited in Leon et al. 1999). It has also shown to be validated in a study involving patients with bipolar disorder (Arbuckle et al. 2006).

To assess malingering, participants will be completing the M-FAST (Miller, 1995). The M-FAST is a brief 25-item screening interview for individuals ages 18 years and older that provides preliminary information regarding the probability that he/she is feigning psychiatric illness. Most malingering and symptom validity instruments assess malingered cognitive and/or neuropsychological deficits. The M-FAST focuses exclusively on malingered psychiatric illness including Depression, Schizophrenia, Hypervigilance, Personality Disorder, Nightmares, and a Suggestibility Interview.

The HPQ Relative Absenteeism Survey assesses the participant's attendance at work. It is derived from VA Cooperative Studies #566.

The Major Depressive Disorder module of the Mini International Neuropsychiatric Interview (MINI) is a short diagnostic structured interview designed to explore the presence of diagnostic criteria for Major Depressive Disorder (Lecrubier et al., 1998). The reliability, sensitivity and specificity were explored in a clinical population versus the CIDI (Lecrubier et al, 1997) and versus the SCID (Sheehan et al, 1997). In both cases the performance of the MINI was equivalent to that of the longer interview.

The Psychopathic Personality Inventory-Short Form (PPI-SF) is a 56-item self-report measure of both global psychopathy and the component traits of psychopathy.

We also included the new instrument designed in Phase I by using the information from the focus groups. This instrument consisted of 87 items and asked respondents to rate their functioning over the past 30 days. Items were rated on a 7-point scale ranging from 1 ("never") to 7 ("always"). The instrument yielded a mean score for each of seven scales: Romantic Relationships with a spouse or partner, Family Relationships, Work, Friendships and Socializing, Parenting, Education, and Self-Care. Following the detailed questions for each domain, two items assessed overall impairment and distress in that domain. These two overall items were not included in the scale or total scores but instead were used as broad indicators of functional impairment and related distress.

Classical test theory-oriented item and scale characteristics were computed (Aiken, 1994; Anastasi, 1982; Nunnally, 1978). For all items, frequency distributions and descriptive statistics first were calculated. Corrected item total correlations, the correlations of each item's score with the sum of scores on all other items measuring that construct, were computed as appropriate. We used several guidelines in our selection of the best items to assess each functioning domain. Items having a symmetric response distribution were preferred over items having a skewed distribution. In general, items with higher item-total correlations took precedence over those with lower item-total correlations. For certain constructs, however, content relevance and content breadth were considered more critical to item retention than the item-total correlation.

#### Results:

From the initial dataset of 284 veterans, 9 cases were excluded from psychometric analyses because a validity screen indicated these participants answered all 0s or all 6s to any of the IPF subscales, and because the measure has reverse coded items, any respondent who answered all 0s or all 6s is likely not a valid responder.

Data from these remaining 275 veterans showed that the 80 items of the IPF have strong internal consistency, with a Cronbach's alpha coefficient of .91. For each IPF subscale, Cronbach's alphas ranged from .78 to .88. Additionally, the corrected item-total correlations by subscale range from  $r = .19$  to  $r = .76$ . The means and standard deviations for each IPF subscale are presented below.

**Data Analysis from Phase II:**

*Table 3. Scale Characteristics, VA Boston Healthcare System, Phase II*

<b>Functional Impairment Study Phase II</b>						
<b>IPF scale</b>	<b>No. of Items</b>	<b>Mean</b>	<b>SD</b>	<b>Range</b>	<b>No. of cases</b>	<b>Alpha</b>
Full scale	80	41.38	16.44	0-95	8	.91
Romantic relationship	11	40.54	18.27	0-77	123	.78
Family	7	47.11	22.77	0-100	211	.81
Parenting	10	31.30	20.03	0-90	104	.82
Friendships	8	39.57	21.24	0-98	212	.79
Work	21	23.46	15.06	0-71	82	.87
Education	15	35.08	19.28	6-76	33	.88
Self-care	8	44.48	19.17	0-94	253	.73



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The IPF subscales and IPF grand mean score all correlated significantly with a number of other self-report measures of impairment and quality of life, such as the Sheehan Disability Scale (SDS), World Health Organization Disability Assessment Schedule II (WHODAS-II), The Medical Outcomes Study Veterans RAND 36 Item Health Survey (VR-36), and Global Assessment of Functioning (GAF).

Specifically, scores on the social and interpersonal IPF subscales (i.e. Romantic Relationships, Family, Friendships & Socializing, Parenting) correlated significantly with associated subscales in other measures, with correlations ranging from  $r = .30$  to  $r = -.60$  (all  $ps < .05$ ) (i.e. VR-36- Social Functioning; WHODAS II- Getting along with people, Sheehan-Social and Family functioning). It had slightly lower, but still significant, associations with the GAF ( $r = .30$  to  $r = -.67$ , all  $ps < .05$ ).

Scores on the occupational and training IPF subscales (Work and Education) correlated significantly with other occupational subscales in other functioning measures, with correlations ranging from  $r = -.47$  to  $r = .70$  (all  $ps < .05$ ) (i.e. VR-36-Role Emotional; WHODAS- Work and School; Sheehan-Work and School functioning). The Work and Education subscales of the IPF correlated a bit less strongly with the GAF (Work  $r = -.29$ , Education  $r = -.43$ , both  $p < .05$ ).

Lastly, scores on the Self-care IPF subscale correlated significantly with several similar subscales in other measures (i.e.; VR-36 Role Emotional; WHODAS- Self-care, Life Activities; Sheehan-social life/leisure activities) with correlations ranging from  $r = .53$  to  $r = .64$  (all  $ps < .01$ ). The Self-care subscale of the IPF correlated at  $-.36$  ( $p < .01$ ) with the GAF.

The grand mean IPF score correlated significantly with the total scores of the WHODAS-II,  $r = .72$ ,  $p < .001$ ; GAF,  $r = -.41$ ,  $p < .01$ ; VR-36 Role Emotional score,  $r = -.60$ ,  $p < .001$ .

### **IPF and PTSD in Phase II:**

The grand mean IPF score correlated significantly with PTSD symptom severity,  $r = .46$   $p < .001$ , assessed using the Clinician Administered PTSD Scale for DSM-IV (CAPS). Individuals meeting diagnostic criteria for PTSD had grand mean IPF scores of 45.77 ( $SD = 24.95$ ), whereas individuals not meeting diagnostic criteria for PTSD had significantly lower overall grand mean IPF scores ( $M = 29.07$ ,  $SD = 20.64$ )  $t(273) = -6.48$ ,  $p < .001$ . Subscale IPF scores were also associated in the expected direction with PTSD.

*Table 4. Comparisons of IPF Scores between Veterans with PTSD and without PTSD, based on the CAPS-IV-TR, VA Boston Healthcare System, Phase II*

	<b>PTSD</b>	<b>No PTSD</b>	
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<b>IPF</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>t</b>	<b>df</b>	<b>p</b>
IPF Total	73	<b>45.77</b>	24.95	202	<b>29.07</b>	20.64	-6.48	273	.00**
Romantic	34	<b>46.26</b>	20.46	104	<b>38.66</b>	17.19	-2.13	136	.04*
Family	60	<b>58.66</b>	23.94	154	<b>42.60</b>	20.69	-4.88	212	.00**
Work	27	<b>38.27</b>	19.88	66	<b>25.99</b>	17.51	-2.95	91	.00**
Friendships	55	<b>50.83</b>	20.88	168	<b>35.88</b>	20.08	-4.74	221	.00**
Parenting	29	<b>39.90</b>	21.54	86	<b>28.39</b>	18.75	-2.75	113	.05*
Education	9	<b>44.51</b>	24.82	29	<b>32.16</b>	16.67	-1.39	36	.09
Self Care	71	<b>56.51</b>	18.23	198	<b>40.16</b>	17.64	-6.64	267	.00**

### **IPF, Depression and Substance use disorders in Phase II:**

The grand mean IPF score also correlated significantly,  $r = .52, p < .001$ , with Major Depression symptom severity, assessed using the module for Major Depressive Episode (current) from the M.I.N.I. International Neuropsychiatric Interview. Individuals meeting diagnostic criteria for Major Depressive Disorder had an IPF grand mean of 49.26 ( $SD = 15.76$ ), whereas individuals not meeting diagnostic criteria for Major Depressive Disorder had a significantly lower IPF grand mean ( $M = 34.42, SD = 13.64$ )  $t(271) = -8.34, p < .001$ .

*Table 5. Comparisons of IPF Scores between Veterans with and without Major Depression, based on the M.I.N.I. Major Depressive Episode module, VA Boston Healthcare System, Phase II*

<b>IPF</b>	<b>Depression</b>			<b>No Depression</b>			<b>t</b>	<b>df</b>	<b>p</b>
	<b>N</b>	<b>Mean</b>	<b>SD</b>	<b>N</b>	<b>Mean</b>	<b>SD</b>			
IPF Total	130	<b>49.26</b>	15.76	143	<b>34.42</b>	13.64	-8.34	271	.00**
Romantic	61	<b>47.54</b>	18.03	77	<b>34.99</b>	16.57	-4.29	136	.00**
Family	100	<b>54.65</b>	22.81	114	<b>40.49</b>	20.66	-4.76	212	.00**
Work	36	<b>26.91</b>	16.36	56	<b>21.28</b>	14.00	-1.76	90	.08
Friendships	94	<b>46.41</b>	21.27	127	<b>34.91</b>	19.77	-4.14	219	.00**
Parenting	50	<b>35.02</b>	21.79	65	<b>28.43</b>	18.23	-1.76	113	.08

Education	15	<b>42.71</b>	18.20	23	<b>30.11</b>	18.68	-2.05	36	.05*
Self Care	127	<b>53.82</b>	17.16	140	<b>36.11</b>	17.02	-8.46	265	.00**

The IPF correlated significantly with PTSD severity scores which were assessed using the Clinician Administered PTSD Scale for DSM-IV ( $r=.46$ ); depression severity scores assessed by a clinician using the Mini-International Neuropsychiatric Interview (M.I.N.I.): ( $r=.52$ ); and less strongly but still significantly, with self-reported measures of Alcohol severity ( $r=.17$ ) and drug use severity ( $r=.16$ ),

*Table 6. Correlations of overall Functional Impairment severity, measured using the IPF, with measures of PTSD, Depression, and Substance Abuse severity, VA Boston Healthcare System, Phase II*

<b>Data from Functional Impairment Study, Phase II</b>	
<b>Measure</b>	<b>IPF total score (0-100)</b>
PTSD severity (CAPS)	<b>.46**</b>
Depression severity (M.I.N.I.)	<b>.52**</b>
Alcohol disorder (AUDIT)	<b>.17*</b>
Alcohol and/or drug disorder (TICS)	<b>.16*</b>
<i>*p&lt;.01, **p&lt;.001</i>	

We also assessed exaggeration of psychological symptoms using the Miller Forensic Assessment of Symptoms Test (M-FAST) interview. Based on suggested cutoff scores in the M-FAST manual, we categorized individuals with a score equal to or greater than 8 on the M-FAST as potentially exaggerating psychological symptoms. We examined mean differences in the IPF subscales and grand mean between “non-exaggerators” and “potential exaggerators” and found that “potential exaggerators” reported significantly higher impairment in romantic relationships, self-care, and grand mean of the IPF. Notably, there were no differences between potential exaggerators and non-exaggerators on severity of work-related impairment. This may be due to the fact that we already removed some individuals who may have responded in a biased fashion on these measures. These findings also suggest that greater reported impairment in romantic relationship and self-care domains may be indicative of a greater likelihood of respondent exaggeration.

Table 7. Comparisons Between potential exaggerators and non-exaggerators on IPF scores, VA Boston Healthcare System, Phase II

IPF SCORES BY MFAST									
IPF Domain Scores	Non-exaggerators			Potential exaggerators					
	N	M	SD	N	M	SD	<i>t</i>	df	<i>p</i>
IPF Grand mean	249	40.67	16.23	24	49.97	16.54	-2.68	271	<b>.008*</b>
Romantic rel.	124	39.48	13.97	14	49.95	18.80	-2.06	136	<b>.04*</b>
Family	195	46.60	22.84	19	52.32	21.98	-1.05	212	.30
Work	88	23.63	15.24	4	20.23	14.23	.44	90	.66
Friendship	204	39.47	20.58	17	43.75	27.62	-.80	219	.42
Parenting	108	31.52	19.33	7	27.83	25.00	.47	113	.64
Education	35	33.59	19.33	3	52.38	6.06	-1.66	36	.11
Self-care	244	43.40	18.99	23	56.62	17.81	-3.21	265	<b>.001**</b>

### Phase III: Inventory Cross-Validation

Phase III involved the collection of data from a second-stage test sample to support cross validation and criterion-related validity. Refined measures of the previously identified dimensions of PTSD-related functional impairment, along with measures of PTSD and other health outcomes were administered to another veteran sample.

Data collection and additional instrumentation. In total, 393 consenting veterans at the Boston VA Healthcare System participated in Phase III. 214 were collected from the VA Boston Healthcare System and 179 were collected at the VA Pacific Islands Healthcare System. This was done to improve the ethnic and racial diversity of the sample. Eighty-five percent of participants were male and 15% were female. Participants were administered a shortened version of the inventory as well as scales intended to assess physical and mental health, health-related quality of life, functional impairment, and social desirability. Data collection lasted about 2 hours for each participant. In order to assess test-reliability of the IPF, we had 100 Phase III participants return to the testing site no later than four weeks after their initial visit to re-administer the entire survey packet. Tables X and X provides a profile of the sample.

Table 8. Demographics and Respondent Characteristics for the Validation Sample, VA Boston Healthcare System, Phase III

<b>Functional Impairment Study Phase III- VA Boston Healthcare System</b>
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<b>VARIABLE</b>	<b>FREQUENCY</b>	
Gender	<u>n</u> = 214	%
Male	179	83.6
Female	34	15.9
Both Genders	1	0.5
Age Group	<u>n</u> =210	%
21-39	31	14.5
40-59	139	65
>60	40	18.7
Race	<u>n</u> = 214	%
White (Non-Hispanic)	133	62.1
Black (Non-Hispanic)	58	27.1
American Indian	6	2.8
Alaska Native	1	0.5
Asian/Pacific Islander	3	1.4
Hispanic	15	7
Branch of Military	<u>n</u> = 212	%
Army	121	56.5
Air Force	23	10.7
Navy	51	23.8
Marines	21	9.8
Other	8	3.7
Type of Duty	<u>n</u> = 209	%
Active	155	72.4
Guard/Reserve	16	7.5
Both	38	17.8

*Table 9. Demographics and Respondent Characteristics for the Validation Sample, VA Pacific Islands Healthcare System, Phase III*

<b>Functional Impairment Study Phase III- VA Pacific Islands Healthcare System</b>		
<b>VARIABLE</b>	<b>FREQUENCY</b>	
Gender	<u>n</u> = 179	%
Male	156	87.2
Female	21	11.7
Missing	2	1.1
Age Group	<u>n</u> = 179	%
21-39	19	10.6
40-59	119	66.5
>60	41	22.9
Race	<u>n</u> = 179	%
White (Non-Hispanic)	90	50.3
Black (Non-Hispanic)	39	21.8
American Indian	19	10.6
Alaska Native	0	0
Asian	30	16.8
Hispanic	15	8.4
Pacific Islander	32	17.9
Branch of Military	<u>n</u> = 177	%
Army	91	50.8
Air Force	22	12.3
Navy	38	21.2
Marines	27	15.1

Other	6	3.4
Type of Duty	<u>n</u> = 174	%
Active	141	78.8
Guard/Reserve	1	0.6
Both	32	17.9

For Phase III, in place of the CAPS, we used the PTSD Checklist (PCL; Weathers et al., 1993) to assess PTSD symptoms. The PCL has good sensitivity and specificity and is positively correlated with standard measures of PTSD. We also used the PCL-5 (Weathers et al, personal communication, 2010) a newly developed PTSD checklist designed to assess the PTSD criteria in the DSM-5. We also used the Life Events Checklist (Gray et al., 2004) to assess for instances of exposure to traumatic life events.

Historical/demographic information was obtained during the interview as well as through chart review concerning the following variables: age, race, socioeconomic status, current annual income, employment, education, and marital status. In addition, self-reported data regarding illegal behaviors, suicide attempts, psychiatric hospitalizations, prescription medications, interpersonal conflicts, and service connection disability status was collected. We also obtained pertinent information from veterans' military history, including declaration of combat theatre duty and military occupational specialty.

Functional impairment was assessed using several established measures. The Medical Outcomes Study 36-item Short Form Health Survey-veterans version (SF-36V; Ware & Sherbourne, 1992) provides eight domain scores indexing physical functioning, physical role, bodily pain, general health, vitality, social functioning, emotional role, and mental health; in addition, summary physical and mental health scores may be computed. The reliability and validity of the SF-36 are well documented (e.g., McHorney, Ware, & Raczek, 1993).

The World Health Organization Disability Assessment Schedule II (WHODAS II) is a measure of functional disability which assesses a wide-range of impairment and disability dimensions using multi-item scales including pain, concentration, understanding and communicating, mobility, self-care, family burden, getting along with others, household and work activities and work loss, and participation in society. All of the six domains on the WHODAS-II have factor loadings of at least 0.7 and each individual item correlates positively (ranging from 0.48 to 0.93) to its respective domain. The WHODAS-II is used across countries and population groups and has high test-retest reliability (kappa .65-.78) and correlates with measures of quality of life such as the SF-12 and SF-36, the London Handicap Scale, and the WHOQOL. The WHODAS-II is becoming widely used in investigations of functional disability across wide-ranging populations, including the physically ill (i.e. rheumatology, pulmonary, primary care cohorts) and severely mentally ill (schizophrenic cohorts). For this study, we used the 36-item self-report version of this scale.

Scores for each of the 6 individual domains, as well as an overall score of global functional disability can be calculated.

Functional Impairment will be assessed with the Inventory of Psychosocial Functioning (IPF) designed in Phase I and II by using the information from focus groups and psychometric testing during Phase II. A brief report format to assess global aspects of functioning and a longer format to assess more specific aspects of functional impairment was used.

General life satisfaction, defined as "an individual's evaluation of the degree to which his or her most important needs, goals, and wishes have been fulfilled" (Frisch, Cornell, Villanueva, & Retzlaff, 1992, p. 93) was measured using the Quality of Life Inventory (Frisch, 1992), a 17-item instrument employing a Likert-type response format and producing a weighted summative score across multiple facets of life satisfaction (e.g., standard of living, work, home, and relationships with relatives). The psychometric qualities for this measure are strong, with high test-retest and internal consistency reliability and strong validity coefficients for clinical and community samples, including veterans.

The Sheehan Disability Scale (SDS) was also used to assess disability in work or school, family life, and social life (Sheehan, 1983). The participant rates the extent to which he or she experiences problems in each of these domains due to his or her symptoms on a 10-point visual analog scale. The three items may be summed into a single measure of global functional impairment that ranges from 0 (unimpaired) to 30 (highly impaired) (Sayer, Carlson, & Schnurr, manuscript). The scale has been validated on participants with affective disorders in a primary care setting (Leon, 1997 cited in Leon et al. 1999). It has also shown to be validated in a study involving patients with bipolar disorder (Arbuckle et al. 2006).

Delusional Ideation was assessed using the 21-item Peters et al. Delusions Inventory PDI; Peters et al., 2004). This inventory incorporates multidimensional items to measure delusions including measures of distress, preoccupation, and conviction. The psychometric qualities for this measure are strong, with high internal consistency reliability ( $\alpha = 0.82$ ) and strong validity coefficients for clinical and community samples.

Severity of somatic symptoms was assessed using the full version of the Patient Health Questionnaire (PHQ; Spitzer et al., 1999). The PHQ is a self-report version of the PRIME-MD and has been validated in many recent studies (Spitzer et al., 1999; Spitzer et al., 2000). The PHQ is a 58 item questionnaire which assesses eight somatic diagnoses divided into threshold and sub threshold disorders.

Socially desirable responding was assessed using the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1984). The BIDR is comprised of 40 items incorporating both the Self-Deception Questionnaire (SDQ) and the Other-Deception Questionnaire (ODQ) which each have 20 Likert-type items. The SDQ items are statements judged to be universally true but psychologically threatening and the ODQ items are about socially desirable but statistically infrequent behaviors. The convergent and divergent validity of the scales have been supported in many studies (Gur & Sackeim, 1979; Paulhus, 1982; Sackeim & Gur, 1978, 1979).



Personality traits was assessed using the brief form of the Multidimensional Personality Questionnaire (MPQ-BF; Patrick, Curtin & Tellegen, 2002). The MPQ-BF is a 155 item and consists of 11 primary scales with 12 items each. The internal consistency of the scale is good with alpha coefficients for the 12-item primary trait scales ranging from .75 to .84 and all scales are highly correlated with the original MPQ primary trait scales. In addition, we used the Psychopathic Personality Inventory- Short Version (PPI-SV; Lilienfeld & Andrews, 1996). The PPI-SF is a 56-item inventory designed to assess the major personality traits of psychopathy in noncriminal populations. The PPI-SV is based directly on 187-item PPI which has shown good reliability and usefulness as a self-report measure assessing psychopathic personality (Lilienfeld & Andrews, 1996).

Malingering was assessed using the Structured Inventory of Malingering Symptomatology (SIMS; Smith, 1993). The SIMS is a 75-item, true/false screening instrument that assesses for both malingered psychopathology and neuropsychological symptoms. The SIMS provides five scale domains as well as an overall score for probable malingering (i.e., Total score): Psychosis, Neurologic Impairment, Amnesic Disorders, Low Intelligence, Affective Disorders and a raw score is compared to empirically derived and validated clinical cutoff scores indicative of likely malingering to assess each subject.

Combat severity and experiences following deployment was assessed using a modified version of the Deployment Risk and Resilience Inventory (DRRI; King, King, & Vogt, 2003) Combat Experiences and Post Battle Experiences modules. The DRRI is a group of self-report scales used to assess risk and resilience factors linked with military deployments. Evidence is available for the internal consistency, reliability, test-retest reliability, discriminant validity, discriminative validity, and criterion-related validity of DRRI scales (King, King, Vogt, Knight, & Samper, 2006). The Combat Experiences and Post Battle Experiences modules of the DRRI yield continuous scores with higher scores indicating greater combat intensity or post battle troubles.

Nicotine use was assessed using the Fagerstorm Test for Nicotine Dependence (Heatherton et al., 2001), a 6-item screen for nicotine dependence.

Reckless Driving Behaviors was assessed using the Kuhn et al., 2010 6-item measure designed to assess aggressive and unsafe driving among male veterans.

Traumatic Brain Injury was assessed using 4 items from the Post-Deployment Health Assessment DD Form 2796, Jan 2008.

Suicidal Ideation was assessed using the Beck Scale for Suicide Ideation-Self Report version (BSS; Beck et al., 1993). The BSS is composed of 19 items, with scores ranging from 0- 38 points. The correlations between the self-reported and clinically rated versions for both inpatients and outpatients were  $>.90$ , which suggests strong concurrent validity. The Cronbach coefficient alphas were also in the .90s and indicated high internal consistency (Beck et al., 1988). There is no empirical evidence to support the use of a specific cut off with the BSS, but increasing scores do reflect increases in suicidal risk. Any positive response to any BSS item may reflect the presence of suicidal intention and should be investigated by a clinician (Beck & Steer, 1993). Thus, in this study any positive response to

any BSS item was followed up immediately with the interview format of the Mini-International Neuropsychiatric Interview (M.I.N.I.) suicide module.

Safety A study clinician administered and scored the M.I.N.I. suicide module prior to administering the remaining study measures. Regardless of score on the MINI suicide module, for any participant thought to be at imminent risk, the assessor contacted local VA facility and informed the mental health provider on call or suicide prevention coordinator, as appropriate. The assessor administered the further risk assessment measure as necessary to gain additional information regarding risk and protective factors and suicidal ideation risk level. Procedures for the MINI results were:

**Low suicide risk** (0-8 points on MINI suicide module):

- The assessor:
  - 1) Performed a “check out” with the participant at the conclusion of the interview.
  - 2) Provided the participant with the VA Suicide Hotline number (1-800-273-TALK), number for local VA.

**Moderate suicide risk** (9-16 points on MINI suicide module)

The assessor:

- 1) Provided the participant with the VA Suicide Hotline number (1-800-273-TALK)
- 2) Provided the participant with local VA/DOD contact information
- 3) Offered to provide local treatment referrals within the next 24 hours
- 4) Offered to contact participant’s mental health provider (e.g., therapist, psychiatrist)
- 5) Took steps to reduce participant risk:
  - Asked participant to remove weapons/medications from his/her access
- 4) Helped participant identify important protective factors:
  - Religious beliefs
  - Dependent children
  - Belief in treatment
  - Future oriented goals
  - Social supports
  - The assessor followed judgment in whether to continue with the rest of the study measures.

**High suicide risk without imminent risk** ( $\geq$  17 points on MINI suicide module)

The assessor:

- 1) Provided VA Suicide Hotline number (1-800-273-TALK)
- 2) Offered to escort participant to the Urgent Care department for further evaluation.
- 3) Offered to provide the participant with information on VA/DOD facilities and/or contact the participant’s treating clinician, within 24 hours. If the participant identified barriers to using VA/DOD facilities, the participant was provided with local/regional resources, including treatment referrals.

- 4) Offered to contact the VA suicide prevention coordinator or mental health provider on call, as appropriate, in closest proximity to the participant.
- 5) Followed up with the participant within 24 hours.
- 6) Offered to mail letter to participant with referral information, including VA Suicide hotline phone number and VA/DOD phone number.

**High suicide risk with imminent risk** ( $\geq 17$  points on the MINI suicide module)

The assessor:

- 1) Further assessed current SI (plan, means, access, intent)
- 2) Provided VA Suicide Hotline number (1-800-273-TALK)
- 3) Escorted participant to the Urgent Care department for further evaluation. A code green can be initiated by the provider for assistance with the participant in accordance with code green policy PCM-116A-001-MH,
- 4) Contacted the VA or DoD suicide prevention coordinator or mental health provider on call, as appropriate, in closest proximity to the participant.
- 5) If the VA/DoD was unresponsive, contact the local law enforcement and inform them of the participant's emergent psychiatric needs.
- 6) Followed up with the participant within 24 hours.
- 7) Followed up with the VA/DoD or local law enforcement within 24 hours to determine the disposition of the case.
  - DO NOT continue current protocol (i.e., do not administer remaining study measures).
  - followed up with the participant's treatment provider to confirm that participant is stable before rescheduling study participation.

An important aspect of the study is that it is as inclusive as possible of the entire range of PTSD experiences; thus, it includes high-risk cases when possible, although data on PCL may remain unavailable until high-risk cases are determined to be stable by contact with the treatment provider.

Analytic procedures and interpretation. Data from this test validation phase offered a second opportunity to compute internal consistency reliability (Cronbach's alpha) for the measures of functional impairment. It is important to re-estimate and reexamine internal consistency on a fresh sample since the estimates derived on the same sample from which the items were selected (Phase II) take advantage of sample-specific covariation and may be somewhat inflated. It is also critical to cross-validate the initial findings with an independent sample in order to ensure that the items which comprise the developed functional impairment scale are optimal.

### Data Analyses for Phase III

Of the 211 veterans who completed Phase III at VA Boston Healthcare System, 9 cases were excluded from psychometric analyses because a validity screen indicated these participants

responded in a biased fashion (e.g., answered all 0s or all 6s to IPF items), and because the measure has reverse coded items, any respondent who answered all 0s or all 6s is likely to not have provided valid responses to the IPF's questions. Of the 179 veterans who completed Phase III at VA Pacific Islands Healthcare System, 14 cases were excluded for similar reasons.

Data from these participants showed that the 80 items of the IPF have strong internal consistency, with a Cronbach's alpha coefficient of .80. For each IPF subscale, Cronbach's alphas ranged from .75 to .94. Additionally, the corrected item-total correlations by subscale range from  $r = .11$  to  $r = .79$ . The means and standard deviations for each IPF subscale are presented below.

*Table 10. Scale Characteristics, VA Boston Healthcare System, Phase III*

IPF scale	No. of Items	Mean	SD	Range	No. of cases	Alpha
Full scale	80	41.11	17.94	0-80.74	6	0.80
Romantic relationship	11	39.97	21.66	0-86.36	80	0.83
Family	7	47.72	23.71	0-97.62	147	0.81
Parenting	10	32.93	22.97	0-75.00	73	0.87
Friendships	8	40.38	22.22	0-95.83	165	0.83
Work	21	23.61	16.21	0-63.49	65	0.89
Education	15	34.69	15.88	0-63.33	30	0.80

Self-care	8	42.18	20.80	0-93.75	190	0.84
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*Table 11. Scale Characteristics, VA Pacific Islands Healthcare System, Phase III*

IPF scale	No. of Items	Mean	SD	Range	No. of cases	Alpha
Full scale	80	42.73	18.37	0-100	0	–
Romantic relationship	11	45.75	22.48	0-90.91	49	0.89
Family	7	48.09	20.29	0-100	98	0.75
Parenting	10	37.25	19.41	0-79.63	39	0.79
Friendships	8	42.86	22.00	0-93.75	115	0.82
Work	21	27.45	19.63	0-80.95	40	0.94
Education	15	34.65	21.83	0-87.78	24	0.92
Self-care	10	45.63	20.25	0-95.83	127	0.82

When examining the data by age groups, we found that within the Boston sample, there were significant differences in functioning in the Parenting scale (see Table 12 below). Individuals in the mid age group of 40-59 reported the greatest difficulty with parenting ( $M=$

38.11,  $SD=23.05$ ), whereas younger individuals, ages 21-39, reportedly significantly lower levels of difficulties in parenting ( $M= 12.42$ ,  $SD=13.71$ ). However, the youngest group's scores were so much lower, that this prompted us to take a closer look at their data to examine if there was any form of social desirability response bias. Social desirability theory suggests that individuals may underreport symptoms to maintain a positive image (O'Leary, 2003), through self-deception and impression management (Sullivan & Scandell, 2003). In impression management, individuals deliberately attempt to manipulate their responses to create specific impressions to an audience (Sullivan & Scandell, 2003). In self-deception, which is thought to be an unconscious process, individuals believe that they have overly positive traits which they in fact do not possess (Sullivan & Scandell, 2003). We examined their scores on the *Balanced Inventory of Desirable Responding-7*, which assesses self-deception and impression management. We found that this subgroup of 11 youngest parents had higher scores on measures of self-deception ( $M=6.72$ ,  $SD=4.51$ ), and impression management ( $M=6.72$ ,  $SD=4.51$ ) compared with the overall mean of the entire sample (self-deception  $M= 3.98$ ,  $SD=3.69$ ; impression management  $M=6.93$ ,  $SD=3.93$ ). Veterans tending toward favorable self-presentations reported the lowest Parenting functional impairment. This suggests Veterans who reported lower Parenting functional impairment may possibly be underreporting their impairment because these are the same participants with elevated self-deception and impression management scores.

Table 12. Functional Impairment Scores by Age Groups, VA Boston Healthcare System, Phase III

IPF SCORES BY AGE GROUP												
IPF Domain Scores	21-39			40-59			60 and older					
	N	M	SD	N	M	SD	N	M	SD	F	df	p
IPF Grand Mean	31	40.00	17.33	131	42.92	17.82	38	35.58	18.30	2.58	199	0.08
Romance	20	43.71	22.07	44	40.65	21.86	19	34.45	20.79	0.94	82	0.40
Family	29	48.19	24.06	96	49.79	24.15	25	39.22	20.32	2.01	149	0.14
Work	13	27.23	11.46	42	25.50	16.97	13	14.41	15.94	3.00	67	0.06
Friendship	28	38.02	25.31	110	42.10	21.68	31	36.42	21.18	0.10	168	0.38
Parenting	11	12.42	13.71	44	37.74	22.91	19	32.33	21.48	6.11	73	<b>0.00*</b>
Education	12	31.87	18.22	16	38.19	15.38	4	29.17	8.18	0.81	31	0.46
Self-care	31	45.09	18.07	130	43.35	20.73	37	34.85	21.87	2.87	197	0.06

When examining the data by age groups in the Pacific Islands sample, we found no significant mean differences between the age groups. However, the oldest age group, those ages 60 and older, tended to report overall better functioning across all domains.

*Table 13. Functional Impairment Scores by Age Groups, VA Pacific Islands Healthcare System, Phase III*

<b>IPF SCORES BY AGE GROUP</b>												
<b>IPF Domain Scores</b>	<b>21-39</b>			<b>40-59</b>			<b>60 and older</b>					
	N	M	SD	N	M	SD	N	M	SD	F	df	<i>p</i>
IPF Grand Mean	17	48.49	16.07	105	43.70	18.65	37	37.33	17.68	2.63	158	0.08
Romance	5	45.15	39.03	39	48.27	20.38	17	40.14	21.87	0.77	60	0.47
Family	10	61.19	21.74	70	47.33	20.05	21	44.12	18.30	2.59	99	0.08
Work	6	34.10	21.88	34	26.70	21.09	13	26.35	14.94	0.38	52	0.67
Friendship	13	47.44	19.12	79	45.01	21.45	30	35.21	23.39	2.54	121	0.08
Parenting	5	37.17	16.62	30	38.62	19.45	17	34.86	20.88	0.20	49	0.82
Education	6	43.31	26.13	18	29.44	20.19	8	39.87	21.63	1.23	29	0.31
Self-care	15	52.22	17.86	90	45.70	20.33	36	42.70	20.82	1.18	140	0.31

In regards to differences between men and women in the Boston sample (see Table 14 below), we found that women reported significantly greater difficulties with attending to activities of self-care and leisure, such as managing their medical care and participating in activities that were fun or relaxing.

*Table 14. Functional Impairment Score Comparisons between Men and Women, VA Boston Healthcare System, Phase III*

<b>IPF SCORES BY GENDER</b>									
<b>IPF Domain Scores</b>	<b>Men</b>			<b>Women</b>					
	N	M	SD	N	M	SD	<i>T</i>	df	<i>p</i>

IPF Grand mean	169	<b>40.38</b>	17.88	31	<b>44.60</b>	18.23	-1.20	198	0.23
Romance	71	<b>40.26</b>	21.44	12	<b>38.27</b>	23.86	0.29	81	0.77
Family	125	<b>46.27</b>	23.21	24	<b>54.38</b>	25.69	-1.54	147	0.13
Work	51	<b>22.69</b>	17.32	17	<b>25.34</b>	12.41	-0.58	66	0.56
Friendship	141	<b>39.58</b>	21.97	27	<b>43.97</b>	23.78	-0.94	166	0.35
Parenting	65	<b>33.60</b>	23.04	10	<b>28.59</b>	23.22	0.64	73	0.53
Education	26	<b>32.36</b>	14.90	6	<b>44.81</b>	17.37	-1.79	30	0.08
Self-care	167	<b>40.67</b>	19.76	31	<b>49.65</b>	24.72	-2.23	196	<b>0.03*</b>

In the Pacific Islands sample (see Table 15 below), we found that women reported significantly greater difficulties with family relationships, which refers to relationships with their parents, siblings, and extended relatives.

*Table 15. Functional Impairment Score Comparisons between Men and Women, VA Pacific Islands Healthcare System, Phase III*

IPF SCORES BY GENDER									
IPF Domain Scores	Men			Women					
	N	M	SD	N	M	SD	T	df	p
IPF Grand Mean	137	<b>41.46</b>	18.40	20	<b>49.42</b>	16.45	-1.83	155	0.07
Romance	51	<b>44.40</b>	22.91	8	<b>50.63</b>	21.78	-0.72	57	0.48
Family	88	<b>46.34</b>	19.85	12	<b>60.91</b>	19.57	-2.39	98	0.02*
Work	48	<b>27.77</b>	20.20	5	<b>24.42</b>	14.27	0.36	51	0.72
Friendship	107	<b>42.19</b>	22.39	14	<b>46.58</b>	19.17	-0.70	119	0.49
Parenting	44	<b>36.70</b>	20.36	7	<b>39.13</b>	14.30	-0.30	49	0.76
Education	28	<b>34.52</b>	22.81	4	<b>35.50</b>	15.49	-0.08	30	0.94
Self-care	121	<b>44.26</b>	19.88	18	<b>52.74</b>	21.26	-1.68	137	0.10



Tables 16 through 19 present the correlations between scores on the IPF and scores on relevant subscales from other measures of functional impairment, from data at VA Boston. All of the correlation coefficients displayed in Tables 16 through 19 were statistically significant, in the range of  $r=.35$  to  $r=.62$  for subscale scores and all of the relationships were in the expected direction. The IPF grand mean correlated strongly with the WHODAS total score,  $r=.72$ ,  $p<.001$ .

Table 16. Correlations of IPF scores with the WHODAS, and SF-36V, VA Boston Healthcare System, Phase III

IPF	WHODAS						VR-36		
	N	Total	Getting along with people	Work & School	Life Activities	Participation in society	N	Social Functioning	Role Emotional
<b>IPF Total</b>	199	.72**	–	–	–	–	199	-0.62**	-.59**
<b>Romantic</b>	83	–	.54**	–	–	–	83	-0.45**	–
<b>Family</b>	150	–	.57**	–	–	–	150	-0.53**	–
<b>Work</b>	68	–	–	.49**	–	–	68	–	-0.55**
<b>Friendships</b>	167	–	.62**	–	–	–	167	-0.51**	–
<b>Parenting</b>	74	–	.48**	–	–	–	n/a	–	–
<b>Education</b>	31	–	–	.63*	–	–	31	–	-0.49*
<b>Self Care</b>	197	–	–	–	.62**	.65**	197	–	-0.56**

Table 17. Correlations of IPF scores with the Sheehan Disability Scale, VA Boston Healthcare System, Phase III

Sheehan Disability Scales				
IPF	N	Work/School	Social/Leisure	Family/home

<b>IPF Total</b>	–	–	–	–
<b>Romantic</b>	83	–	–	0.36*
<b>Family</b>	150	–	–	0.51**
<b>Work</b>	68	.54**	–	–
<b>Friendships</b>	167	–	0.48**	–
<b>Parenting</b>	74	–	–	0.40**
<b>Education</b>	31	.41*	–	–
<b>Self Care</b>	197	–	–	0.60**

Table 18. Correlations of IPF scores with QOLI, VA Boston Healthcare System, Phase III

<b>IPF</b>	<b>N</b>	<b>QOLI</b>							
		<b>Total</b>	<b>Love</b>	<b>Relative s</b>	<b>Work</b>	<b>Friends</b>	<b>Childre n</b>	<b>Learnin g</b>	<b>Play</b>
<b>IPF Total</b>	198	0.61*	–	–	–	–	–	–	–
<b>Romantic</b>	83	–	0.48*	–	–	–	–	–	–
<b>Family</b>	149	–	–	-0.52**	–	–	–	–	–
<b>Work</b>	67	–	–	–	0.35*	–	–	–	–
<b>Friendships</b>	166	–	–	–	–	0.45**	–	–	–
<b>Parenting</b>	73	–	–	–	–	–	-0.48**	–	–
<b>Education</b>	31	–	–	–	–	–	–	-0.61**	–
<b>Self Care</b>	196	–	–	–	–	–	–	–	0.37*

Table 19. Correlations Between IPF scores and WRAIR's measure of functional impairment Question 1, VA Boston Healthcare System, Phase III

<b>Walter Reed Army Research Institute Functional Impairment measure</b>			
<b>IPF</b>	<b>N</b>	Questions 1a-1g (difficulties in social functioning, and personal responsibilities)	Questions 2a-2g (difficulties with work)
<b>IPF Total</b>	196	.72**	-
<b>Romantic</b>	82	.56**	-
<b>Family</b>	148	.58**	-
<b>Work</b>	67	.63**	.50**
<b>Friendships</b>	164	.58**	-
<b>Parenting</b>	74	.49**	-
<b>Education</b>	30	.40*	-
<b>Self Care</b>	195	.73**	-

Tables 20 through 23 present the correlations between scores on the IPF and scores on relevant subscales from other measures of functional impairment from

data collected at the VA Pacific Islands. Similarly to Boston, all of the correlation coefficients were statistically significant, in the range of  $r=.30$  to  $r=.71$  for subscale scores and all of the relationships were in the expected direction. Also, as with the Boston samples, the IPF grand mean correlated strongly with the WHODAS total score,  $r=.70$ ,  $p<.001$ .

*Table 20. Correlations of IPF scores with the WHODAS, and VR-36, VA Pacific Islands Healthcare System, Phase III*

<b>IPF</b>	<b>WHODAS</b>						<b>VR-36</b>		
	<b>N</b>	<b>Total</b>	Getting along with people	Work & School	Life Activities	Participation in society	<b>N</b>	<b>Social Functioning</b>	<b>Role Emotional</b>
<b>IPF Total</b>	159	.70**	-	-	-	-	159	-0.65**	-0.64**
<b>Romantic</b>	61	-	.65**	-	-	-	61	-0.67**	-
<b>Family</b>	100	-	.60**	-	-	-	100	-0.41**	-
<b>Work</b>	53	-	-	.71**	-	-	53	-	-0.59**
<b>Friendships</b>	122	-	.62**	-	-	-	122	-0.52**	-

<b>Parenting</b>	52	-	.62**	-	-	-	n/a	-	-
<b>Education</b>	32	-	-	.63*	-	-	32	-	-0.66**
<b>Self Care</b>	141	-	-	-	.67**	.66**	141	-	-0.65**

Table 21. Correlations of IPF scores with the Sheehan Disability Scale, VA Pacific Islands Healthcare System, Phase III

Sheehan Disability Scales				
IPF	N	Work/School	Social/Leisure	Family/home
<b>IPF Total</b>	-	-	-	-
<b>Romantic</b>	61	-	-	0.68**
<b>Family</b>	100	-	-	0.46**
<b>Work</b>	53	.59**	-	-
<b>Friendships</b>	122	-	0.48**	-
<b>Parenting</b>	52	-	-	0.54**
<b>Education</b>	32	.50*	-	-
<b>Self Care</b>	141	-	-	0.71**

Table 22. Correlations of IPF scores with the QOLI, VA Pacific Islands Healthcare System, Phase III

IPF	N	QOLI							
		Total	Love	Relative	Work	Friend	Childre	Learnin	Play
<b>IPF Total</b>	159	0.60*	-	-	-	-	-	-	-
<b>Romantic</b>	61	-	0.66*	-	-	-	-	-	-

<b>Family</b>	10 0	-	-	-0.56**	-	-	-	-	-
<b>Work</b>	53	-	-	-	0.30*	-	-	-	-
<b>Friendships</b>	12 2	-	-	-	-	0.60**	-	-	-
<b>Parenting</b>	52	-	-	-	-	-	-0.44*	-	-
<b>Education</b>	32	-	-	-	-	-	-	-0.56*	-
<b>Self Care</b>	14 1	-	-	-	-	-	-	-	0.41* *

Table 23. Correlations Between IPF scores and WRAIR's measure of functional impairment Question 1, VA Pacific Islands Healthcare System, Phase III

IPF	Walter Reed Army Research Institute Functional Impairment measure		
	N	Questions 1a-1g (difficulties in social functioning, and personal responsibilities)	Questions 2a-2g (difficulties with work)
<b>IPF Total</b>	139	.69**	-
<b>Romantic</b>	54	.71**	-
<b>Family</b>	89	.48**	-
<b>Work</b>	45	.62**	.77**
<b>Friendships</b>	108	.56**	-
<b>Parenting</b>	48	.53**	-
<b>Education</b>	26	.67**	-
<b>Self Care</b>	122	.72**	-

At the Boston site, we administered an interview of suicide ideation severity using the M.I.N.I. Suicide Module and found that greater difficulties at work was associated with greater suicide ideation ( $r = .45, p < .04$ ). However, these findings are correlational, and we have not tested the directionality of this relationship yet. Additionally, these findings should be interpreted with caution as it is a relatively small sample size ( $n=22$ ) of participants who had been working

in the past month and endorsed at least one item in a suicide pre-screen measure (Beck Scale for Suicide Ideation) given to all participants consented in the study.

*Table 24. Correlations between IPF scores and Suicide Ideation risk, VA Boston Healthcare System, Phase III*

	n	Suicide Risk Score	<i>p</i>
total IPF Score	92	.22*	.03*
IPF Romantic Relationship	31	.25	.17
IPF Family	66	.16	.19
IPF Work	22	.45*	.04*
IPF Friendship	72	.23	.06
IPF Parenting	30	.19	.31
IPF Education	17	.22	.40
IPF Selfcare	91	.20	.06

We also examined the relationship between the IPF and several indices of psychopathology using the Patient Health Questionnaire- Full (PHQ). From the Boston data, we found strong and significant correlations between all of the IPF subscales and grand mean with Depression severity ( $r=.50$  to  $r=.64$ , all  $ps>.001$ ). There was a similar trend with somatization severity, ( $r=.31$  to  $r=.50$ , all  $ps>.001$ ), with the exception that the Education scale was not significantly associated with Somatization severity. It is also interesting to highlight that Alcohol severity was significantly associated with only Education scale scores ( $r=.50$   $p<.05$ ). Further analyses examining a potential influence of response bias on the association reported in functional impairment and alcohol severity may provide better clarification for these seemingly low associations.

*Table 25. Correlations of IPF subscales with PHQ Subscales Severity Scores, VA Boston Healthcare System, Phase III*

	Somatization	Depression	Panic	Other Anxiety	Bulimia	Alcohol

total IPF Score	<b>.48**</b>	<b>.64**</b>	<b>.38**</b>	-.06	<b>.36**</b>	.07
IPF Romantic Relationship	<b>.36**</b>	<b>.53**</b>	.22	<b>.31**</b>	<b>.23*</b>	-.01
IPF Family	<b>.33**</b>	<b>.52**</b>	<b>.34**</b>	-.11	<b>.27**</b>	.03
IPF Work	<b>.45**</b>	<b>.50**</b>	.16	<b>.43**</b>	<b>.39**</b>	.08
IPF Friendship	<b>.40**</b>	<b>.52**</b>	<b>.35**</b>	-.04	<b>.33**</b>	-.02
IPF Parenting	<b>.31**</b>	<b>.52**</b>	<b>.27*</b>	<b>.36**</b>	<b>.36**</b>	.10
IPF Education	.31	<b>.55**</b>	.24	-.16	.36	<b>.50*</b>
IPF Selfcare	<b>.50**</b>	<b>.64**</b>	<b>.33**</b>	-.04	<b>.27**</b>	.06

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

From the Pacific Islands sample, we again found significant, and even stronger, correlations between all of the IPF subscales and grand mean with Depression severity ( $r=.51$  to  $r=.71$ , all  $ps>.001$ ). There was a similar trend with somatization severity, ( $r=.30$  to  $r=.63$ , all  $ps>.001$ ). Alcohol severity was significantly associated with the IPF grand mean ( $r=.23$ ) and impairment in friendships and socializing ( $r=.26$ ) (all  $ps>.05$ ). The IPF subscales and grand mean also correlated strongly and in the expected direction with Panic and Other Anxiety disorders.

*Table 26. Correlations of IPF subscales with PHQ Subscales Severity Scores, VA Pacific Islands Healthcare System, Phase III*

	Somatization	Depression	Panic	Other Anxiety	Bulimia	Alcohol
total IPF Score	<b>.47**</b>	<b>.74**</b>	<b>.55**</b>	<b>.63**</b>	<b>.28**</b>	<b>.23*</b>
IPF Romantic Relationship	<b>.40**</b>	<b>.67**</b>	<b>.40*</b>	<b>.37*</b>	.18	.09
IPF Family	<b>.30**</b>	<b>.51**</b>	<b>.51**</b>	<b>.57**</b>	<b>.25*</b>	.10
IPF Work	<b>.63**</b>	<b>.75**</b>	<b>.56*</b>	<b>.71**</b>	<b>.35*</b>	.16
IPF Friendship	<b>.37**</b>	<b>.66**</b>	<b>.46**</b>	<b>.71**</b>	<b>.22*</b>	<b>.26*</b>
IPF Parenting	<b>.44**</b>	<b>.62**</b>	.24	<b>.61**</b>	.04	.09

IPF Education	<b>.50**</b>	<b>.67**</b>	<b>.81**</b>	<b>.75**</b>	.15	.39
IPF Self care	<b>.48**</b>	<b>.71**</b>	<b>.46**</b>	<b>.55**</b>	<b>.25**</b>	.15

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Lastly, we also examined the relationship between Nicotine dependence and functional impairment. We found that, within the Boston sample, there were no significant associations, although, nicotine dependence approached significance with worse self-care ( $r = .19, p = .054$ ), whereas in the Pacific Islands sample, nicotine dependence was significantly associated with worse self-care ( $r = .25, p = .048$ ) and with worse overall total functioning (IPF grand mean,  $r = .25, p = .032$ ).

We assessed potential Traumatic Brain Injury (TBI) with a self-report measure. Individuals were considered to have screened positive for potential TBI if they reported at least one head injury that involved blast or explosion, vehicular accident, fragment wound or bullet wound above the shoulders, fall or other event (for example, a sports injury to the head) AND there was altered mental state immediately following the injury, loss of consciousness, or inability to recall the event immediately following the injury. Results are presented in Tables 27 and 28. In the Boston sample, we found significant differences in functioning in friendships and socializing, self-care (which includes items relating to managing finances, managing house chores, medical care, as well as leisure activities), and overall IPF grand mean, with individuals with potential TBI exhibiting greater impairment.

*Table 27. Comparisons of Functional Impairment by Probable TBI exposure if individuals reported at least one head injury (or blast) with either altered mental state immediately following the injury, loss of consciousness, or inability to recall the event immediately following the injury, VA Boston Healthcare System, Phase III*

IPF SCORES BY Potential TBI EXPOSURE									
IPF Domain Scores	NO TBI			YES TBI					
	N	M	SD	N	M	SD	<i>t</i>	df	<i>p</i>
IPF Grand mean	98	<b>39.96</b>	18.78	101	<b>43.66</b>	16397	-2.03	197	<b>.04*</b>
Romantic relationship	40	<b>39.36</b>	22.94	43	<b>40.53</b>	20.66	-.24	81	.81
Family	75	<b>46.40</b>	24.72	75	<b>49.05</b>	22.73	-.68	148	.49
Work	38	<b>20.81</b>	17.01	30	<b>26.59</b>	14.52	-1.48	66	.14
Friendship	84	<b>36.35</b>	22.48	83	<b>44.41</b>	21.38	-2.37	165	<b>.02*</b>



Parenting	36	<b>34.16</b>	22.41	38	<b>32.06</b>	23.97	.39	72	.70
Education	10	<b>35.47</b>	17.61	21	<b>34.29</b>	15.82	.19	29	.85
Self-care	97	<b>37.98</b>	21.00	100	<b>46.14</b>	19.96	-2.80	195	<b>.00**</b>

In the Pacific Islands sample, we found that individuals with potential TBI had greater impairments in family functioning (with parents, siblings, relatives, etc), work, friendships and socializing, education, self-care and overall IPF grand mean.

*Table 28. Comparisons of Functional Impairment by Probable TBI exposure if individuals reported at least one head injury (or blast) with either altered mental state immediately following the injury, loss of consciousness, or inability to recall the event immediately following the injury, VA Pacific Islands Healthcare System, Phase III*

IPF SCORES BY Potential TBI EXPOSURE									
IPF Domain Scores	NO TBI			YES TBI					
	N	M	SD	N	M	SD	<i>t</i>	df	<i>p</i>
IPF Grand mean	91	<b>41.00</b>	14.60	68	<b>50.36</b>	15.86	-3.85	157	<b>.00**</b>
Romantic relationship	29	<b>46.46</b>	22.04	32	<b>53.78</b>	18.35	-1.41	59	.16
Family	57	<b>42.75</b>	17.46	43	<b>50.29</b>	17.77	-2.12	98	<b>.03*</b>
Work	25	<b>32.14</b>	15.15	28	<b>42.95</b>	18.76	-2.32	51	<b>.03*</b>
Friendship	66	<b>36.01</b>	16.93	56	<b>50.82</b>	16.37	-4.89	120	<b>.00**</b>
Parenting	28	<b>42.80</b>	18.13	24	<b>47.39</b>	17.64	-.92	50	.36
Education	16	<b>35.44</b>	12.97	16	<b>50.14</b>	18.53	-2.60	30	<b>.01*</b>
Self-care	83	<b>43.12</b>	16.63	58	<b>51.24</b>	17.10	-2.82	139	<b>.00**</b>

In Phase III, we also examined the relationship between malingering and functional impairment. We found that malingering scores were associated in the expected direction (higher malingering scores were associated with higher impairment scores) for all of the IPF subscales, with correlations ranging from .28 (family) to .55 (education).

Table 29. Correlations between IPF scores and scores on malingering symptomatology, VA Boston and Pacific Islands Healthcare Systems, Phase III

	<b>Structured Inventory of Malingered Symptomatology</b>
IPF total score	.44**
Romantic	.39**
Family	.28**
Work	.48**
Friendships	.36**
Parenting	.30**
Education	.55**
Self Care	.39**

We also examined the associations among self-deception and impression management and functional impairment using the *Balanced Inventory of Desirable Responding-7*, which assesses self-deception (SD) and impression management (IM). In our sample, Veterans tending toward favorable self-presentations reported the lowest PTSD severity, Depression severity, and functional impairment.

Table 30. Veterans tending toward favorable self-presentations reported lower functional impairment, VA Boston and Pacific Islands Healthcare Systems, Phase III

	Paulhus Deception Scales		
	Self-Deception	Impression Management	Total
IPF total score	-.36**	-.33**	-.40**
Romantic	-.24**	-.19*	-.26**
Family	-.29**	-.28**	-.33**
Work	-.34**	-.33**	-.42**
Friendships	-.29**	-.30**	-.35**
Parenting	-.45**	-.39**	-.48**
Education	-0.25	-.33*	-.34**
Self Care	-.33**	-.28**	-.36**

Previous research and findings from this project consistently show PTSD to be associated with functional impairment across social, occupational, and educational domains within the veteran population. This prevalence suggests the importance of analyzing other components that may also be associated with functional impairment for veterans both with and without PTSD. We used the Multidimensional Personality Questionnaire-Brief to examine how aspects of personality, particularly negative emotionality (NE), which encompasses stress reaction, alienation, and aggression, and PTSD severity, relate to psychosocial functioning. We focused our analysis on the Boston data. Analysis using multiple regression showed that PTSD severity and NE significantly contributed to the degree of functional impairment ( $R^2 = .482$ ). Specifically, PTSD severity accounted for a stronger effect on functional impairment ( $R^2 = .471$ ), yet NE was also a significant contributing factor alone ( $R^2 = .226$ ) ( $p < .001$ ). Interestingly, in participants without a diagnosis of PTSD, NE had a smaller, yet significant effect on functional impairment ( $R^2 = .125$ ) ( $p < .001$ ). These findings suggest that veterans with higher NE appear to be more vulnerable to overall functional impairment, even without PTSD diagnosis, and also suggest that clinical interventions targeting stress reaction, alienation, and aggression may be helpful in improving veterans' psychosocial functioning.

In our study, we also included another measure of personality characteristics, the Psychopathic Personality Inventory (PPI-short form). Psychopathy has been conceptualized as “a personality disorder characterized by a callous, manipulative nature often found in conjunction with superficial interpersonal relationships and a relative lack of mental distress” (Smith, Edens, & Vaughn 2011). The PPI assesses 8 subscales that assess different aspects of psychopathy. In the Boston data, we found that our measure of functional impairment had positive and significant correlations with the Carefree nonplanfulness scale of the PPI, which assesses an attitude of indifference in planning one's actions (Sandoval et al., 2000); however, an examination of the content of the items in the Carefree nonplanfulness subscale could be understood from a PTSD perspective as items that assess behaviors consistent with difficulties with concentration, loss of interest, and recklessness/impulsivity. Several of the IPF subscales also correlated positively with the Blame Externalization scale, which assesses a tendency to blame others for one's problems and to rationalize one's misbehavior. We also found significant, inverse correlations

between all of the IPF subscales and the Social potency scale, which assesses one's perceived ability to influence and manipulate others and the Stress Immunity scale, which assesses an absence of marked reactions to anxiety-provoking events.

*Table 31. Correlations of IPF scores with the MPQ, VA Boston Healthcare System, Phase III*

IPF	N	PPI							
		Machi velian	Social Potency	Coldhearte d-ness	Carefree Nonplanfu l-ness	Fearles s-ness	Blame External ization	Impulsiv e Non- conform ity	Stress Immuni ty
<b>IPF Total</b>	195	<b>0.25*</b>	<b>-0.40**</b>	0.03	<b>0.37**</b>	0.00	<b>0.37**</b>	<b>0.22*</b>	<b>-0.42**</b>
<b>Romantic</b>	83	<b>0.27*</b>	<b>-0.45**</b>	<b>0.23*</b>	<b>0.22*</b>	0.02	<b>0.25*</b>	0.07	<b>-0.31*</b>
<b>Family</b>	148	<b>0.12*</b>	<b>-0.35**</b>	0.05	<b>0.32**</b>	0.04	<b>0.29**</b>	0.14	<b>-0.34**</b>
<b>Work</b>	68	<b>0.38*</b>	<b>-0.26*</b>	0.16	<b>0.54**</b>	0.13	0.23	0.19	<b>-0.28*</b>
<b>Friendships</b>	163	<b>0.22*</b>	<b>-0.36**</b>	0.09	<b>0.26*</b>	0.02	<b>0.36**</b>	<b>0.19*</b>	<b>-0.39**</b>
<b>Parenting</b>	74	0.12	<b>-0.48**</b>	-0.03	<b>0.45**</b>	-0.04	<b>0.25*</b>	0.14	<b>-0.37*</b>
<b>Education</b>	30	-0.01	<b>-0.46*</b>	-0.32	<b>0.47*</b>	-0.15	0.08	-0.16	<b>-0.39*</b>
<b>Self Care</b>	194	<b>0.21*</b>	<b>-0.26**</b>	-0.01	<b>0.30**</b>	-0.02	<b>0.30**</b>	0.22*	<b>-0.36**</b>

In the Pacific Islands sample, we found that similar patterns emerged as with the Boston data. The IPF had positive and significant correlations with the Carefree nonplanfulness scale; several of the IPF subscales also correlated positively with the Blame Externalization scale. We also found significant, inverse correlations between all of the IPF subscales and the Stress Immunity scale, and almost all of the IPF subscales (with the exception of education) correlated inversely with the Social Potency scale.

Table 32. Correlations of IPF scores with the PPI, VA Pacific Islands Healthcare System, Phase III

IPF	PPI								
	N	Machi velia n	Social Potency	Coldhearte d-ness	Carefree Nonplanfu l-ness	Fearles s-ness	Blame External ization	Impulsiv e Non- conform ity	Stress Immunit y
<b>IPF Total</b>	145	<b>0.31*</b>	<b>-0.46**</b>	0.10	<b>0.38**</b>	0.01	<b>0.40**</b>	0.14	<b>-0.54**</b>
<b>Romantic</b>	56	<b>0.32*</b>	<b>-0.43*</b>	0.16	<b>0.54**</b>	-0.12	<b>0.45**</b>	0.13	<b>-0.64**</b>
<b>Family</b>	92	<b>0.35*</b>	<b>-0.45**</b>	0.03	<b>0.26*</b>	-0.04	<b>0.46**</b>	0.08	<b>-0.49**</b>
<b>Work</b>	47	<b>0.45*</b>	<b>-0.45*</b>	-0.13	<b>0.42*</b>	-0.10	<b>0.32*</b>	0.12	<b>-0.65**</b>
<b>Friendships</b>	113	<b>0.27*</b>	<b>-0.49**</b>	0.11	<b>0.33**</b>	0.03	<b>0.35**</b>	0.14	<b>-0.50**</b>
<b>Parenting</b>	48	<b>0.41*</b>	<b>-0.52**</b>	-0.01	<b>0.30*</b>	-0.08	0.20	0.27	<b>-0.56**</b>
<b>Education</b>	28	0.26	-0.24	0.04	<b>0.39*</b>	-0.01	0.26	0.20	<b>-0.55*</b>
<b>Self Care</b>	128	0.12	<b>-0.30*</b>	0.05	<b>0.33**</b>	-0.03	<b>0.34**</b>	0.10	<b>-0.43**</b>

Test-retest reliability: We assessed for test-retest reliability based on a sample of veterans who returned to the clinic within 30 days after their initial visit. Results are presented in Table 33.

Table 33. Test-retest reliability of the IPF, within a 30 day period, VA Boston Healthcare System, Phase III (N = 51.)

	Time 2							
Time 1	IPF Tota	Romanti	Famil	Wor	Friendship	Parentin	Educatio	Self

	<b>l</b>	<b>c</b>	<b>y</b>	<b>k</b>	<b>s</b>	<b>g</b>	<b>n</b>	<b>Care</b>
<b>IPF Total</b>	<b>.86*</b>	–	–	–	–	–	–	–
<b>Romantic</b>	–	<b>.75**</b>	–	–	–	–	–	–
<b>Family</b>	–	–	<b>.66**</b>	–	–	–	–	–
<b>Work</b>	–	–	–	<b>.82**</b>	–	–	–	–
<b>Friendship s</b>	–	–	–	–	<b>.70**</b>	–	–	–
<b>Parenting</b>	–	–	–	–	–	<b>.93**</b>	–	–
<b>Education</b>	–	–	–	–	–	–	.37	–
<b>Self Care</b>	–	–	–	–	–	–	–	<b>.79*</b>

**Brief IPF:**

Since combat operations began in Iraq in 2003, the Department of Military Psychiatry at the Walter Reed Army Institute of Research (WRAIR) has extensively studied the impact of military operations in Iraq (Operation Iraqi Freedom; OIF) and Afghanistan (Operation Enduring Freedom; OEF) on the health and wellbeing of soldiers and family members. This study is known as the Walter Reed Army Institute of Research (WRAIR) Land Combat Study. This study involves both cross-sectional and longitudinal design methods using anonymous surveys administered with informed consent under an approved research protocol. The study has focused on combat operational units, and over 25,000 surveys have been collected to date. Soldiers from multiple brigade combat teams, both Active Component and National Guard, as well as members of Marine Expeditionary Forces deploying to OIF and OEF have been surveyed before deployment, and / or after returning from deployment. Post-deployment assessments have been conducted at 3-4 months, 6 months, and 12 months after returning from deployment. The surveys include questions about deployment stressors, combat experiences, and unit climate variables such as cohesion and morale. Depression, anxiety, and PTSD are measured using validated self-administered checklists, including the PTSD checklist developed by the National Center for PTSD and the Patient Health Questionnaire. Other outcomes include alcohol use, aggression, and family functioning. The survey data are augmented with analyses of data from other sources, including the Department of Defense Post-deployment Health Assessment, administered to all service members as they return from deployment, and the Defense Medical Surveillance System, which includes electronic records of all health care visits among service members. WRAIR Land Combat Study team members received approvals for us to include the 7 item B-IPF in their survey packet. Once their study was completed, they shared the de-identified data of our survey

from active duty participants that enrolled in their study. Those data are presented in Tables 34 and 35.

*Table 34. Average Brief-IPF Summed Scores by PTSD Caseness, Depression and Combat Exposure, Active Duty*

n=2182 (Iraq/Afghanistan deployers only)	Mean	Median	Mode	SD
All deployers (range = 2 through 49)(n=2140)	12.23	9	7	7.54
<b>PTSD Caseness</b>				
Did not screen positive for PTSD (n=1969)	11.36	8	7	6.46
Screened positive for PTSD (n=164)	22.73	23	7	11.01
<b>Major Depression Caseness</b>				
Did not screen positive for MDD (n=1965)	11.17	8	7	6.21
Screened positive for MDD (n=173)	24.31	24	19*	10.37
<b>Combat Exposure</b>				
No combat exposure (n=518)	10.91	7	7	6.70
Low combat exposure (1 or two experiences)(n=609)	11.50	8	7	6.77
Medium combat exposure (3-5 experiences)(n=520)	12.44	9.5	7	7.38
High combat exposure (6 or more experiences)(n=491)	14.31	11	7	8.92

\*Note: Multiple modes exist. Other modes are 25 and 31.

*N=2,801 for entire sample*

*Table 35. Frequency Distributions of Brief-IPF items, Active Duty*

	% Not at all		% Some-what			% Very Much		n/a	Mean	S D
	1	2	3	4	5	6	7			
n = 2182 (Iraq/Afghanistan deployers only)										
I had trouble taking care of myself (keeping up with household chores, managing medical care, being physically active, doing activities or hobbies that were or relaxing). (n=2148)	65.1	10	8.8	7.8	3.2	2.9	1.5	0.7	1.9	1.5
I had trouble in my romantic relationships with my spouse or partner. (n=2142)	53.5	9.6	9.5	7.3	3.6	4.4	6.7	5.4	2.4	1.9
I had trouble with my family relationships. (n=2145)	62.8	12.1	8	7.2	3.3	2.7	3	1	1.9	1.6
I had trouble at work. (n=2145)	65.5	13.3	8	5.3	2.8	1.4	2.8	0.8	1.8	1.5
I had trouble with my friendships and socializing. (n=2141)	66.8	13.8	6.9	5.6	2.8	1.4	1.9	0.8	1.7	1.4
I had trouble in my relationship with my children. (n=2119)	59.8	6.6	4.4	2.7	1.2	1.1	1.7	22.6	1.6	1.3
I had trouble with training or school. (n=2140)	72.7	9.3	4.8	3.6	2.1	1	1.4	5	1.6	1.2



*Table 36. Bivariate Correlations of the Brief IPF with other measures of Psychosocial Impairment and Psychological Symptoms within Veteran samples, VA Boston and VA Pacific Islands Healthcare Systems, Phase III*

	WHODAS total	VR-36 Role Emotional	Sheehan work/school	Sheehan Social	Sheehan Family	PTSD severity (PCL)	Depression Severity (PHQ)	WRAIR's measure of Functional Impairment Q. 1	Suicide risk severity (MINI suicide)
B-IPF Phase III Boston	.72**	-.55**	.63**	-.60**	.59**	.61**	.59**	.72**	.22*
B-IPF Phase III Pacific Islands	.65**	-.61**	.57**	.62**	.63**	.67**	.65**	.71**	n/a

*Table 37. Correlations of B-IPF with Measures of Symptom Severity, Active Duty*

	Entire Sample (n=2801)	OEF/OIF Deployed (n=2170)	Other Deployed/Never Deployed (n=594)
<i>Correlations with B-IPF Mean</i>			
PCL sum score	0.58**	0.57**	0.63**
PHQ sum score	0.64**	0.62**	0.70**
GAD-7 sum score	0.63**	0.61**	0.68**
Combat exposure sum score	0.16**	0.16**	0.03
PHQ-15	0.57**	0.57**	0.64**
Marital functioning mean score			

*T-tests of Functional Impairment Mean*

PTSD = 0	1.69	1.69	1.65
PTSD = 1	3.41***	3.28** *	3.84***
Depression = 0	1.69	1.70	1.66
Depression = 1	3.95***	3.82** *	4.30***
Anxiety = 0	1.64	1.66	1.58
Anxiety = 1	3.45***	3.34** *	3.77***

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\*\*p < .01

\*\*\*p < .001

Suggested Cutoff Scores for the 80-item IPF Total Score:

With guidance from Dr. Frank Weathers, we followed a rationally derived approach to select cutoff scores to indicate severity of functional impairment on the full scale version of the IPF. Based on examination of frequency distributions of the IPF grand mean across each of the samples, we tested the validity of the following range: IPF grand means in the 0-10 range, no impairment; 11-30, mild impairment; 31-50, moderate impairment; 51-80, severe impairment; 81-100, extreme impairment. Table 38 presents the distribution of participants in each of the samples based on these cutoff scores. Figures 1 through 5 present the mean severity scores of PTSD and depression within each category of impairment from data collected in Phases II and III.

Table 38. Suggested cutoff scores for the IPF grand mean

IPF Total Score (range 0 - 100)	Level of Impairment	Percentage of Participants		
		Phase II	Phase III Boston	Phase III Pacific Islands
0-10	No Impairment	2.7%	5.3%	2.7%
11-30	Mild Impairment	25.0%	22.1%	24.3%
31-50	Moderate Impairment	42.3%	41.1%	35.8%
51-80	Severe Impairment	28.8%	31.6%	35.1%
81-100	Extreme Impairment	1.2%	0.0%	2.0%

Figure 1. PTSD severity scores by IPF impairment distribution. PTSD was assessed using the CAPS interview, VA Boston Healthcare System, Phase II

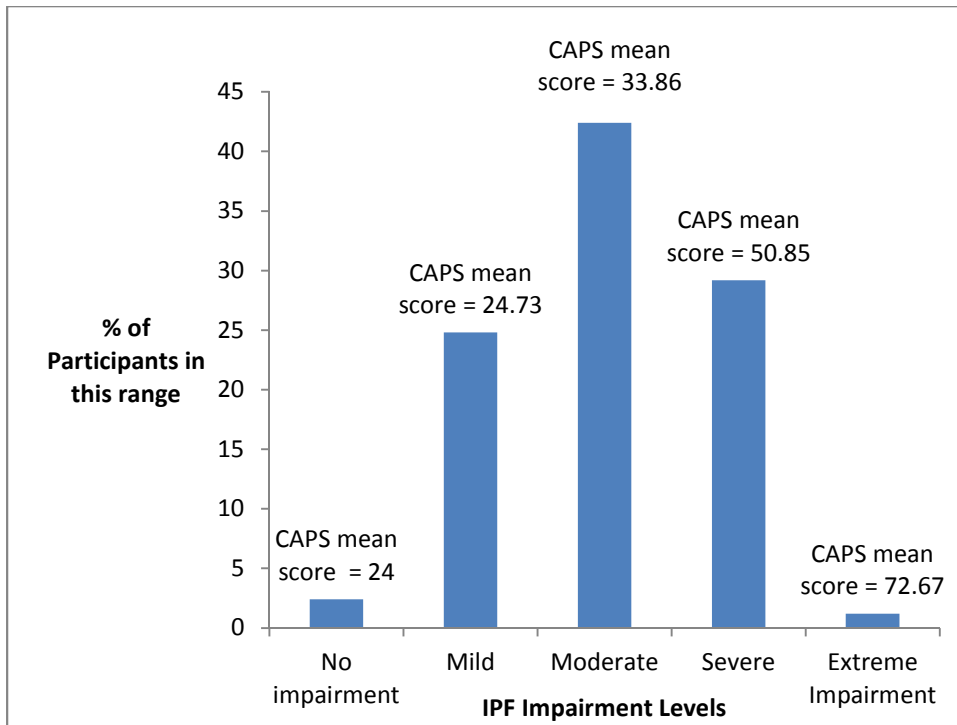


Figure 2. PTSD severity scores by IPF impairment distribution. PTSD was assessed using the PCL, VA Boston Healthcare System, Phase III

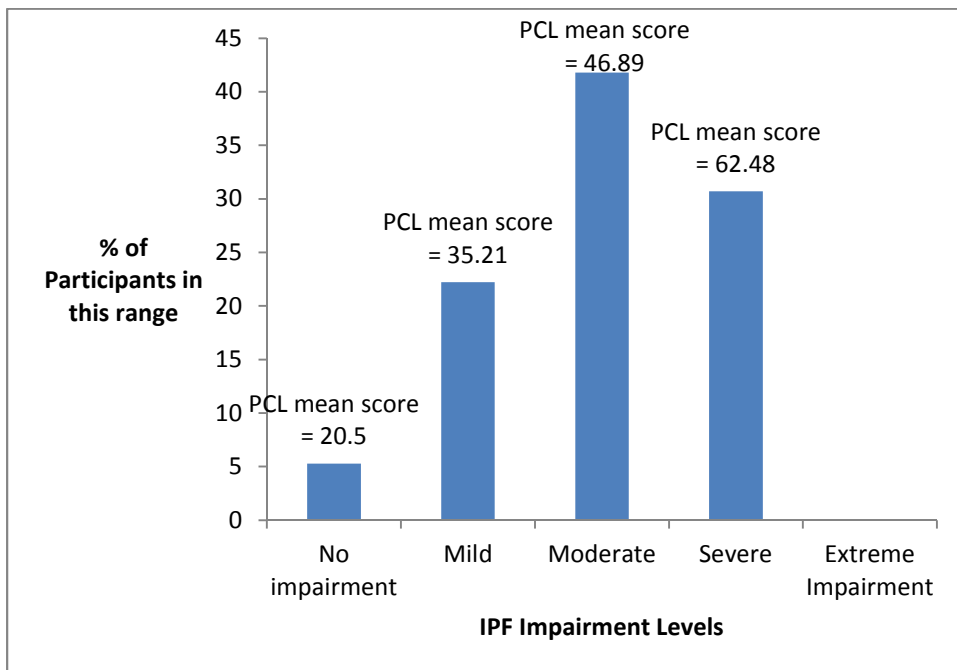


Figure 3. PTSD severity scores by IPF impairment distribution. PTSD was assessed using the PCL, VA Pacific Islands Healthcare System, Phase III

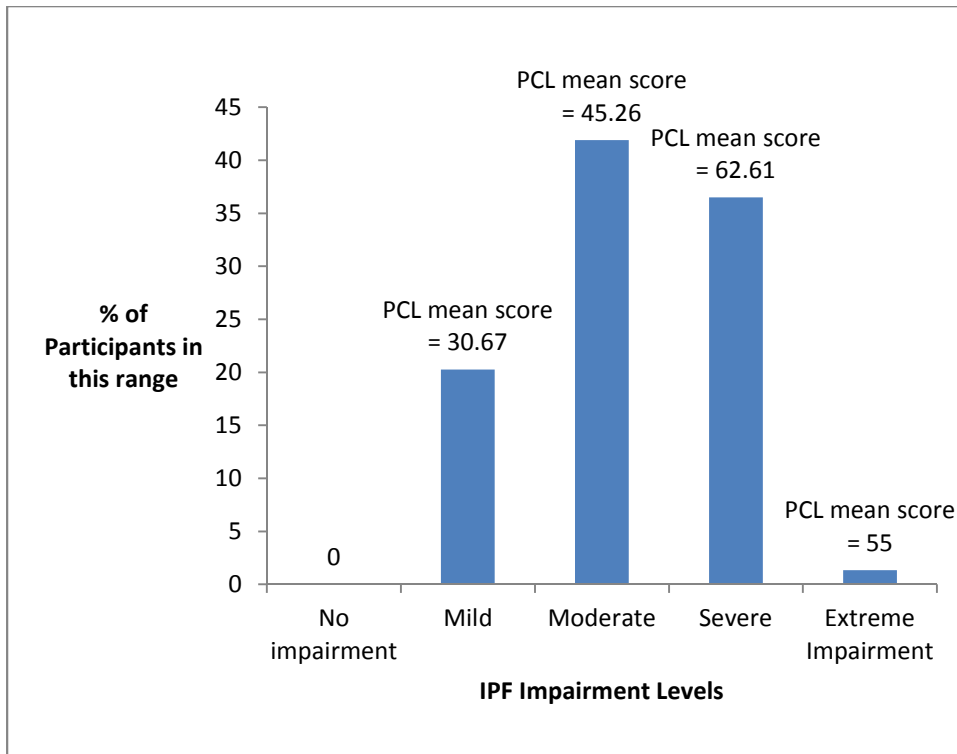


Figure 4. Depression severity scores by IPF impairment distribution. Depression was assessed using the PHQ, VA Boston Healthcare System, Phase III

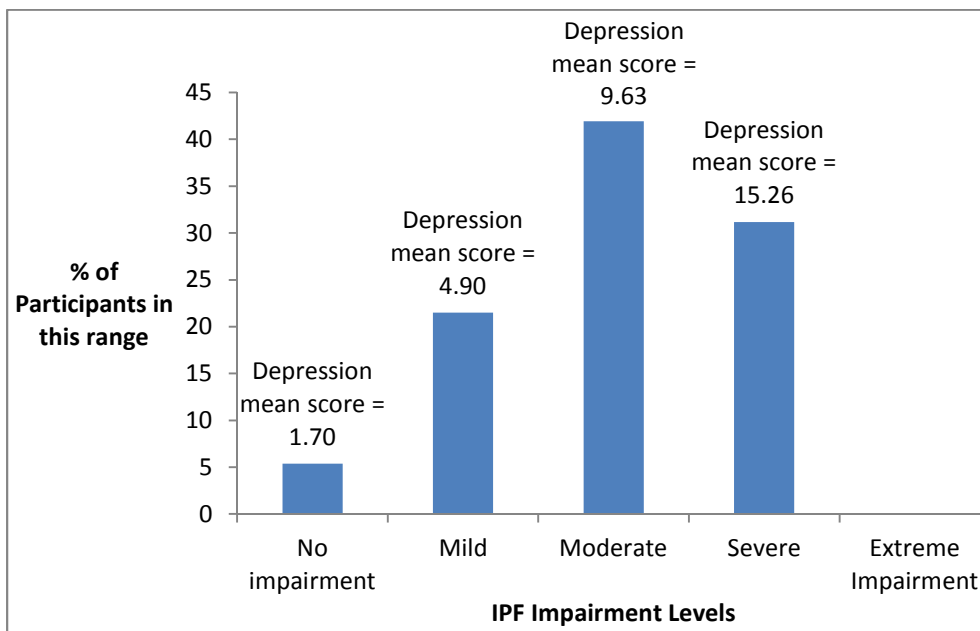
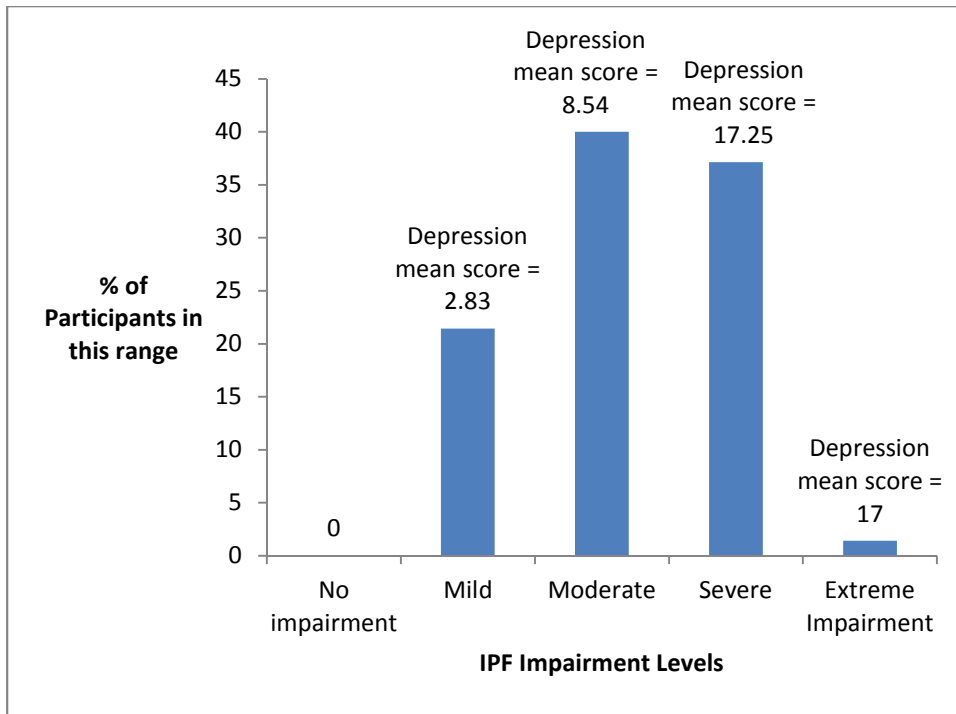


Figure 5. Depression severity scores by IPF impairment distribution. Depression was assessed using the PHQ, VA Pacific Islands Healthcare System, Phase III



In addition to all of the analyses already presented, we have conducted preliminary confirmatory factor analyses using data from our funded project as well as other data that we have been able to simultaneously collect in additional investigations in which we have been able to include the IPF.

This CFA was conducted to evaluate the hypothesized unidimensional structure of the IPF. Given the large number of respondents ( $N = 3,101$ ), the overall sample was stratified by the six subsamples and randomly split into halves. The first half was used to test our initial hypothesis regarding the IPF factor structure and make necessary adjustment to achieve a model with satisfactory fit to the data. After arriving at a factor structure that fit the data well while being consistent with our theory, we cross-validated its fit with data from the second half of the sample. The fit of this model was also evaluated in the full sample.

Prior to conducting the CFA, the 80 IPF items were grouped into 22 item parcels. For each of the seven IPF subscales, two to five items were rationally grouped to create multiple indicators of a latent, domain-specific impairment factor. Parcel variance was homogeneous and ranged from 1.34 to 2.47. The use of parcels, rather than individual items, was based on an internal consistency approach for multifaceted constructs (Little, Cunningham, Shahar, & Widaman,

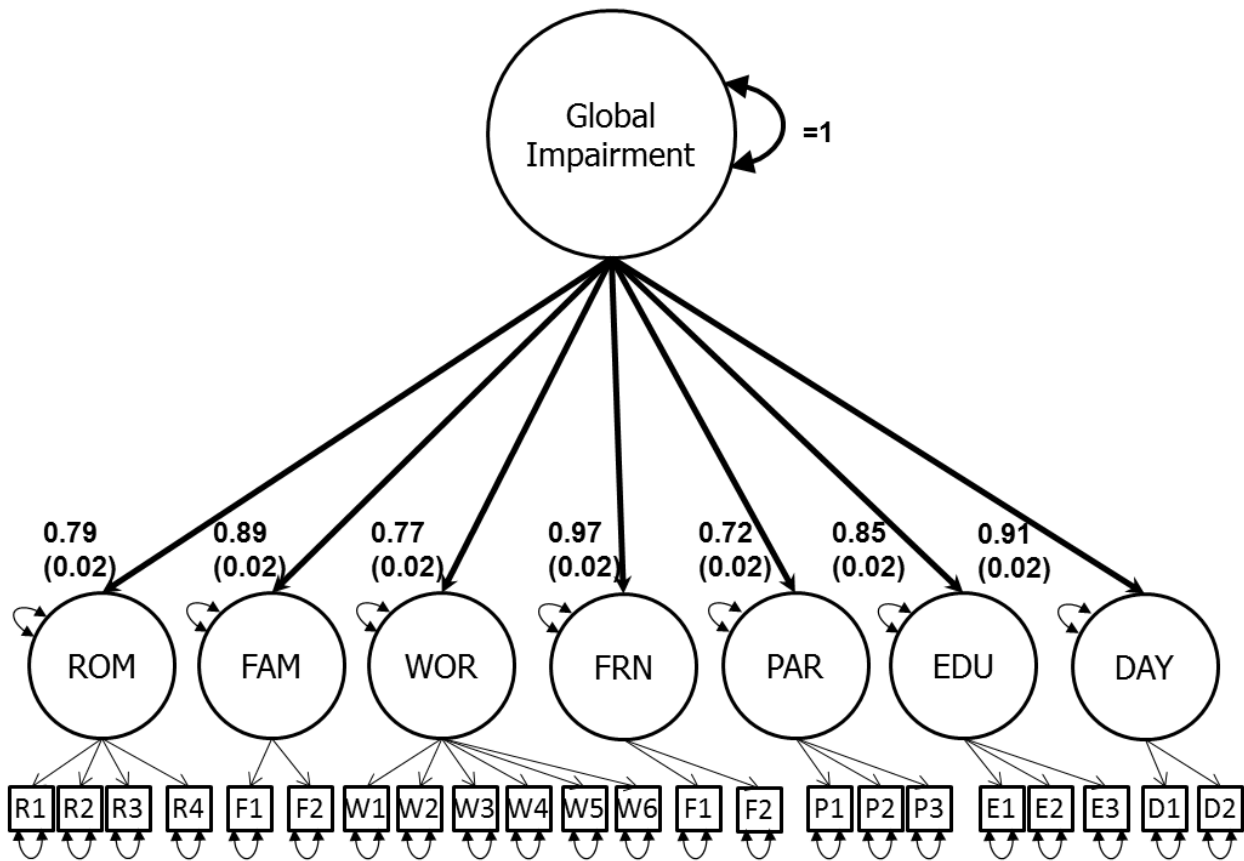
2002). Given the large number of items in the IPF, use of individual items as latent factor indicators may yield spurious correlations or specific sources of variances that are not of theoretic interest. Additionally, parcels tend to produce more stable solutions than item-level data because fewer parameters are estimated in the former case than in the latter.

Models were evaluated using the comparative fit index (CFI; Bentler, 1990), root mean square error of approximation (RMSEA; Steiger, 1990), standardized root mean square residual (SRMR; Bentler, 1995), and Bayesian Information Criterion (BIC; Schwarz, 1978). Across all models, missing data were accommodated by full-information maximum likelihood estimation procedures. Analyses were conducted with Mplus software version 7 (Muthen & Muthen, 1998-2012).

In the hypothesized factor structure, the second-order latent factor represented a unitary construct of global impairment. Subsumed under this second-order latent factor were seven first-order latent factors. Each of the first-order factors reflected functional impairment in a specific domain (e.g., family, work) as measured by an IPF subscale. Therefore, each first-order factor was indicated by parcels comprising items in the corresponding IPF subscales (see configuration in Figure). This model yielded adequate fit to the data from the first half of the sample:  $\chi^2 (df) = 1065.13 (202)$ ,  $p < .0001$ ; CFI = .91; SRMR = .061; RMSEA = .053 (95% CI: .050 -- .056), BIC = 62639.95. Specifically, SRMR was below the cutoff value of .08 for good fit (Hu & Bentler, 1999); RMSEA was below the .08 standard for reasonable fit and approached the .05 standard for close fit (Browne & Cudeck, 1993); and CFI was within the .90 -- .95 range for acceptable fit given good performances on other fit indices (Bentler, 1990). Factor loadings for parcels and first-order latent factors were all in the expected direction and had critical ratios exceeding 2.00 (minimum critical ratio = 10.60).

Based on the above findings, we fit the data to the second half of the sample:  $\chi^2 (df) = 1330.75 (202)$ ,  $p < .0001$ ; CFI = .88; SRMR = .071; RMSEA = .060 (95% CI: .057 -- .063), BIC = 64463.00. In the overall sample, model fit was acceptable and offered further support for our hypothesis:  $\chi^2 (df) = 2188.00 (202)$ ,  $p < .0001$ ; CFI = .89; SRMR = .063; RMSEA = .056 (95% CI: .054 -- .058), BIC = 126687.16. A figural representation of this model fit to the entire sample is displayed in the figure.

Figure 6



Hypothesized structural equation model fit to the entire sample ( $N = 3,101$ ). Circles represent latent variables. Squares represent manifest variables (parcels). Single-headed arrows represent factor loadings. A double-headed arrow represents factor variance or residual variance. Standardized parameter estimates (standard errors in parentheses) are shown here. For clarity, factor loadings on manifest indicators are not displayed. ROM = functional impairment in romantic relationship with spouse or partner; FAM = family-related functional impairment; WOR = work-related impairment; FRN = impairment related to friendships and socializing; PAR = impairment related to parenting; EDU = impairment related to educational pursuits; DAY = day-to-day functional impairment.

### Summary

Our goal was to design and validate a psychometrically sound inventory of PTSD-related functional impairment, the full length Inventory of Psychosocial Functioning (IPF), as well as a brief form (Brief-IPF), for active duty service members and veterans. The inventory included assessment of multiple dimensions of functional impairment and their impact on quality of life. The development and validation of a measure of PTSD-related functional impairment has enormous value from a health care perspective in terms of identifying individuals with the disorder and for promoting more efficient allocation of resources and efforts towards those who



are in most need. Perhaps the biggest impetus to develop a multidimensional PTSD-related functional impairment scale was to address the need to document the full effects of this disorder on sense of self, role functioning, interpersonal relationships, employment and financial status and living conditions as well as to demonstrate the impact of interventions on these areas.

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**Appendix G**

**Other Study Measures**

*General Information*

1) Gender

Male                  Female

2) Date of Birth

\_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Month      Day      Year

3) Race

- White (Not of Hispanic Origin)
- Black (Not of Hispanic Origin)
- American Indian
- Alaskan Native
- Asian or Pacific Islander
- Hispanic - Mexican
- Hispanic – Puerto Rican
- Other Hispanic

4) Religious Preference

- Protestant
- Catholic
- Jewish
- Islamic
- Other
- None

5) How long have you lived at your current address?

\_\_\_\_      \_\_\_\_  
YRS      MOS

6) Is this residence owned by you or your family?

No                  Yes

*Medical Status*

7) How many times in your life have you been hospitalized for medical problems? (Not including detoxification.)

— —

8) How long ago was your last hospitalization for a physical problem?

        
          
 YRS                      MOS

9) Do you have any chronic medical problems which continue to interfere with your life?

No                              Yes \_\_\_\_\_  
(If yes, specify)

10) Are you taking any prescribed medication on a regular basis for a physical problem?

No                              Yes

11) Do you receive a pension for a physical disability?

No                              Yes \_\_\_\_\_  
(If yes, specify)

12) How many days have you experienced medical problems in the past 30?

— —

13) How troubled or bothered have you been by these medical problems in the past 30 days?

0	1	2	3	4
Not at all	Slightly	Moderately	Considerably	Extremely

14) How important to you *now* is treatment for these medical problems?

0	1	2	3	4
Not at all	Slightly	Moderately	Considerably	Extremely

*Employment/Support Status*

15) Education completed (GED = 12 years)

               
YRS      MOS.

16) Training or technical education completed

        
MOS.

17) Do you have a profession, trade, or skill?

No                      Yes \_\_\_\_\_  
(If yes, specify)

18) Do you have a valid driver's license? *(If no, skip question 19).*

No                      Yes

19) Do you have an automobile available for use?

No                      Yes

20) How long was your longest full-time job?

               
YRS      MOS.

21) Usual (or last) occupation:

\_\_\_\_\_

22) Does someone contribute to your support in any way? *(If no, skip question 23)*

No                      Yes

23) If someone contributes to your support, does this constitute the majority of your support?

No                      Yes



24) What was your usual employment pattern over the past 3 years?

- Full time (40 hrs/wk)
- Part time (regular hours)
- Part time (irregular, day work)
- Student
- Service
- Retired/Disability
- Unemployed
- In a controlled environment

25) How many days were you paid for working in the past 30?

— —

How much money did you receive from the following sources in the past 30 days?

- 26) Employment (net income) \_\_\_\_\_
- 27) Unemployment compensation \_\_\_\_\_
- 28) DPA \_\_\_\_\_
- 29) Pension, benefits, or social security \_\_\_\_\_
- 30) Mate, family, or friends (for personal expenses) \_\_\_\_\_
- 31) Illegal \_\_\_\_\_

32) How many people depend on your for the majority of their food, shelter, etc.?

— —

33) How many days have you experienced unemployment problems in the past 30?

— —

34) How troubled or bothered have you been by these employment problems in the past 30 days?

- 0 Not at all
- 1 Slightly
- 2 Moderately
- 3 Considerably
- 4 Extremely

35) How important to you *now* is counseling for these employment problems?

0	1	2	3	4
Not at all	Slightly	Moderately	Considerably	Extremely

*Legal Status*

36) Are you on probation or parole?

No	Yes
----	-----

How many times in your life have you been arrested *and* charged with the following:

- 37) Shoplifting/vandalism \_\_\_\_\_
- 38) Parole/probation violations \_\_\_\_\_
- 39) Drug charges \_\_\_\_\_
- 40) Forgery \_\_\_\_\_
- 41) Weapons offense \_\_\_\_\_
- 42) Burglary, larceny, breaking and entering \_\_\_\_\_
- 43) Robbery \_\_\_\_\_
- 44) Assault \_\_\_\_\_
- 45) Arson \_\_\_\_\_
- 46) Rape \_\_\_\_\_
- 47) Homicide, manslaughter \_\_\_\_\_
- 48) Prostitution \_\_\_\_\_
- 49) Contempt of court \_\_\_\_\_
- 50) Other \_\_\_\_\_

51) How many of these charges resulted in convictions?

\_\_\_\_\_

How many times in your life have you been charged with the following?

52) Disorderly conduct, vagrancy, public intoxication     \_\_\_ \_\_\_

53) Driving while intoxicated     \_\_\_ \_\_\_

54) Major driving violations (reckless driving, speeding,  
no license, etc.)     \_\_\_ \_\_\_

55) How many months were you incarcerated in your life?

\_\_\_ \_\_\_  
MOS.

56) How long was your last incarceration?

\_\_\_ \_\_\_  
MOS.

57) Are you presently awaiting charges, trial, or sentence?

No

Yes

58) How many days in the past 30 were you detained or incarcerated?

\_\_\_ \_\_\_

59) How many days in the past 30 have you engaged in illegal activities for profit?

\_\_\_ \_\_\_

*Family/Social Relationships*

60) Marital Status

Married	Separated
Remarried	Divorced
Widowed	Never Married

61) How long have you been in this marital status? (*If never married, since 18*)

               
YRS      MOS.

62) Are you satisfied with this situation?

No                  Indifferent                  Yes

63) Usual living arrangements (over the past 30 days)

With sexual partner and children

With sexual partner alone

With children alone

With parents

With family

With friends

Alone

Controlled environment

No stable arrangements

64) How long have you lived in these arrangements? (*If with parents or family, since age 18*).

               
YRS      MOS.

65) Are you satisfied with these living arrangements?

No                  Indifferent                  Yes

66) With whom do you spend most of your free time?

Family          Friends          Alone

67) Are you satisfied with spending your free time this way?

No                  Indifferent          Yes

68) How many close friends do you have?

\_\_\_\_\_

69) How many days in the past 30 have you had serious conflicts:

a) With your family?                  \_\_\_\_ \_\_\_\_

b) With other people (excluding family)?          \_\_\_\_ \_\_\_\_

How troubled or bothered have you been in the past 30 days by:

70) Family problems?

0	1	2	3	4
Not at all	Slightly	Moderately	Considerably	Extremely

71) Social problems?

0	1	2	3	4
Not at all	Slightly	Moderately	Considerably	Extremely

*Psychiatric Status*

72) How many times have you been treated for any psychological or emotional problems?

a) In a hospital \_\_\_\_\_

b) As an Outpatient or Private patient \_\_\_\_\_

73a) Do you receive a pension or compensation for a psychiatric disability?

No Yes

b) If you are receiving a pension or compensation, what psychiatric disorder are you receiving compensation for?

\_\_\_\_\_

c) If you are not receiving a pension or compensation for a psychiatric disorder, did you previously apply but your claim was rejected?

No Yes

d) Have you reapplied for a pension or do you have a claim pending?

No Yes

Have you had a significant period (that was not a direct result of drug/alcohol use) in which you have:

74) Experienced serious depression No Yes

75) Experienced serious anxiety or tension No Yes

76) Experienced hallucinations No Yes

77) Experienced trouble understanding, concentrating, or remembering No Yes

78) Experienced trouble controlling violent behavior No Yes

79) Experienced serious thoughts of suicide No Yes

80) Attempted suicide No Yes

81) Been prescribed medication for any psychological/emotional problem No Yes

82) How many days in the past 30 have you experienced these psychological or emotional problems?

— —

*Military Service*

- 83) When were you in the military? \_\_\_\_/\_\_\_\_/\_\_\_\_ to \_\_\_\_/\_\_\_\_/\_\_\_\_  
(e.g., Aug. 5, 1964 - May 7, 1975 is Vietnam era).
- 84) What age were you when you entered the military? \_\_\_\_\_ years
- 85) Did you serve in a warzone or draw hazardous duty pay? YES | NO
- 86) What age were you when you entered the warzone? \_\_\_\_\_ years
- 87) Military theater were you in (don't need to be detailed)?
- |                                       |  |
|---------------------------------------|--|
| <input type="checkbox"/> WWII Europe  | <input type="checkbox"/> Persian Gulf (Gulf 1) |
| <input type="checkbox"/> WWII Pacific | <input type="checkbox"/> Afghanistan (OEF)     |
| <input type="checkbox"/> Korea        | <input type="checkbox"/> Iraq (OIF)            |
| <input type="checkbox"/> Vietnam      | <input type="checkbox"/> none                  |
| <input type="checkbox"/> Bosnia       | <input type="checkbox"/> Other: _____          |
- 88) Which branch of the service did you serve in?  
Army  Air Force  Navy  Marines  Other
- 89) Type of Duty: ACTIVE  GUARD/RESERVES  BOTH  MISSING
- 90) Were you ever exposed to combat? YES  NO  DK/MISSING
- 91) Was your life ever threatened in the military? YES  NO   
DK/MISSING
- 92) Did you ever witness the death/injury of others in the military? YES  NO   
DK/MISSING
- 93) Did you ever have any other intensely frightening, extremely disturbing, or  
traumatic experience in the military? YES  NO  DK/MISSING
- 94) Were you ever a prisoner of war? YES  NO  DK/MISSING
- 95) During wartime, soldiers are sometimes given orders or pressured into doing things  
that they thought were morally wrong. Some vets have reported that they either saw  
or did things that other people would consider to be excessively violent or brutal,  
even in wartime. Did you ever observe others or participate yourself in doing any of  
these kinds of things? (e.g., atrocities: torturing prisoners, mutilating enemy bodies,  
harming civilians.)
- No     Observed others     Participated oneself     Decline to answer



**AUDIT****1. How often do you have a drink containing alcohol?**

- (0) Never (Skip to Questions 9-10)
- (1) Monthly or less
- (2) 2 to 4 times a month
- (3) 2 to 3 times a week
- (4) 4 or more times a week

**2. How many drinks containing alcohol do you have on a typical day when you are drinking?**

- (0) 1 or 2
- (1) 3 or 4
- (2) 5 or 6
- (3) 7, 8, or 9
- (4) 10 or more

**3. How often do you have six or more drinks on one occasion?**

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

**4. How often during the last year have you found that you were not able to stop drinking once you had started?**

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

**5. How often during the last year have you failed to do what was normally expected from you because of drinking?**

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

**6. How often during the last year have you been unable to remember what happened the night before because you had been drinking?**

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

**7. How often during the last year have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?**

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

**8. How often during the last year have you had a feeling of guilt or remorse after drinking?**

- (0) Never
- (1) Less than monthly
- (2) Monthly
- (3) Weekly
- (4) Daily or almost daily

**9. Have you or someone else been injured as a result of your drinking?**

- (0) No
- (2) Yes, but not in the last year
- (4) Yes, during the last year

**10. Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?**

- (0) No
- (2) Yes, but not in the last year
- (4) Yes, during the last year

**(BIDR Version 7)**

by Delroy L. Paulhus, Ph.D.

Client ID: \_\_\_\_\_ Age: \_\_\_\_\_ Gender:  Male  Female Date: \_\_\_\_/\_\_\_\_/\_\_\_\_  
MM DD YY**Instructions:** Read each statement, and circle the number that best describes you, from *Not True* to *Very True* about you.

	Not True				Very True
1. My first impressions of people usually turn out to be right.	1	2	3	4	5
2. It would be hard for me to break any of my bad habits.	1	2	3	4	5
3. I don't care to know what other people really think of me.	1	2	3	4	5
4. I have not always been honest with myself.	1	2	3	4	5
5. I always know why I like things.	1	2	3	4	5
6. When my emotions are aroused, it biases my thinking.	1	2	3	4	5
7. Once I've made up my mind, other people cannot change my opinion.	1	2	3	4	5
8. I am not a safe driver when I exceed the speed limit.	1	2	3	4	5
9. I am fully in control of my own fate.	1	2	3	4	5
10. It's hard for me to shut off a disturbing thought.	1	2	3	4	5
11. I never regret my decisions.	1	2	3	4	5
12. I sometimes lose out on things because I can't make up my mind soon enough.	1	2	3	4	5
13. The reason I vote is because my vote can make a difference.	1	2	3	4	5
14. People don't seem to notice me and my abilities.	1	2	3	4	5
15. I am a completely rational person.	1	2	3	4	5
16. I rarely appreciate criticism.	1	2	3	4	5
17. I am very confident of my judgments.	1	2	3	4	5
18. I have sometimes doubted my ability as a lover.	1	2	3	4	5
19. It's alright with me if some people happen to dislike me.	1	2	3	4	5
20. I'm just an average person.	1	2	3	4	5
21. I sometimes tell lies if I have to.	1	2	3	4	5
22. I never cover up my mistakes.	1	2	3	4	5
23. There have been occasions when I have taken advantage of someone.	1	2	3	4	5
24. I never swear.	1	2	3	4	5
25. I sometimes try to get even rather than forgive and forget.	1	2	3	4	5
26. I always obey laws, even if I'm unlikely to get caught.	1	2	3	4	5
27. I have said something bad about a friend behind his or her back.	1	2	3	4	5
28. When I hear people talking privately, I avoid listening.	1	2	3	4	5
29. I have received too much change from a salesperson without telling him or her.	1	2	3	4	5
30. I always declare everything at customs.	1	2	3	4	5
31. When I was young, I sometimes stole things.	1	2	3	4	5
32. I have never dropped litter on the street.	1	2	3	4	5
33. I sometimes drive faster than the speed limit.	1	2	3	4	5
34. I never read sexy books or magazines.	1	2	3	4	5
35. I have done things that I don't tell other people about.	1	2	3	4	5
36. I never take things that don't belong to me.	1	2	3	4	5
37. I have taken sick-leave from work or school even though I wasn't really sick.	1	2	3	4	5
38. I have never damaged a library book or store merchandise without reporting it.	1	2	3	4	5
39. I have some pretty awful habits.	1	2	3	4	5
40. I don't gossip about other people's business.	1	2	3	4	5

Name: \_\_\_\_\_ Marital Status: \_\_\_\_\_ Age: \_\_\_\_\_ Sex: \_\_\_\_\_

Occupation: \_\_\_\_\_ Education: \_\_\_\_\_

**Directions:** Please carefully read each group of statements below. Circle the one statement in each group that **best** describes how you have been feeling for the **past week, including today**. Be sure to read all of the statements in each group before making a choice.

**Part 1****1 0** I have a moderate to strong wish to live.

1 I have a weak wish to live.

2 I have no wish to live.

**2 0** I have no wish to die.

1 I have a weak wish to die.

2 I have a moderate to strong wish to die.

**3 0** My reasons for living outweigh my reasons for dying.

1 My reasons for living or dying are about equal.

2 My reasons for dying outweigh my reasons for living.

**4 0** I have no desire to kill myself.

1 I have a weak desire to kill myself.

2 I have a moderate to strong desire to kill myself.

**5 0** I would try to save my life if I found myself in a life-threatening situation.

1 I would take a chance on life or death if I found myself in a life-threatening situation.

2 I would not take the steps necessary to avoid death if I found myself in a life-threatening situation.

**If you have circled the zero statements in both Groups 4 and 5 above, then skip down to Group 20. If you have marked a 1 or 2 in either Group 4 or 5, then open here and go to Group 6.**

\_\_\_\_\_ Subtotal Part 1

Part 2

- 6 0** I have brief periods of thinking about killing myself which pass quickly.
- 1 I have periods of thinking about killing myself which last for moderate amounts of time.
  - 2 I have long periods of thinking about killing myself.
- 7 0** I rarely or only occasionally think about killing myself.
- 1 I have frequent thoughts about killing myself.
  - 2 I continuously think about killing myself.
- 8 0** I do not accept the idea of killing myself.
- 1 I neither accept nor reject the idea of killing myself.
  - 2 I accept the idea of killing myself.
- 9 0** I can keep myself from committing suicide.
- 1 I am unsure that I can keep myself from committing suicide.
  - 2 I cannot keep myself from committing suicide.
- 10 0** I would not kill myself because of my family, friends, religion, possible injury from an unsuccessful attempt, etc.
- 1 I am somewhat concerned about killing myself because of my family, friends, religion, possible injury from an unsuccessful attempt, etc.
  - 2 I am not or only a little concerned about killing myself because of my family, friends, religion, possible injury from an unsuccessful attempt, etc.
- 11 0** My reasons for wanting to commit suicide are primarily aimed at influencing other people, such as getting even with people, making people happier, making people pay attention to me, etc.
- 1 My reasons for wanting to commit suicide are not only aimed at influencing other people, but also represent a way of solving my problems.
  - 2 My reasons for wanting to commit suicide are primarily based upon escaping from my problems.
- 12 0** I have no specific plan about how to kill myself.
- 1 I have considered ways of killing myself, but have not worked out the details.
  - 2 I have a specific plan for killing myself.
- 13 0** I do not have access to a method or an opportunity to kill myself.
- 1 The method that I would use for committing suicide takes time, and I really do not have a good opportunity to use this method.
  - 2 I have access or anticipate having access to the method that I would choose for killing myself and also have or shall have the opportunity to use it.
- 14 0** I do not have the courage or the ability to commit suicide.
- 1 I am unsure that I have the courage or the ability to commit suicide.
  - 2 I have the courage and the ability to commit suicide.
- 15 0** I do not expect to make a suicide attempt.
- 1 I am unsure that I shall make a suicide attempt.
  - 2 I am sure that I shall make a suicide attempt.
- 16 0** I have made no preparations for committing suicide.
- 1 I have made some preparations for committing suicide.
  - 2 I have almost finished or completed my preparations for committing suicide.
- 17 0** I have not written a suicide note.
- 1 I have thought about writing a suicide note or have started to write one, but have not completed it.
  - 2 I have completed a suicide note.
- 18 0** I have made no arrangements for what will happen after I have committed suicide.
- 1 I have thought about making some arrangements for what will happen after I have committed suicide.
  - 2 I have made definite arrangements for what will happen after I have committed suicide.
- 19 0** I have not hidden my desire to kill myself from people.
- 1 I have held back telling people about wanting to kill myself.
  - 2 I have attempted to hide, conceal, or lie about wanting to commit suicide.

Go to Group 20.



- 20** 0 I have never attempted suicide.  
1 I have attempted suicide once.  
2 I have attempted suicide two or more times.

If you have previously attempted suicide, please continue with the next statement group.

- 21** 0 My wish to die during the last suicide attempt was low.  
1 My wish to die during the last suicide attempt was moderate.  
2 My wish to die during the last suicide attempt was high.

Subtotal Part 1

Subtotal Part 2

Total Score

PEARSON

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**National Center for PTSD**

**CLINICIAN-ADMINISTERED PTSD SCALE FOR DSM-IV**

**PAST MONTH – 30-ITEM RESEARCH VERSION**

Name: \_\_\_\_\_ ID # : \_\_\_\_\_  
Interviewer: \_\_\_\_\_ Date: \_\_\_\_\_  
Study: \_\_\_\_\_

Dudley D. Blake, Frank W. Weathers, Linda M. Nagy,  
Danny G. Kaloupek, Dennis S. Charney, & Terence M. Keane

National Center for Posttraumatic Stress Disorder

Behavioral Science Division -- Boston VA Medical Center  
Neurosciences Division -- West Haven VA Medical Center

Revised August 2006

**Criterion A. The person has been exposed to a traumatic event in which both of the following were present:**

- (1) the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
- (2) the person's response involved intense fear, helplessness, or horror. Note: In children, this may be expressed instead by disorganized or agitated behavior

I'm going to ask you about the stressful experiences questionnaire you filled out. First I'll ask about the event you said was the worst for you, then I'll ask some questions about how it may have affected you over the past month. Some of these experiences may be hard to remember or may bring back uncomfortable memories or feelings. People often find that talking about them can be helpful, but it's up to you to decide how much you want to tell me. In general I don't need a lot of information – just enough so that I can understand any problems you may have had. As we go along, if you find yourself becoming upset, let me know and we can slow down and talk about it. Also, if you have any questions or you don't understand something, please let me know. Do you have any questions before we start?

The event you said was the worst was (EVENT). What I'd like for you to do is briefly describe what happened and how you felt at the time.

*Index event (specify):*

<p><b>What happened?</b> (How old were you? Who else was involved? How many times did this happen? Life threat? Serious injury?)</p>     <p><b>How did you respond emotionally?</b> (Were you very anxious or frightened? Horrified? Helpless? How so? Were you stunned or in shock so that you didn't feel anything at all? What was that like? What did other people notice about your emotional response? What about after the event -- how did you respond emotionally?)</p>	<p><i>Describe (e.g., event type, victim, perpetrator, age, frequency):</i></p>     <p><u>A. (1)</u> Life threat? NO YES [self ___ other ___] Serious injury? NO YES [self ___ other ___] Threat to physical integrity? NO YES [self ___ other ___]</p> <p><u>A. (2)</u> Intense fear/help/horror? NO YES [during ___ after ___]</p> <p>Criterion A met? NO PROBABLE YES</p>
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For the rest of the interview, I want you to keep (EVENT) in mind as I ask you some questions about how it may have affected you.

I'm going to ask you about twenty-five questions altogether. Most of them have two parts. First I'll ask if you've had a particular problem in the last month, and if so, about how often. Then I'll ask you how much distress or discomfort that problem may have caused you.



<b>Criterion B. The traumatic event is persistently reexperienced in one (or more) of the following ways:</b>
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1. **(B-1)** recurrent and intrusive distressing recollections of the event, including images, thoughts, or perceptions. **Note:** In young children, repetitive play may occur in which themes or aspects of the trauma are expressed.

<p><b><u>Frequency</u></b>  <b>In the past month, have you had any unwanted memories of (EVENT)? What were they like?</b> (<i>What did you remember?</i>) [IF NOT CLEAR:] (<i>Did they ever occur while you were awake, or only in dreams?</i>)          [EXCLUDE IF MEMORIES OCCURRED ONLY DURING DREAMS] <b>How often in the past month?</b></p> <p>0 Never          1 Once or twice          2 Once or twice a week          3 Several times a week          4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much distress or discomfort did these memories cause you? Were you able to put them out of your mind and think about something else?</b> (<i>How hard did you have to try?</i>) <b>How much did they interfere with your life?</b></p> <p>0 None          1 Mild, minimal distress or disruption of activities          2 Moderate, distress clearly present but still manageable, some disruption of activities          3 Severe, considerable distress, difficulty dismissing memories, marked disruption of activities          4 Extreme, incapacitating distress, cannot dismiss memories, unable to continue activities</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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2. **(B-2)** recurrent distressing dreams of the event. **Note:** In children, there may be frightening dreams without recognizable content.

<p><b><u>Frequency</u></b>  <b>In the past month, have you had any unpleasant dreams about (EVENT)? Describe a typical dream.</b> (<i>What happens in them?</i>) <b>How often in the past month?</b></p> <p>0 Never          1 Once or twice          2 Once or twice a week          3 Several times a week          4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much distress or discomfort did these dreams cause you? Did they ever wake you up?</b> [IF YES:] (<i>What happened when you woke up? How long did it take you to get back to sleep?</i>) [LISTEN FOR REPORT OF ANXIOUS AROUSAL, YELLING, ACTING OUT THE NIGHTMARE] (<i>Did your dreams ever affect anyone else? How so?</i>)</p> <p>0 None          1 Mild, minimal distress, may not have awoken          2 Moderate, awoke in distress but readily returned to sleep          3 Severe, considerable distress, difficulty returning to sleep          4 Extreme, incapacitating distress, did not return to sleep</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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3. (B-3) acting or feeling as if the traumatic event were recurring (includes a sense of reliving the experience, illusions, hallucinations, and dissociative flashback episodes, including those that occur on awakening or when intoxicated).  
**Note:** In young children, trauma-specific reenactment may occur.

<p><b><u>Frequency</u></b>  <b>In the past month, have there been times when you suddenly acted or felt as if (EVENT) were happening again?</b> <i>(Have you had any flashbacks about [EVENT]?)</i> [IF NOT CLEAR:] <i>(Did this ever occur while you were awake, or only in dreams?)</i>  <b>[EXCLUDE IF OCCURRED ONLY DURING DREAMS]</b>  <b>Tell me more about that. How often in the past month?</b></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much did it seem as if (EVENT) were happening again?</b> <i>(Were you confused about where you actually were or what you were doing at the time?)</i>  <b>How long did it last? What did you do while this was happening?</b> <i>(Did other people notice your behavior? What did they say?)</i></p> <p>0 No reliving  1 Mild, somewhat more realistic than just thinking about event  2 Moderate, definite but transient dissociative quality, still very aware of surroundings, daydreaming quality  3 Severe, strongly dissociative (reports images, sounds, or smells) but retained some awareness of surroundings  4 Extreme, complete dissociation (flashback), no awareness of surroundings, may be unresponsive, possible amnesia for the episode (blackout)</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____  Sx: Y N</p>
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4. (B-4) intense psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

<p><b><u>Frequency</u></b>  <b>In the past month, have you gotten emotionally upset when something reminded you of (EVENT)?</b> <i>(Has anything triggered bad feelings related to [EVENT]?)</i> <b>What kinds of reminders made you upset? How often in the past month?</b></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much distress or discomfort did (REMINDERS) cause you? How long did it last? How much did it interfere with your life?</b></p> <p>0 None  1 Mild, minimal distress or disruption of activities  2 Moderate, distress clearly present but still manageable, some disruption of activities  3 Severe, considerable distress, marked disruption of activities  4 Extreme, incapacitating distress, unable to continue activities</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____  Sx: Y N</p>
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5. (B-5) physiological reactivity on exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event

<p><b><u>Frequency</u></b>  <b>In the past month, have you had any physical reactions when something reminded you of (EVENT)?</b> (<i>Did your body ever react in some way when something reminded you of [EVENT]?</i>) <b>Can you give me some examples?</b> (<i>Did your heart race or did your breathing change? What about sweating or feeling really tense or shaky?</i>) <b>What kinds of reminders triggered these reactions? How often in the past month?</b></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong were (PHYSICAL REACTIONS)? How long did they last?</b> (<i>Did they last even after you were out of the situation?</i>)</p> <p>0 No physical reactivity  1 Mild, minimal reactivity  2 Moderate, physical reactivity clearly present, may be sustained if exposure continues  3 Severe, marked physical reactivity, sustained throughout exposure  4 Extreme, dramatic physical reactivity, sustained arousal even after exposure has ended</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____  Sx: Y N</p>
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**Criterion C. Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma), as indicated by three (or more) of the following:**

6. (C-1) efforts to avoid thoughts, feelings, or conversations associated with the trauma

<p><b><u>Frequency</u></b>  <b>In the past month, have you tried to avoid thoughts or feelings about (EVENT)?</b> (<i>What kinds of thoughts or feelings did you try to avoid?</i>) <b>What about trying to avoid talking with other people about it?</b> (<i>Why is that?</i>) <b>How often in the past month?</b></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much effort did you make to avoid (THOUGHTS/FEELINGS/CONVERSATIONS)?</b> (<i>What kinds of things did you do? What about drinking or using medication or street drugs?</i>) [CONSIDER ALL ATTEMPTS AT AVOIDANCE, INCLUDING DISTRACTION, SUPPRESSION, AND USE OF ALCOHOL/DRUGS] <b>How much did that interfere with your life?</b></p> <p>0 None  1 Mild, minimal effort, little or no disruption of activities  2 Moderate, some effort, avoidance definitely present, some disruption of activities  3 Severe, considerable effort, marked avoidance, marked disruption of activities, or involvement in certain activities as avoidant strategy  4 Extreme, drastic attempts at avoidance, unable to continue activities, or excessive involvement in certain activities as avoidant strategy</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____  Sx: Y N</p>
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7. (C-2) efforts to avoid activities, places, or people that arouse recollections of the trauma

<p><b><u>Frequency</u></b>  <b>In the past month, have you tried to avoid certain activities, places, or people that reminded you of (EVENT)?</b> <i>(What kinds of things did you avoid? Why is that?)</i> <b>How often in the past month?</b></p> <p>0 Never          1 Once or twice          2 Once or twice a week          3 Several times a week          4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much effort did you make to avoid (ACTIVITIES/PLACES/PEOPLE)?</b> <i>(What did you do instead?)</i> <b>How much did that interfere with your life?</b></p> <p>0 None          1 Mild, minimal effort, little or no disruption of activities          2 Moderate, some effort, avoidance definitely present, some disruption of activities          3 Severe, considerable effort, marked avoidance, marked disruption of activities or involvement in certain activities as avoidant strategy          4 Extreme, drastic attempts at avoidance, unable to continue activities, or excessive involvement in certain activities as avoidant strategy</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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8. (C-3) inability to recall an important aspect of the trauma

<p><b><u>Frequency</u></b>  <b>In the past month, have you had difficulty remembering some important parts of (EVENT)?</b> <b>Tell me more about that.</b> <i>(Do you feel you should be able to remember these things? Why do you think you can't?)</i> <b>In the past month, how much of the important parts of (EVENT) have you had difficulty remembering?</b> <i>(What parts do you still remember?)</i></p> <p>0 None, clear memory          1 Few aspects not remembered (less than 10%)          2 Some aspects not remembered (approx 20-30%)          3 Many aspects not remembered (approx 50-60%)          4 Most or all aspects not remembered (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much difficulty did you have recalling important parts of (EVENT)?</b> <i>(Were you able to recall more if you tried?)</i></p> <p>0 None          1 Mild, minimal difficulty          2 Moderate, some difficulty, could recall with effort          3 Severe, considerable difficulty, even with effort          4 Extreme, completely unable to recall important aspects of event</p> <p><b>QV (specify)</b> _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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## 9. (C-4) markedly diminished interest or participation in significant activities

<p><b><u>Frequency</u></b>  <b>In the past month, have you been less interested in activities that you used to enjoy?</b> (<i>What kinds of things have you lost interest in? Are there some things you don't do at all anymore? Why is that?</i>) [EXCLUDE IF NO OPPORTUNITY, IF PHYSICALLY UNABLE, OR IF DEVELOPMENTALLY APPROPRIATE CHANGE IN PREFERRED ACTIVITIES] <b>In the past month, how many activities have you been less interested in?</b> (<i>What kinds of things do you still enjoy doing?</i>) <b>When did you first start to feel that way?</b> (<i>After the [EVENT]?</i>)</p> <p>0 None  1 Few activities (less than 10%)  2 Some activities (approx 20-30%)  3 Many activities (approx 50-60%)  4 Most or all activities (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong was your loss of interest?</b> (<i>Would you enjoy [ACTIVITIES] once you got started?</i>)</p> <p>0 No loss of interest  1 Mild, slight loss of interest, probably would enjoy after starting activities  2 Moderate, definite loss of interest, but still has some enjoyment of activities  3 Severe, marked loss of interest in activities  4 Extreme, complete loss of interest, no longer participates in any activities</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____</p> <p>Sx: Y N</p>
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## 10. (C-5) feeling of detachment or estrangement from others

<p><b><u>Frequency</u></b>  <b>In the past month, have you felt distant or cut off from other people? What was that like? How much of the time in the past month have you felt that way? When did you first start to feel that way?</b> (<i>After the [EVENT]?</i>)</p> <p>0 None of the time  1 Very little of the time (less than 10%)  2 Some of the time (approx 20-30%)  3 Much of the time (approx 50-60%)  4 Most or all of the time (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong were your feelings of being distant or cut off from others?</b> (<i>Who do you feel closest to? How many people do you feel comfortable talking with about personal things?</i>)</p> <p>0 No feelings of detachment or estrangement  1 Mild, may feel "out of synch" with others  2 Moderate, feelings of detachment clearly present, but still feels some interpersonal connection  3 Severe, marked feelings of detachment or estrangement from most people, may feel close to only one or two people  4 Extreme, feels completely detached or estranged from others, not close with anyone</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____</p> <p>Sx: Y N</p>
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## 11. (C-6) restricted range of affect (e.g., unable to have loving feelings)

<p><b><u>Frequency</u></b>  <b>In the past month, have there been times when you felt emotionally numb or had trouble experiencing feelings like love or happiness? What was that like?</b> (<i>What feelings did you have trouble experiencing?</i>) <b>How much of the time in the past month have you felt that way? When did you first start having trouble experiencing (EMOTIONS)?</b> (<i>After the [EVENT]?</i>)</p> <p>0 None of the time  1 Very little of the time (less than 10%)  2 Some of the time (approx 20-30%)  3 Much of the time (approx 50-60%)  4 Most or all of the time (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How much trouble did you have experiencing (EMOTIONS)?</b> (<i>What kinds of feelings were you still able to experience?</i>) [INCLUDE OBSERVATIONS OF RANGE OF AFFECT DURING INTERVIEW]</p> <p>0 No reduction of emotional experience  1 Mild, slight reduction of emotional experience  2 Moderate, definite reduction of emotional experience, but still able to experience most emotions  3 Severe, marked reduction of experience of at least two primary emotions (e.g., love, happiness)  4 Extreme, completely lacking emotional experience</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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## 12. (C-7) sense of a foreshortened future (e.g., does not expect to have a career, marriage, children, or a normal life span)

<p><b><u>Frequency</u></b>  <b>In the past month, have there been times when you felt there is no need to plan for the future, that somehow your future will be cut short? Why is that?</b> [RULE OUT REALISTIC RISKS SUCH AS LIFE-THREATENING MEDICAL CONDITIONS] <b>How much of the time in the past month have you felt that way? When did you first start to feel that way?</b> (<i>After the [EVENT]?</i>)</p> <p>0 None of the time  1 Very little of the time (less than 10%)  2 Some of the time (approx 20-30%)  3 Much of the time (approx 50-60%)  4 Most or all of the time (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong was this feeling that your future will be cut short?</b> (<i>How long do you think you will live? How convinced are you that you will die prematurely?</i>)</p> <p>0 No sense of a foreshortened future  1 Mild, slight sense of a foreshortened future  2 Moderate, sense of a foreshortened future definitely present, but no specific prediction about longevity  3 Severe, marked sense of a foreshortened future, may make specific prediction about longevity  4 Extreme, overwhelming sense of a foreshortened future, completely convinced of premature death</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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**Criterion D. Persistent symptoms of increased arousal (not present before the trauma), as indicated by two (or more) of the following:**

**13. (D-1) difficulty falling or staying asleep**

<p><b><u>Frequency</u></b>  <b>In the past month, have you had any problems falling or staying asleep? How often in the past month? When did you first start having problems sleeping? (After the [EVENT]?)</b></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p>Sleep onset problems?      Y   N  Mid-sleep awakening?      Y   N  Early a.m. awakening?    Y   N  Total # hrs sleep/night      _____  Desired # hrs sleep/night    _____</p>	<p><b><u>Intensity</u></b>  <b>How much of a problem did you have with your sleep? (How long did it take you to fall asleep? How often did you wake up in the night? Did you often wake up earlier than you wanted to? How many total hours did you sleep each night?)</b></p> <p>0 No sleep problems  1 Mild, slightly longer latency, or minimal difficulty staying asleep (up to 30 minutes loss of sleep)  2 Moderate, definite sleep disturbance, clearly longer latency, or clear difficulty staying asleep (30-90 minutes loss of sleep)  3 Severe, much longer latency, or marked difficulty staying asleep (90 min to 3 hrs loss of sleep)  4 Extreme, very long latency, or profound difficulty staying asleep (&gt; 3 hrs loss of sleep)</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____  Sx: Y N</p>
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**14. (D-2) irritability or outbursts of anger**

<p><b><u>Frequency</u></b>  <b>In the past month, have there been times when you felt especially irritable or showed strong feelings of anger? Can you give me some examples? How often in the past month? When did you first start feeling that way? (After the [EVENT]?)</b></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong was your anger? (How did you show it?) [IF REPORTS SUPPRESSION:] (How hard was it for you to keep from showing your anger?) How long did it take you to calm down? Did your anger cause you any problems?</b></p> <p>0 No irritability or anger  1 Mild, minimal irritability, may raise voice when angry  2 Moderate, definite irritability or attempts to suppress anger, but can recover quickly  3 Severe, marked irritability or marked attempts to suppress anger, may become verbally or physically aggressive when angry  4 Extreme, pervasive anger or drastic attempts to suppress anger, may have episodes of physical violence</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____  Sx: Y N</p>
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## 15. (D-3) difficulty concentrating

<p><b><u>Frequency</u></b>  <b>In the past month, have you found it difficult to concentrate on what you were doing or on things going on around you? What was that like? How much of the time in the past month? When did you first start having trouble concentrating? (After the [EVENT]?)</b></p> <p>0 None of the time  1 Very little of the time (less than 10%)  2 Some of the time (approx 20-30%)  3 Much of the time (approx 50-60%)  4 Most or all of the time (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How difficult was it for you to concentrate? [INCLUDE OBSERVATIONS OF CONCENTRATION AND ATTENTION IN INTERVIEW] How much did that interfere with your life?</b></p> <p>0 No difficulty with concentration  1 Mild, only slight effort needed to concentrate, little or no disruption of activities  2 Moderate, definite loss of concentration but could concentrate with effort, some disruption of activities  3 Severe, marked loss of concentration even with effort, marked disruption of activities  4 Extreme, complete inability to concentrate, unable to engage in activities</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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## 16. (D-4) hypervigilance

<p><b><u>Frequency</u></b>  <b>In the past month, have you been especially alert or watchful, even when there was no real need to be? (Have you felt as if you were constantly on guard?) Why is that? How much of the time in the past month? When did you first start acting that way? (After the [EVENT]?)</b></p> <p>0 None of the time  1 Very little of the time (less than 10%)  2 Some of the time (approx 20-30%)  3 Much of the time (approx 50-60%)  4 Most or all of the time (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How hard did you try to be watchful of things going on around you? [INCLUDE OBSERVATIONS OF HYPERVIGILANCE IN INTERVIEW] Did your (HYPERVIGILANCE) cause you any problems?</b></p> <p>0 No hypervigilance  1 Mild, minimal hypervigilance, slight heightening of awareness  2 Moderate, hypervigilance clearly present, watchful in public (e.g., chooses safe place to sit in a restaurant or movie theater)  3 Severe, marked hypervigilance, very alert, scans environment for danger, exaggerated concern for safety of self/family/home  4 Extreme, excessive hypervigilance, efforts to ensure safety consume significant time and energy and may involve extensive safety/checking behaviors, marked watchfulness during interview</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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17. (D-5) exaggerated startle response

<p><b><u>Frequency</u></b>  <b>In the past month, have you had any strong startle reactions? When did that happen? (What kinds of things made you startle?) How often in the past month? When did you first have these reactions? (After the [EVENT]?)</b></p> <p>0 Never          1 Once or twice          2 Once or twice a week          3 Several times a week          4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong were these startle reactions? (How strong were they compared to how most people would respond?) How long did they last?</b></p> <p>0 No startle reaction          1 Mild, minimal reaction          2 Moderate, definite startle reaction, feels “jumpy”          3 Severe, marked startle reaction, sustained arousal following initial reaction          4 Extreme, excessive startle reaction, overt coping behavior (e.g., combat veteran who “hits the dirt”)</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely          Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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**Criterion E. Duration of the disturbance (symptoms in Criteria B, C, and D) is more than 1 month.**

18. onset of symptoms

<p>[IF NOT ALREADY CLEAR:] <b>When did you first start having (PTSD SYMPTOMS) you’ve told me about? (How long after the trauma did they start? More than six months?)</b></p>	<p>_____ <b>total # months delay in onset</b></p> <p><b>With delayed onset (≥ 6 months)?</b> NO YES</p>
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19. duration of symptoms

<p>[CURRENT] <b>How long have these (PTSD SYMPTOMS) lasted altogether?</b></p> <p>[LIFETIME] <b>How long did these (PTSD SYMPTOMS) last altogether?</b></p>	<p><i>Duration more than 1 month?</i></p> <p><i>Total # months duration</i></p> <p><i>Acute (&lt; 3 months) or chronic</i></p> <p><i>(≥ 3 months)?</i></p>	<p><b><u>Current</u></b></p> <p>NO YES</p> <p>_____</p> <p><b>acute chronic</b></p>	<p><b><u>Lifetime</u></b></p> <p>NO YES</p> <p>_____</p> <p><b>acute chronic</b></p>
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**Criterion F. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.**

20. subjective distress

<p><b>Overall, in the past month, how much have you been bothered by these (PTSD SYMPTOMS) you’ve told me about? [CONSIDER DISTRESS REPORTED ON EARLIER ITEMS]</b></p>	<p>0 None          1 Mild, minimal distress          2 Moderate, distress clearly present but still manageable          3 Severe, considerable distress          4 Extreme, incapacitating distress</p>	<p><b><u>Past month</u></b></p> <p>_____</p>
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## 21. impairment in social functioning

<p><b>In the past month, have these (PTSD SYMPTOMS) affected your relationships with other people? How so?</b> [CONSIDER IMPAIRMENT IN SOCIAL FUNCTIONING REPORTED ON EARLIER ITEMS]</p>	<p>0 No adverse impact 1 Mild impact, minimal impairment in social functioning 2 Moderate impact, definite impairment, but many aspects of social functioning still intact 3 Severe impact, marked impairment, few aspects of social functioning still intact 4 Extreme impact, little or no social functioning</p>	<p><u>Past month</u></p> <p>_____</p>
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## 22. impairment in occupational or other important area of functioning

<p>[IF NOT ALREADY CLEAR] <b>Are you working now?</b></p> <p>IF YES: <b>In the past month, have these (PTSD SYMPTOMS) affected your work or your ability to work? How so?</b> [CONSIDER REPORTED WORK HISTORY, INCLUDING NUMBER AND DURATION OF JOBS, AS WELL AS THE QUALITY OF WORK RELATIONSHIPS. IF PREMORBID FUNCTIONING IS UNCLEAR, INQUIRE ABOUT WORK EXPERIENCES BEFORE THE TRAUMA. FOR CHILD/ADOLESCENT TRAUMAS, ASSESS PRE-TRAUMA SCHOOL PERFORMANCE AND POSSIBLE PRESENCE OF BEHAVIOR PROBLEMS]</p> <p>IF NO: <b>Have these (PTSD SYMPTOMS) affected any other important part of your life?</b> [AS APPROPRIATE, SUGGEST EXAMPLES SUCH AS PARENTING, HOUSEWORK, SCHOOLWORK, VOLUNTEER WORK, ETC.] <b>How so?</b></p>	<p>0 No adverse impact 1 Mild impact, minimal impairment in occupational/other important functioning 2 Moderate impact, definite impairment, but many aspects of occupational/other important functioning still intact 3 Severe impact, marked impairment, few aspects of occupational/other important functioning still intact 4 Extreme impact, little or no occupational/other important functioning</p>	<p><u>Past month</u></p> <p>_____</p>
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## Global Ratings

## 23. global validity

<p>ESTIMATE THE OVERALL VALIDITY OF RESPONSES. CONSIDER FACTORS SUCH AS COMPLIANCE WITH THE INTERVIEW, MENTAL STATUS (E.G., PROBLEMS WITH CONCENTRATION, COMPREHENSION OF ITEMS, DISSOCIATION), AND EVIDENCE OF EFFORTS TO EXAGGERATE OR MINIMIZE SYMPTOMS.</p>	<p>0 Excellent, no reason to suspect invalid responses 1 Good, factors present that may adversely affect validity 2 Fair, factors present that definitely reduce validity 3 Poor, substantially reduced validity 4 Invalid responses, severely impaired mental status or possible deliberate “faking bad” or “faking good”</p>
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## 24. global severity

<p>ESTIMATE THE OVERALL SEVERITY OF PTSD SYMPTOMS. CONSIDER DEGREE OF SUBJECTIVE DISTRESS, DEGREE OF FUNCTIONAL IMPAIRMENT, OBSERVATIONS OF BEHAVIORS IN INTERVIEW, AND JUDGMENT REGARDING REPORTING STYLE.</p>	<p>0 No clinically significant symptoms, no distress and no functional impairment 1 Mild, minimal distress or functional impairment 2 Moderate, definite distress or functional impairment but functions satisfactorily with effort 3 Severe, considerable distress or functional impairment, limited functioning even with effort 4 Extreme, marked distress or marked impairment in two or more major areas of functioning</p>	<p><u>Past month</u></p> <p>_____</p>
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25. global improvement

<p>RATE TOTAL OVERALL IMPROVEMENT SINCE THE PREVIOUS RATING. RATE THE DEGREE OF CHANGE, WHETHER OR NOT, IN YOUR JUDGMENT, IT IS DUE TO TREATMENT.</p>	<p>0 Asymptomatic                  1 Considerable improvement                  2 Moderate improvement                  3 Slight improvement                  4 No improvement                  5 Insufficient information</p>
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**Associated Features**

26. guilt over acts of commission or omission

<p><b><u>Frequency</u></b>                  In the past month, have you felt guilty about anything you did or didn't do during (EVENT)? Tell me more about that. <i>(What do you feel guilty about?)</i>                  How much of the time have you felt that way in the past month?</p> <p>0 None of the time                  1 Very little of the time (less than 10%)                  2 Some of the time (approx 20-30%)                  3 Much of the time (approx 50-60%)                  4 Most or all of the time (more than 80%)</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>                  How strong were these feelings of guilt? How much distress or discomfort did they cause?</p> <p>0 No feelings of guilt                  1 Mild, slight feelings of guilt                  2 Moderate, guilt feelings definitely present, some distress but still manageable                  3 Severe, marked feelings of guilt, considerable distress                  4 Extreme, pervasive feelings of guilt, self-condemnation regarding behavior, incapacitating distress</p> <p><b>QV (specify)</b> _____</p>	<p style="text-align: center;"><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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## 27. survivor guilt [APPLICABLE ONLY IF MULTIPLE VICTIMS]

<p><b><u>Frequency</u></b> In the past month, have you felt guilty about surviving (EVENT) when others did not? Tell me more about that. (<i>What do you feel guilty about?</i>) How much of the time have you felt that way in the past month?</p> <p>0 None of the time 1 Very little of the time (less than 10%) 2 Some of the time (approx 20-30%) 3 Much of the time (approx 50-60%) 4 Most or all of the time (more than 80%) 8 N/A</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b> How strong were these feelings of guilt? How much distress or discomfort did they cause?</p> <p>0 No feelings of guilt 1 Mild, slight feelings of guilt 2 Moderate, guilt feelings definitely present, some distress but still manageable 3 Severe, marked feelings of guilt, considerable distress 4 Extreme, pervasive feelings of guilt, self-condemnation regarding survival, incapacitating distress 8 N/A</p> <p>QV (specify) _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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## 28. a reduction in awareness of his or her surroundings (e.g., “being in a daze”)

<p><b><u>Frequency</u></b> In the past month, have there been times when you felt out of touch with things going on around you, like you were in a daze? What was that like? [DISTINGUISH FROM FLASHBACK EPISODES] How often has that happened in the past month? [IF NOT CLEAR:] (<i>Was it due to an illness or the effects of drugs or alcohol?</i>) When did you first start feeling that way? (<i>After the [EVENT]?</i>)</p> <p>0 Never 1 Once or twice 2 Once or twice a week 3 Several times a week 4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b> How strong was this feeling of being out of touch or in a daze? (<i>Were you confused about where you actually were or what you were doing at the time?</i>) How long did it last? What did you do while this was happening? (<i>Did other people notice your behavior? What did they say?</i>)</p> <p>0 No reduction in awareness 1 Mild, slight reduction in awareness 2 Moderate, definite but transient reduction in awareness, may report feeling “spacy” 3 Severe, marked reduction in awareness, may persist for several hours 4 Extreme, complete loss of awareness of surroundings, may be unresponsive, possible amnesia for the episode (blackout)</p> <p>QV (specify) _____</p> <p>Trauma-related? 1 definite 2 probable 3 unlikely Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____</p> <p>I _____</p> <p>Sx: Y N</p>
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## 29. derealization

<p><b><u>Frequency</u></b>  <b>In the past month, have there been times when things going on around you seemed unreal or very strange and unfamiliar? [IF NO:]</b> <i>(What about times when people you knew suddenly seemed unfamiliar?)</i>  <b>What was that like? How often has that happened in the past month? [IF NOT CLEAR:]</b> <i>(Was it due to an illness or the effects of drugs or alcohol?)</i> <b>When did you first start feeling that way?</b> <i>(After the [EVENT]?)</i></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong was (DEREALIZATION)? How long did it last? What did you do while this was happening?</b> <i>(Did other people notice your behavior? What did they say?)</i></p> <p>0 No derealization  1 Mild, slight derealization  2 Moderate, definite but transient derealization  3 Severe, considerable derealization, marked confusion about what is real, may persist for several hours  4 Extreme, profound derealization, dramatic loss of sense of reality or familiarity</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____</p> <p>Sx: Y N</p>
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## 30. depersonalization

<p><b><u>Frequency</u></b>  <b>In the past month, have there been times when you felt as if you were outside of your body, watching yourself as if you were another person? [IF NO:]</b> <i>(What about times when your body felt strange or unfamiliar to you, as if it had changed in some way?)</i>  <b>What was that like? How often has that happened in the past month? [IF NOT CLEAR:]</b> <i>(Was it due to an illness or the effects of drugs or alcohol?)</i> <b>When did you first start feeling that way?</b> <i>(After the [EVENT]?)</i></p> <p>0 Never  1 Once or twice  2 Once or twice a week  3 Several times a week  4 Daily or almost every day</p> <p><b><u>Description/Examples</u></b></p>	<p><b><u>Intensity</u></b>  <b>How strong was (DEPERSONALIZATION)? How long did it last? What did you do while this was happening?</b> <i>(Did other people notice your behavior? What did they say?)</i></p> <p>0 No depersonalization  1 Mild, slight depersonalization  2 Moderate, definite but transient depersonalization  3 Severe, considerable depersonalization, marked sense of detachment from self, may persist for several hours  4 Extreme, profound depersonalization, dramatic sense of detachment from self</p> <p><b>QV (specify)</b> _____</p> <p><b>Trauma-related?</b> 1 definite 2 probable 3 unlikely  Current _____ Lifetime _____</p>	<p><b><u>Past month</u></b></p> <p>F _____  I _____</p> <p>Sx: Y N</p>
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## Driving Questionnaire

A. Have you driven a car in the past year?

\_\_\_\_ Yes

\_\_\_\_ No

**If you answered “Yes” to the previous question, please complete the following:**

1. Have you engaged in verbal outbursts or make angry hand gestures while driving?

\_\_\_\_ Yes, in the past 4 months

\_\_\_\_ Yes, but over 4 months ago

\_\_\_\_ No, I have never done so

2. Have you tailgated, intentionally cutoff, or chased other drivers?

\_\_\_\_ Yes, in the past 4 months

\_\_\_\_ Yes, but over 4 months ago

\_\_\_\_ No, I have never done so

3. Have you driven after drinking or taking psychoactive drugs?

\_\_\_\_ Yes, in the past 4 months

\_\_\_\_ Yes, but over 4 months ago

\_\_\_\_ No, I have never done so

4. Have you intentionally driven your vehicle into another object (e.g., another car, tree, etc.)?

\_\_\_\_ Yes, in the past 4 months

\_\_\_\_ Yes, but over 4 months ago

\_\_\_\_ No, I have never done so

5. In the past 4 months, how frequently have you driven in an aggressive manner?

**Rarely**

**Sometimes**

**Very regularly**

1

2

3

4

5

6

7

6. In the past 4 months, how regularly did you use seatbelts as a driver or passenger in a car (or other motor vehicle)?

**Rarely**

**Sometimes**

**Very regularly**

1

2

3

4

5

6

7

**DRRI Combat Experiences**

The statements below concern combat experiences during your deployment(s). After you read each statement, please mark the response which describes how often you were exposed to each event over the course of the entire time you were deployed. Please respond to these questions only in reference to experiences that occurred as part of your authorized duties.

<b>During my deployment(s):</b>	<b>Never</b>	<b>A few times over entire deployment</b>	<b>A few times each month</b>	<b>A few times each week</b>	<b>Daily or almost daily</b>
1. I went on combat patrols or missions.	0	0	0	0	0
2. I encountered land or water mines and/or booby traps.	0	0	0	0	0
3. I received hostile incoming fire from small arms, artillery, rockets, mortars, or bombs.	0	0	0	0	0
4. I received "friendly" incoming fire from small arms, artillery, rockets, mortars, or bombs.	0	0	0	0	0
5. I was in a vehicle (for example, a truck, tank, APC, helicopter, plane, or boat) that was under fire.	0	0	0	0	0
6. I was attacked by terrorists or civilians.	0	0	0	0	0
7. I was part of a land or naval artillery unit that fired on the enemy.	0	0	0	0	0
8. I was part of an assault on entrenched or fortified positions.	0	0	0	0	0
9. I took part in an invasion that involved naval and/or land forces.	0	0	0	0	0
10. My unit engaged in battle in which it suffered casualties.	0	0	0	0	0
11. I personally witnessed someone from my unit or an ally unit being seriously wounded or killed.	0	0	0	0	0
12. I personally witnessed soldiers from enemy troops being seriously wounded or killed.	0	0	0	0	0
13. I was wounded or injured in combat.	0	0	0	0	0
14. I fired my weapon at the enemy.	0	0	0	0	0
15. I killed or think I killed someone in combat.	0	0	0	0	0
16. I participated in a support convoy.	0	0	0	0	0

**DRRI post-battle experiences**

**Below are statements about your other experiences while deployed. Please indicate by placing a mark under “yes” or “no” if you ever experienced the following events or situations as part of authorized duties during your deployment(s).**

	<b>Yes</b>	<b>No</b>
1. I observed homes or villages that had been destroyed.	<b>0</b>	<b>0</b>
2. I saw refugees who had lost their homes and belongings as a result of battle.	<b>0</b>	<b>0</b>
3. I saw people begging for food.	<b>0</b>	<b>0</b>
4. I or my unit took prisoners of war.	<b>0</b>	<b>0</b>
5. I interacted with enemy soldiers who were taken as prisoners of war.	<b>0</b>	<b>0</b>
6. I was exposed to the sight, sound, or smell of animals that had been wounded or killed from war-related causes.	<b>0</b>	<b>0</b>
7. I took care of injured or dying people.	<b>0</b>	<b>0</b>
8. I was involved in removing dead bodies after battle.	<b>0</b>	<b>0</b>
9. I was exposed to the sight, sound, or smell of dying men and women.	<b>0</b>	<b>0</b>
10. I saw enemy soldiers after they had been severely wounded or disfigured in combat.	<b>0</b>	<b>0</b>
11. I experienced unwanted sexual activity as a result of force, threat of harm, or manipulation.	<b>0</b>	<b>0</b>
12. I saw civilians after they had been severely wounded or disfigured.	<b>0</b>	<b>0</b>
13. I saw the bodies of dead civilians.	<b>0</b>	<b>0</b>
14. I saw Americans or allies after they had been severely wounded or disfigured in combat.	<b>0</b>	<b>0</b>
15. I saw the bodies of dead Americans or allies.	<b>0</b>	<b>0</b>
16. I saw the bodies of dead enemy soldiers.	<b>0</b>	<b>0</b>



## MIRECC GAF

Level of functioning	Score	Occupational functioning	Social functioning	Score	Symptomatic functioning
Fully functional	100	Works consistently, cares for children consistently, or attends school consistently	Superior functioning	100	None
	90		Socially effective	90	Very minimal
	80		Slight impairment	80	Symptoms in reaction to stressors 91-2 days maximum)
Borderline	70	Misses work fairly frequently, inconsistently able to attend to child care, or misses school frequently	Frequent interpersonal conflicts or withdrawal, but able to maintain some meaningful inter-personal relationships	70	Mild (such as persistent and mildly depressed mood)
	60		60	Moderate (such as moderate depression, occasional panic attacks, flat affect, circumstantial speech)	
Dysfunctional	50	Consistent sheltered work	Able to have coherent conversations	50	Serious (such as suicidal thoughts, severe obsessions or persistent anxiety, frequently intoxicated)
	40		40	Impairment in reality testing or communication (delusions, intrusive hallucinations, speech may be illogical, irrelevant, or obscure)	
	30		30	Behavior is influenced by delusions or hallucinations; serious impairment in communications or judgment (at times incoherent, suicidal preoccupation)	
Dangerous	20	Unable to provide for own food or clothing	Able to interact with others for only brief periods	20	Some dangerousness to self or others; grossly impaired communication (mute or incoherent; suicidal "gestures," violence, manic excitement)
	10		10	Persistent and imminent danger of hurting self or others	
No information	0			0	

NEUROPSYCHOLOGICAL AND MENTAL HEALTH OUTCOMES OF OPERATION IRAQI FREEDOM (OIF):A LONGITUDINAL COHORT STUDY

Form 17 HPQ Relative Absenteeism (modified)

Medical Center

Participant ID

Date

In the past 4 weeks, how often did you...

1 .... miss an entire work day because of problems with your physical or mental health?

# of days:

2 ....miss an entire work day for any other reason (including vacation)?

# of days:

3 ....miss part of a work day for any other reason (including vacation)?

# of days:

4. ....come in early, go home late, or work on your day off?

# of days:

Staff Initials

## LIFE EVENTS CHECKLIST

Listed below are a number of difficult or stressful things that sometimes happen to people. For each event check one or more of the boxes to the right to indicate that: (a) it happened to you personally, (b) you witnessed it happen to someone else, (c) you learned about it happening to someone close to you, (d) you're not sure if it fits, or (e) it doesn't apply to you.

Mark only one item for any single stressful event you have experienced. For events that might fit more than one item description, choose the one that fits best.

Be sure to consider your entire life (growing up as well as adulthood) as you go through the list of events.

<i>Event</i>	<i>Happened to me</i>	<i>Witnessed it</i>	<i>Learned about it</i>	<i>Not Sure</i>	<i>Doesn't apply</i>
1. Natural disaster (for example, flood, hurricane, tornado, earthquake)					
2. Fire or explosion					
3. Transportation accident (for example, car accident, boat accident, train wreck, plane crash)					
4. Serious accident at work, home, or during recreational activity					
5. Exposure to toxic substance (for example, dangerous chemicals, radiation)					
6. Physical assault (for example, being attacked, hit, slapped, kicked, beaten up)					
7. Assault with a weapon (for example, being shot, stabbed, threatened with a knife, gun, bomb)					
8. Sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)					
9. Other unwanted or uncomfortable sexual experience					
10. Combat or exposure to a war-zone (in the military or as a civilian)					
11. Captivity (for example, being kidnapped, abducted, held hostage, prisoner of war)					
12. Life-threatening illness or injury					
13. Severe human suffering					
14. Sudden, violent death (for example, homicide, suicide)					
15. Sudden, unexpected death of someone close to you					
16. Serious injury, harm, or death you caused to someone else					
17. Any other very stressful event or experience					

# M-FAST<sup>TM</sup>

## Interview Booklet

Holly A. Miller, PhD

### Demographic Information

Name: \_\_\_\_\_ Today's date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Gender:  Male  Female Age: \_\_\_\_\_ Education (years): \_\_\_\_\_

Occupation: \_\_\_\_\_

Interviewer: \_\_\_\_\_

Setting:  Clinical inpatient  Clinical outpatient  Forensic  Correctional  
 Other \_\_\_\_\_

### Administration Time

Interview start time: \_\_\_\_\_ Interview stop time: \_\_\_\_\_ Total interview time: \_\_\_\_\_

### M-FAST Scale Scores

Scale	Score
<i>RO</i> (3 items)	
<i>ES</i> (7 items)	
<i>RC</i> (7 items)	
<i>UH</i> (5 items)	
<i>USC</i> (1 item)	
<i>NI</i> (1 item)	
<i>S</i> (1 item)	
<b>Total score</b>	

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**Utility Rates of M-FAST Total Scores  
for the Nonclinical Samples**

M-FAST scores	NPP	PPP	Specificity	Sensitivity
1	1.00	.66	.51	1.00
2	.99	.80	.77	.99
3	.98	.90	.90	.98
4	.94	.96	.96	.93
5	.93	.96	.97	.93
6	.94	1.00	1.00	.93
7	.86	1.00	1.00	.82
8	.81	1.00	1.00	.75
9	.86	1.00	1.00	.83
10	.84	1.00	1.00	.81
11	.82	1.00	1.00	.77
12	.77	1.00	1.00	.69
13	.73	1.00	1.00	.61
14	.68	1.00	1.00	.51
15	.63	1.00	1.00	.39
16	.61	1.00	1.00	.32
17	.59	1.00	1.00	.28
18	.56	1.00	1.00	.18
19	.56	1.00	1.00	.18
20	.54	1.00	1.00	.12
21	.53	1.00	1.00	.08
22	.52	1.00	1.00	.04
23	.52	1.00	1.00	.04
24	.52	1.00	1.00	.04
25	.51	1.00	1.00	.00

*Note.*  $N = 210$ . Base rate of simulated malingering = 51%. NPP = Negative Predictive Power; PPP = Positive Predictive Power.

**Utility Rates of M-FAST Total Scores  
for the Clinical Samples**

M-FAST scores	NPP	PPP	Specificity	Sensitivity
1	1.00	.48	.40	1.00
2	1.00	.52	.49	1.00
3	.99	.57	.60	.97
4	.96	.56	.72	.93
5	.96	.62	.78	.93
6	.97	.68	.83	.93
7	.96	.72	.86	.93
8	.91	.73	.89	.79
9	.87	.88	.95	.73
10	.84	.95	.98	.67
11	.81	1.00	1.00	.57
12	.78	1.00	1.00	.47
13	.75	1.00	1.00	.40
14	.83	1.00	1.00	.63
15	.72	1.00	1.00	.30
16	.71	1.00	1.00	.23
17	.68	1.00	1.00	.13
18	.67	1.00	1.00	.10
19	.66	1.00	1.00	.07
20	.66	1.00	1.00	.03
21	.66	1.00	1.00	.03
22	.66	1.00	1.00	.03
23	.66	1.00	1.00	.03
24	.66	1.00	1.00	.03
25	.66	1.00	1.00	.03

*Note.*  $N = 86$ . Base rate of malingering = 35%. NPP = Negative Predictive Power; PPP = Positive Predictive Power.

Record interview start time:

**Instructions:**

During the next few minutes, I am going to be asking you questions about your psychological symptoms. These questions are given to different people with many different problems, so some of the problems may apply to you and some may not. I will read each question and then read your response options for that question. Just answer each question the best way you can.

**Suggestibility item—Part 1:**

Are you having any problems with hearing a ringing in your ears: *Yes or No?*

- If Yes:** Many people with severe mental illness cannot concentrate for a long time, like doing this interview, without getting a ringing in their ears. Please let me know if the ringing gets worse at any time during this interview.
- If No:** Many people with severe mental illness cannot concentrate for a long time, like doing this interview, without getting a ringing in their ears. Please let me know if you experience any problems with hearing ringing in your ears at any time during this interview.

Items 1-25

Raw score column

<p>1. I often find myself not being able to sit still in a chair: <i>True or False?</i></p> <p>(Observe.) Is the individual's report inconsistent with his or her behavior: <i>Yes or No?</i></p>	<p style="text-align: right;"><i>RO<sub>1</sub></i></p> <p>Yes = 1 No = 0</p>
<p>2. I feel depressed most of the time: <i>True or False?</i></p>	<p style="text-align: right;"><i>ES<sub>1</sub></i></p> <p>True = 1 False = 0</p>

<p>3. Some days I have major mood swings, where for a while I feel great and then I feel depressed: <i>Yes or No?</i></p> <p>If Yes: Does this only happen when you believe that someone is after you: <i>Always, Sometimes, or Never?</i></p>	<p style="text-align: right;"><math>RC_1</math></p> <p>Always = 1 Sometimes = 1 No/Never = 0</p>
<p>4. Do voices tell you to do things: <i>Yes or No?</i></p> <p>If Yes: Do you always obey them: <i>Yes or No?</i></p>	<p style="text-align: right;"><math>UH_1</math></p> <p>Yes = 1 No = 0</p>
<p>5. I feel unusually happy most of the time: <i>True or False?</i></p>	<p style="text-align: right;"><math>ES_2</math></p> <p>True = 1 False = 0</p>
<p>6. I experience hallucinations that last continually for days: <i>True or False?</i></p>	<p style="text-align: right;"><math>UH_2</math></p> <p>True = 1 False = 0</p>
<p>7. Whenever I am sitting down, I have to check under the chair many times to see if anything is under it: <i>True or False?</i></p> <p>(Observe.) Is the individual's report inconsistent with his or her behavior: <i>Yes or No?</i></p>	<p style="text-align: right;"><math>RO_2</math></p> <p>Yes = 1 No = 0</p>
<p>8. Many times during the day, I hear a loud radio playing when there is not a radio on near me: <i>True or False?</i></p>	<p style="text-align: right;"><math>ES_3</math></p> <p>True = 1 False = 0</p>

<p>9. Whenever I see people who are not really there, they are always in black and white: <i>True or False?</i></p>	<p style="text-align: right;"><i>UH</i><sub>3</sub></p> <p>True = 1 False = 0 NA = 0</p>
<p>10. Most times when people are talking to me, I see the words they speak spelled out: <i>True or False?</i></p>	<p style="text-align: right;"><i>ES</i><sub>4</sub></p> <p>True = 1 False = 0</p>
<p>11. Whenever I am sitting in a chair, I have to breathe deep breaths in order not to get sick: <i>True or False?</i></p> <p>(Observe.) Is the individual's report inconsistent with his or her behavior: <i>Yes or No?</i></p>	<p style="text-align: right;"><i>RO</i><sub>3</sub></p> <p>Yes = 1 No = 0</p>
<p>12. Some nights I have nightmares so bad it scares me: <i>Yes or No?</i></p> <p>If Yes: Does this only happen when you have lost a lot of weight: <i>Always, Sometimes, or Never?</i></p>	<p style="text-align: right;"><i>RC</i><sub>2</sub></p> <p>Always = 1 Sometimes = 1 No/Never = 0</p>
<p>13. Lately my eyesight is so good that I think I have a special power: <i>True or False?</i></p>	<p style="text-align: right;"><i>ES</i><sub>5</sub></p> <p>True = 1 False = 0</p>
<p>14. Sometimes it seems as though somebody controls my symptoms, turning them on and off, so I don't know how I'll feel most days: <i>True or False?</i></p>	<p style="text-align: right;"><i>USC</i><sub>1</sub></p> <p>True = 1 False = 0</p>



<p>15. When I hear voices, I hear them from either my right or my left ear, but rarely from both at the same time: <i>True or False?</i></p>	<p style="text-align: right;"><i>ES</i><sub>6</sub></p> <p>True = 1 False = 0 NA = 0</p>
<p>16. Sometimes I am convinced that I have more than one personality: <i>Yes or No?</i></p> <p>If Yes: At those times, do you feel dizzy or lightheaded: <i>Always, Sometimes, or Never?</i></p>	<p style="text-align: right;"><i>RC</i><sub>3</sub></p> <p>Always = 1 Sometimes = 1 No/Never = 0</p>
<p>17. The times when you can't go to sleep, do you often smell strange odors that are not really there: <i>Always, Sometimes, or Never?</i></p>	<p style="text-align: right;"><i>RC</i><sub>4</sub></p> <p>Always = 1 Sometimes = 1 Never = 0 NA = 0</p>
<p>18. When I hear voices, my hands begin to sweat: <i>True or False?</i></p>	<p style="text-align: right;"><i>RC</i><sub>5</sub></p> <p>True = 1 False = 0 NA = 0</p>
<p>19. Often, I get the strange feeling that I am from another planet: <i>True or False?</i></p>	<p style="text-align: right;"><i>ES</i><sub>7</sub></p> <p>True = 1 False = 0</p>
<p>20. On many occasions, I feel things crawling on me when there is nothing there: <i>True or False?</i></p>	<p style="text-align: right;"><i>UH</i><sub>4</sub></p> <p>True = 1 False = 0</p>

<p>21. <b>Sometimes I hear music coming from nowhere: <i>True or False?</i></b></p>	<p style="text-align: right;"><i>UH</i><sub>5</sub></p> <p>True = 1 False = 0</p>
<p>22. <b>When I hear voices, I often develop fears of leaving my house or room: <i>Always, Sometimes, or Never?</i></b></p>	<p style="text-align: right;"><i>RC</i><sub>6</sub></p> <p>Always = 1 Sometimes = 1 Never = 0 NA = 0</p>
<p>23. <b>Most of the time I feel that I don't really matter: <i>True or False?</i></b></p>	<p style="text-align: right;"><i>NI</i><sub>1</sub></p> <p>True = 1 False = 0</p>
<p>24. <b>On many days I feel so bad that I can't even remember my full name: <i>True or False?</i></b></p>	<p style="text-align: right;"><i>RC</i><sub>7</sub></p> <p>True = 1 False = 0</p>
<p>25. <b>If <u>Yes</u> to Suggestibility item—Part 1 (if the individual said that he or she was hearing any ringing at the beginning of the interview), ask the following question:</b></p> <p><b>Has the ringing in your ears gotten worse: <i>Yes or No?</i></b></p> <p><b>If <u>No</u> to Suggestibility item—Part 1 (if the individual stated that he or she was not hearing any ringing at the beginning of the interview), ask the following question:</b></p> <p><b>Are you experiencing any problems with hearing ringing in your ears: <i>Yes or No?</i></b></p>	<p style="text-align: right;"><i>S</i><sub>1</sub></p> <p>Yes = 1 No = 0</p>
<p><b>END OF INTERVIEW</b></p> <p>Record Interview stop time: _____</p>	<p style="text-align: center;"><b>Total score</b></p>

**Scoring Instructions:**

1. Remove the first page using the perforated edge and add the raw scores for Items 1-25. Enter the sum in the Total raw score box at the end of the interview.
2. Add the raw scores for all items with an *identical* scale label and enter each sum in the space provided on page 1 for that scale score.
3. Add the scale scores and enter the sum in the Total score box on page 1.
4. Compare the numbers for the Total score on pages 1 and 7 for consistency.
5. Transfer the Interview start and stop times to the first page of the Interview booklet. Calculate the Total interview time and enter in the space provided on page 1.

**A. MAJOR DEPRESSIVE EPISODE**(  MEANS : GO TO THE DIAGNOSTIC BOXES, CIRCLE **NO** IN ALL DIAGNOSTIC BOXES, AND MOVE TO THE NEXT MODULE)

A1	Have you been consistently depressed or down, most of the day, nearly every day, for the past two weeks?	NO	YES
A2	In the past two weeks, have you been much less interested in most things or much less able to enjoy the things you used to enjoy most of the time?	NO	YES
	<input type="checkbox"/>		
	IS <b>A1</b> OR <b>A2</b> CODED <b>YES</b> ?	NO	YES

**A3 Over the past two weeks, when you felt depressed or uninterested:**

- |   |  |    |       |
|---|--|----|-------|
| a | Was your appetite decreased or increased nearly every day? Did your weight decrease or increase without trying intentionally (i.e., by $\pm 5\%$ of body weight or $\pm 8$ lbs. or $\pm 3.5$ kgs., for a 160 lb./70 kg. person in a month)?<br>IF YES TO EITHER, CODE YES. | NO | YES * |
| b | Did you have trouble sleeping nearly every night (difficulty falling asleep, waking up in the middle of the night, early morning waking or sleeping excessively)?  | NO | YES   |
| c | Did you talk or move more slowly than normal or were you fidgety, restless or having trouble sitting still almost every day?   | NO | YES * |
| d | Did you feel tired or without energy almost every day?   | NO | YES   |
| e | Did you feel worthless or guilty almost every day?   | NO | YES   |
| f | Did you have difficulty concentrating or making decisions almost every day?  | NO | YES   |
| g | Did you repeatedly consider hurting yourself, feel suicidal, or wish that you were dead?   | NO | YES   |

ARE **5** OR MORE ANSWERS (**A1-A3**) CODED **YES**?

NO YES \*

**MAJOR DEPRESSIVE  
EPISODE, CURRENT**IF PATIENT HAS CURRENT MAJOR DEPRESSIVE EPISODE CONTINUE TO A4,  
OTHERWISE MOVE TO MODULE B:

- |    |   |   |                          |    |     |
|----|---|---|--------------------------|----|-----|
| A4 | a | During your lifetime, did you have other episodes of two weeks or more when you felt depressed or uninterested in most things, and had most of the problems we just talked about? | <input type="checkbox"/> | NO | YES |
|----|---|---|--------------------------|----|-----|

- |   |   |
|---|---|
| b | In between 2 episodes of depression, did you ever have an interval of at least 2 months, without any depression and any loss of interest? |
|---|---|

NO YES

**MAJOR DEPRESSIVE  
EPISODE, RECURRENT**

## C. SUICIDALITY

**In the past month did you:**

		NO	YES	Points
C1	Suffer any accident? IF NO TO C1, SKIP TO C2; IF YES, ASK C1a,:	NO	YES	0
C1a	Plan or intend to hurt yourself in that accident either passively or actively? IF NO TO C1a, SKIP TO C2: IF YES, ASK C1b,:	NO	YES	0
C1b	Did you intend to die as a result of this accident?	NO	YES	0
C2	Think that you would be better off dead or wish you were dead?	NO	YES	1
C3	Want to harm yourself or to hurt or to injure yourself?	NO	YES	2
C4	Think about suicide?	NO	YES	6

IF YES, ASK ABOUT THE INTENSITY AND FREQUENCY OF THE SUICIDAL IDEATION:

Frequency		Intensity	
Occasionally	___	Mild	___
Often	___	Moderate	___
Very often	___	Severe	___

→ Can you control these impulses  
and state that you will not act  
on them before seeking help/mental health treatment?

Only score 8 points if response is NO.    NO    YES    8

C5	Have a suicide plan?	NO	YES	8
C6	Take any active steps to prepare to injure yourself or to prepare for a suicide attempt in which you expected or intended to die?	NO	YES	9
C7	Deliberately injure yourself without intending to kill yourself?	NO	YES	4
C8	Attempt suicide? Hoped to be rescued / survive    ___ Expected / intended to die        ___	NO	YES	10

**In your lifetime:**

C9	Did you ever make a suicide attempt?	NO	YES	4
----	--------------------------------------	----	-----	---

IS AT LEAST 1 OF THE ABOVE (EXCEPT C1) CODED YES?

IF YES, ADD THE TOTAL NUMBER OF POINTS FOR THE ANSWERS (C1-C9) CHECKED 'YES' AND SPECIFY THE LEVEL OF SUICIDE RISK AS INDICATED IN THE DIAGNOSTIC BOX:

MAKE ANY ADDITIONAL COMMENTS ABOUT YOUR ASSESSMENT OF THIS PATIENT'S CURRENT AND NEAR FUTURE SUICIDE RISK IN THE SPACE BELOW:

NO	YES
<b>SUICIDE RISK CURRENT</b>	
1-8 points    Low	___
9-16 points    Moderate	___
≥ 17 points    High	___

**Low suicide risk** (0-8 points on MINI suicide module):

- The assessor will:
  - 1) Perform a “check out” with the participant at the conclusion of the interview.
  - 2) Provide the participant with the VA Suicide Hotline number (1-800-273-TALK), number for local VA.

**Moderate suicide risk** (9-16 points on MINI suicide module)

The assessor will:

- 1) Provide the participant with the VA Suicide Hotline number (1-800-273-TALK)
  - 2) Provide the participant with local VA/DOD contact information
  - 3) Offer to provide local treatment referrals within the next 24 hours
  - 4) Offer to contact participant’s mental health provider (e.g., therapist, psychiatrist)
  - 5) Take steps to reduce participant risk:
    - Ask participant to remove weapons/medications from his/her access
  - 6) Help participant identify important protective factors:
    - Religious beliefs
    - Dependent children
    - Belief in treatment
    - Future oriented goals
    - Social supports
- The assessor will follow judgment in whether to continue with the rest of the study measures.

**High suicide risk without imminent risk** ( $\geq$  17 points on MINI suicide module)

The assessor will:

- 1) Provide VA Suicide Hotline number (1-800-273-TALK)
- 2) Offer to escort participant to the Urgent Care department for further evaluation.
- 3) Offer to provide the participant with information on VA/DOD facilities and/or contact the participant’s treating clinician, within 24 hours. If the participant identifies barriers to using VA/DOD facilities, the participant will be provided with local/regional resources, including treatment referrals.
- 4) Offer to contact the VA suicide prevention coordinator or mental health provider on call, as appropriate, in closest proximity to the participant.
- 5) Follow up with the participant within 24 hours.
- 6) Offer to mail letter to participant with referral information, including VA Suicide hotline phone number and VA/DOD phone number.

**High suicide risk with imminent risk** ( $\geq$  17 points on the MINI suicide module)

The assessor will:

- 1) Further assess current SI (plan, means, access, intent)
  - 2) Provide VA Suicide Hotline number (1-800-273-TALK)
  - 3) Escort participant to the Urgent Care department for further evaluation. A code green can be initiated by the provider for assistance with the participant in accordance with code green policy PCM-116A-001-MH,
  - 4) Contact the VA or DoD suicide prevention coordinator or mental health provider on call, as appropriate, in closest proximity to the participant.
  - 5) If the VA/DoD is unresponsive, contact the local law enforcement and inform them of the participant’s emergent psychiatric needs.
  - 6) Follow up with the participant within 24 hours.
  - 7) Follow up with the VA/DoD or local law enforcement within 24 hours to determine the disposition of the case.
- DO NOT continue current protocol (i.e., do not administer remaining study measures).
  - Must follow-up with the participant’s treatment provider to confirm that participant is stable before rescheduling study participation.

Multidimensional Personality Questionnaire  
Brief Form

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In this booklet you will find a series of statements a person might use to describe her/his attitudes, opinions, interests, and other characteristics.

Each statement is followed by two choices, lettered (A) and (B) in the booklet. Read the statement and decide which choice best describes you. Then mark your answer on the answer sheet.

In marking your answers on the answer sheet, be sure that the number of the statement in the booklet is the same as the number on the answer sheet.

Please answer every statement, even if you are not completely sure which answer is right for you.

Read each statement carefully, but don't spend too much time deciding on the answer.

**PLEASE DO NOT WRITE IN THIS BOOKLET!**

1. It is easy for me to become enthusiastic about things I am doing.  
(A) True (B) False
2. I am quite effective at talking people into things.  
(A) True (B) False
3. Some people say that I put my work ahead of too many other things.  
(A) True (B) False
4. I have occasionally felt discouraged about something.  
(A) True (B) False
5. I usually like to spend my free time with friends rather than alone.  
(A) True (B) False
6. Often I get irritated at little annoyances.  
(A) True (B) False
7. Many people try to push me around.  
(A) True (B) False
8. Often when I get angry I am ready to hit someone.  
(A) True (B) False
9. I like to stop and think things over before I do them.  
(A) True (B) False
10. I am often nervous for no reason.  
(A) True (B) False
11. I might enjoy riding in an open elevator to the top of a tall building under construction.  
(A) True (B) False
12. I don't like to see religious authority overturned by so-called progress and logical reasoning.  
(A) True (B) False
13. I can be deeply moved by a sunset.  
(A) True (B) False
14. My table manners are not always perfect.  
(A) True (B) False
15. I enjoy being in the spotlight.  
(A) True (B) False
16. I set very high standards for myself in my work.  
(A) True (B) False
17. When I am unhappy about something,  
(A) I tend to seek the company of a friend  
(B) I prefer to be alone
18. My mood often goes up and down.  
(A) True (B) False
19. I know that certain people would enjoy it if I got hurt.  
(A) True (B) False
20. When someone hurts me, I try to get even.  
(A) True (B) False



21. I am more likely to be fast and careless than to be slow and plodding.  
(A) True (B) False
22. It might be fun and exciting to be in an earthquake.  
(A) True (B) False
23. Strict discipline in the home would prevent much of the crime in our society.  
(A) True (B) False
24. When listening to organ music or other powerful music, I sometimes feel as if I am being lifted into the air.  
(A) True (B) False
25. I have always been extremely courageous in facing difficult situations.  
(A) True (B) False
26. I often feel happy and satisfied for no particular reason.  
(A) True (B) False
27. I often keep working on a problem even if I am very tired.  
(A) True (B) False
28. I am usually happier when I am alone.  
(A) True (B) False
29. I suffer from nervousness.  
(A) True (B) False
30. People often try to take advantage of me.  
(A) True (B) False
31. I admit that I sometimes enjoy hurting someone physically.  
(A) True (B) False
32. Basically I am a happy person.  
(A) True (B) False
33. I often prefer to "play things by ear" rather than to plan ahead.  
(A) True (B) False
34. Of these two situations I would dislike more:  
(A) Having a pilot announce that the plane has engine trouble and it may be necessary to make an emergency landing,  
(B) Working in the fields digging potatoes.
35. The best way to achieve a peaceful world is to improve people's morals.  
(A) True (B) False
36. Sometimes thoughts and images come to me without any effort on my part.  
(A) True (B) False
37. At times I have been envious of someone.  
(A) True (B) False
38. I live a very interesting life.  
(A) True (B) False
39. People find me forceful.  
(A) True (B) False
40. I am a warm person rather than cool and distant.  
(A) True (B) False
41. I often find myself worrying about something.  
(A) True (B) False

42. People often say mean things about me.  
(A) True (B) False
43. I see nothing wrong with stepping on people's toes a little if it is to my advantage.  
(A) True (B) False
44. When faced with a decision I usually take time to consider and weigh all possibilities.  
(A) True (B) False
45. I usually do not like to be a "follower." (A) True (B) False
46. I would enjoy trying to cross the ocean in a small but seaworthy sailboat.  
(A) True (B) False
47. I am opposed to more censorship of books and movies because it would go against free speech.  
(A) True (B) False
48. If I wish I can imagine (or daydream) some things so vividly that it's like watching a good movie or hearing a good story.  
(A) True (B) False
49. My opinions are always completely reasonable.  
(A) True (B) False
50. Every day I do some things that are fun.  
(A) True (B) False
51. When I work with others I like to take charge.  
(A) True (B) False
52. People say that I drive myself hard.  
(A) True (B) False
53. I am too sensitive for my own good.  
(A) True (B) False
54. My "friends" have often betrayed me.  
(A) True (B) False
55. I enjoy a good brawl.  
(A) True (B) False
56. I am very level-headed and usually have both feet on the ground.  
(A) True (B) False
57. Of these two situations I would dislike more:  
(A) Having to walk around all day on a blistered foot,  
(B) Sleeping out on a camping trip in an area where there are rattlesnakes.
58. It is a pretty unfeeling person who does not feel love and gratitude toward her/his parents.  
(A) True (B) False
59. Sometimes I can change noise into music by the way I listen to it.  
(A) True (B) False
60. If I have a humiliating experience I get over it very quickly.  
(A) True (B) False

61. I have at times eaten too much.  
(A) True (B) False
62. I usually find ways to liven up my day.  
(A) True (B) False
63. In most social situations I like to have someone else take the lead.  
(A) True (B) False
64. I am not a terribly ambitious person.  
(A) True (B) False
65. I am more of a "loner" than most people.  
(A) True (B) False
66. I would be more successful if people did not make things difficult for me.  
(A) True (B) False
67. Sometimes I hit people who have done something to deserve it.  
(A) True (B) False
68. I almost never do anything reckless.  
(A) True (B) False
69. Of the these two situations I would dislike more:  
(A) Being out on a sailboat during a great storm at sea,  
(B) Having to stay home every night for two weeks with a sick relative.
70. I would prefer to see:  
(A) Stricter observance of major religious holidays  
(B) Greater acceptance of nontraditional families, like single-parent families

71. I can often somehow sense the presence of another person before I actually see or hear her/him.  
(A) True (B) False
72. I have always been completely fair to others.  
(A) True (B) False
73. People rarely try to take advantage of me.  
(A) True (B) False
74. Most mornings the day ahead looks bright to me.  
(A) True (B) False
75. I am very good at influencing people.  
(A) True (B) False
76. I enjoy putting in long hours.  
(A) True (B) False
77. For me one of the best experiences is the warm feeling of being in a group of good friends.  
(A) True (B) False
78. Occasionally I have strong feelings (like anxiety or anger) without really knowing why.  
(A) True (B) False
79. I would rather turn the other cheek than get even when someone treats me badly.  
(A) True (B) False
80. I often act on the spur of the moment.  
(A) True (B) False
81. Of these two situations I would dislike more:  
(A) Being at the circus when two lions suddenly get loose down in the ring,  
(B) Bringing my whole family to the circus and then not being able to get in because a clerk sold me tickets for the wrong night.
82. Higher standards of conduct are what this country needs most.  
(A) True (B) False
83. The sound of a voice can be so fascinating to me that I can just go on listening to it.  
(A) True (B) False
84. I have at times been angry with someone.  
(A) True (B) False
85. Most days I have moments of real fun or joy.  
(A) True (B) False
86. I often act without thinking.  
(A) True (B) False
87. When it is time to make decisions, others usually turn to me.  
(A) True (B) False
88. I often keep working on a problem long after others would have given up.  
(A) True (B) False
89. I prefer to work alone.  
(A) True (B) False
90. Minor setbacks sometimes irritate me too much.

- (A) True (B) False
91. People often just use me instead of treating me as a person.  
(A) True (B) False
92. I don't like to start a project until I know exactly how to do it.  
(A) True (B) False
93. Of these two situations I would dislike more:  
(A) Riding a long stretch of rapids in a canoe,  
(B) Waiting for someone who's late.
94. I am disgusted by dirty language.  
(A) True (B) False
95. Some music reminds me of pictures or changing patterns of color.  
(A) True (B) False
96. I always tell the entire truth.  
(A) True (B) False
97. I often feel sort of lucky for no special reason.  
(A) True (B) False
98. I do not like to be the center of attention on social occasions.  
(A) True (B) False
99. I work just hard enough to get by without overdoing it.  
(A) True (B) False
100. I have few or no close friends.  
(A) True (B) False
101. I sometimes get very upset and tense as I think of the day's events.  
(A) True (B) False
- (A) True (B) False
102. Some people are against me for no good reason.  
(A) True (B) False
103. I can't help but enjoy it when someone I dislike makes a fool of herself/himself.  
(A) True (B) False
104. I seldom feel really happy.  
(A) True (B) False
105. Of these two situations I would dislike more:  
(A) Being chosen as the "target" for a knife-throwing act,  
(B) Being sick to my stomach for 24 hours.
106. No decent person could ever think of hurting a close friend or relative.  
(A) True (B) False
107. I can so completely wander off into my own thoughts while doing a routine task that I actually forget that I am doing the task and then find a few minutes later that I have finished it.  
(A) True (B) False
108. Sometimes I'm a bit lazy.  
(A) True (B) False
109. Every day interesting and exciting things happen to me.  
(A) True (B) False
110. I am quite good at convincing others to see things my way.  
(A) True (B) False

111. I push myself to my limits.  
(A) True (B) False
112. I am happiest when I am with people most of the time.  
(A) True (B) False
113. I am often troubled by guilt feelings.  
(A) True (B) False
114. I know that people have spread false rumors about me on purpose.  
(A) True (B) False
115. I like to watch a good, vicious fight.  
(A) True (B) False
116. Before I get into a new situation I like to find out what to expect from it.  
(A) True (B) False
117. I perform for an audience whenever I can.  
(A) True (B) False
118. I am not at all sorry to see many of the traditional values change.  
(A) True (B) False
119. I can sometimes recall certain past experiences in my life so clearly and vividly that it is like living them again, or almost so.  
(A) True (B) False
120. Never in my whole life have I taken advantage of anyone.  
(A) True (B) False
121. In my spare time I usually find something interesting to do.  
(A) True (B) False
122. In social situations I usually allow others to dominate the conversation.  
(A) True (B) False
123. I like to try difficult things.  
(A) True (B) False
124. I prefer not to "open up" too much, not even to friends.  
(A) True (B) False
125. My mood sometimes changes from happy to sad, or sad to happy, without good reason.  
(A) True (B) False
126. I have often been lied to.  
(A) True (B) False
127. Sometimes I just like to hit someone.  
(A) True (B) False
128. I am a cautious person.  
(A) True (B) False
129. Of these two situations I would dislike more:  
(A) Being in a flood,  
(B) Carrying a ton of bricks from the backyard into the basement.
130. At times I somehow feel the presence of someone who is not physically there.  
(A) True (B) False

131. I have sometimes felt slightly hesitant about helping someone who asked me to.  
(A) True (B) False
132. My feelings are hurt rather easily.  
(A) True (B) False
133. For me life is a great adventure.  
(A) True (B) False
134. I do not like to organize other people's activities.  
(A) True (B) False
135. I find it really hard to give up on a project when it proves too difficult.  
(A) True (B) False
136. I often prefer not to have people around me.  
(A) True (B) False
137. I often lose sleep over my worries.  
(A) True (B) False
138. When people are friendly they usually want something from me.  
(A) True (B) False
139. When people insult me, I try to get even.  
(A) True (B) False
140. I usually make up my mind through careful reasoning.  
(A) True (B) False
141. Of these two situations I would dislike more:  
(A) Being seasick every day for a week while on an ocean voyage,  
(B) Having to stand on the window ledge of the 25th Floor of a hotel because there's a fire in my room.
142. People should obey moral laws more strictly than they do.  
(A) True (B) False
143. I have never felt that I was better than someone else.  
(A) True (B) False
144. I always seem to have something exciting to look forward to.  
(A) True (B) False
145. I don't enjoy trying to convince people of something.  
(A) True (B) False
146. I like hard work.  
(A) True (B) False
147. Never in my whole life have I wished for anything that I was not entitled to.  
(A) True (B) False

148. I am rather aloof and maintain distance between myself and others.  
(A) True (B) False
149. There are days when I'm "on edge" all of the time.  
(A) True (B) False
150. I have had a lot of bad luck.  
(A) True (B) False
151. Sometimes I seem to enjoy hurting people by saying mean things.  
(A) True (B) False
152. I generally do not like to have detailed plans.
- (A) True (B) False
153. It might be fun learning to walk a tightrope.  
(A) True (B) False
154. High moral standards are the most important thing parents can teach their children.  
(A) True (B) False
155. Sometimes I am so immersed in nature or in art that I feel as if my whole state of consciousness has somehow been temporarily changed.  
(A) True (B) False



## Cigarette Use

Do you smoke cigarettes at present?

- Not at all
- Less than once a month
- Every month, but less than one cigarette per week
- Each week, but less than one cigarette per day
- At least one cigarette per day

**If you smoke any cigarettes at all, please complete the following:**

1. How soon after you wake up do you smoke your first cigarette?

- Within 5 minutes
- 6-30 minutes
- 31-60 minutes
- After 60 minutes

2. Do you find it difficult to refrain from smoking in places where it is forbidden e.g. in church, at the library, in cinema, etc.?

- Yes
- No

3. Which cigarette would you hate most to give up?

- The first one in the morning
- All others

4. How many cigarettes per day do you smoke?

- 10 or less
- 11-20
- 21-30
- 31 or more

5. Do you smoke more frequently during the first hours after waking than during the rest of the day?

- Yes
- No

6. Do you smoke if you are so ill that you are in bed most of the day?

- Yes
- No

## PCL-C

**Instructions:** Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

	<i>Not at all</i>	<i>A little bit</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>
1. Repeated, disturbing <i>memories, thoughts, or images</i> of a stressful experience from the past?	1	2	3	4	5
2. Repeated, disturbing <i>dreams</i> of a stressful experience from the past?	1	2	3	4	5
3. Suddenly <i>acting or feeling</i> as if a stressful experience from the past <i>were happening again</i> (as if you were reliving it)?	1	2	3	4	5
4. Feeling <i>very upset</i> when <i>something reminded you</i> of a stressful experience from the past?	1	2	3	4	5
5. Having <i>physical reactions</i> (e.g., heart pounding, trouble breathing, sweating) when <i>something reminded you</i> of a stressful experience from the past?	1	2	3	4	5
6. Avoiding <i>thinking about or talking about</i> a stressful experience from the past or avoiding <i>having feelings</i> related to it?	1	2	3	4	5
7. Avoiding <i>activities or situations</i> because <i>they reminded you</i> of a stressful experience from the past?	1	2	3	4	5
8. Trouble <i>remembering important parts</i> of a stressful experience from the past?	1	2	3	4	5
9. <i>Loss of interest</i> in activities that you used to enjoy?	1	2	3	4	5
10. Feeling <i>distant or cut off</i> from other people?	1	2	3	4	5
11. Feeling <i>emotionally numb</i> or being unable to have loving feelings for those close to you?	1	2	3	4	5
12. Feeling as if your <i>future</i> somehow will be <i>cut short</i> ?	1	2	3	4	5
13. Trouble <i>falling or staying asleep</i> ?	1	2	3	4	5
14. Feeling <i>irritable</i> or having <i>angry outbursts</i> ?	1	2	3	4	5
15. Having <i>difficulty concentrating</i> ?	1	2	3	4	5
16. Being “ <i>superalert</i> ” or watchful or on guard?	1	2	3	4	5
17. Feeling <i>jumpy</i> or easily startled?	1	2	3	4	5

**PCL-5**

**Instructions:** Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

The event you experienced was \_\_\_\_\_ on \_\_\_\_\_.  
(event) (date)

<i>In the past month, how much were you bothered by:</i>	<i>Not at all</i>	<i>A little bit</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding internal reminders of the stressful experience (for example, thoughts, feelings, or physical sensations)?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, objects, activities, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4
10. Blaming yourself or someone else strongly for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4

Continue on next page

<i>In the past month, how much were you bothered by:</i>	<i>Not at all</i>	<i>A little bit</i>	<i>Moderately</i>	<i>Quite a bit</i>	<i>Extremely</i>
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Having trouble experiencing positive feelings (for example, being unable to have loving feelings for those close to you, or feeling emotionally numb)?	0	1	2	3	4
15. Feeling irritable or angry or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that cause you harm?	0	1	2	3	4
17. Being “superalert” or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

**P.D.I.-21**

This questionnaire is designed to measure beliefs and vivid mental experiences. We believe that they are much more common than has previously been supposed, and that most people have had some such experiences during their lives. Please answer the following questions as honestly as you can. There are no right or wrong answers, and there are no trick questions.

**Please note that we are NOT interested in experiences people may have had when under the influence of drugs.**

**IT IS IMPORTANT THAT YOU ANSWER ALL QUESTIONS.**

For the questions you answer YES to, we are interested in:

- (a) how distressing these beliefs or experiences are
- (b) how often you think about them; and
- (c) how true you believe them to be.

On the right hand side of the page we would like you to circle the number which corresponds most closely to how distressing this belief is, how often you think about it, and how much you believe that it is true.

If you answer NO please move on to the next question.

**Example**

Do you ever feel as if people are reading your mind ?

NO  YES  
 (please circle)

Not at all distressing	1	2	3	4	Very distressing	5
Hardly ever think about it	1	2	3	4	Think about it all the time	5
Don't believe it's true	1	2	3	4	Believe it is absolutely true	5

Do you ever feel as if you could read other people's minds ?

NO  YES  
 (please circle)

Not at all distressing	1	<input checked="" type="radio"/> 2	3	4	Very distressing	5
Hardly ever think about it	1	2	<input checked="" type="radio"/> 3	4	Think about it all the time	5
Don't believe it's true	1	2	<input checked="" type="radio"/> 3	4	Believe it is absolutely true	5

1) Do you ever feel as if people seem to drop hints about you or say things with a double meaning ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

2) Do you ever feel as if things in magazines or on TV were written especially for you ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

3) Do you ever feel as if some people are not what they seem to be ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

4) Do you ever feel as if you are being persecuted in some way ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

5) Do you ever feel as if there is a conspiracy against you ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

6) Do you ever feel as if you are, or destined to be someone very important ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

7) Do you ever feel that you are a very special or unusual person ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

8) Do you ever feel that you are especially close to God ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

9) Do you ever think people can communicate telepathically ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

10) Do you ever feel as if electrical devices such as computers can influence the way you think ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

11) Do you ever feel as if you have been chosen by God in some way ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

12) Do you believe in the power of witchcraft, voodoo or the occult ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

13) Are you often worried that your partner may be unfaithful ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

14) Do you ever feel that you have sinned more than the average person ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

15) Do you ever feel that people look at you oddly because of your appearance ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	



16) Do you ever feel as if you had no thoughts in your head at all ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

17) Do you ever feel as if the world is about to end ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

18) Do your thoughts ever feel alien to you in some way ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

19) Have your thoughts ever been so vivid that you were worried other people would hear them ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

20) Do you ever feel as if your own thoughts were being echoed back to you ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

21) Do you ever feel as if you are a robot or zombie without a will of your own ?

NO YES  
(please circle)

Not at all distressing					Very distressing
1	2	3	4	5	
Hardly ever think about it					Think about it all the time
1	2	3	4	5	
Don't believe it's true					Believe it is absolutely true
1	2	3	4	5	

## Personality Styles Inventory

This test measures differences in personality characteristics among people - that is, how people differ from each other in their personality styles. Beginning on this page, read each item and think carefully, and decide to what extent it is false or true as applied to you. Then mark your answers in the space provided to the left of each item using the scale provided below.

1. False      2. Mostly False      3. Mostly True      4. True

Even if you feel that an item is neither false nor true as applied to you, or if you are unsure about what response to make, try to make some response in every case. If you cannot make up your mind about the item, select the choice that is closest to your opinion about whether it is false or true as applied to you.

Here's a sample item:

\_\_\_\_\_ I enjoy going to movies.

If it is true that you enjoy going to movies, place a 4 on the line to the left of the item shown below.

  4   I enjoy going to movies.

If it is mostly false that you enjoy going to the movies, place a 2 on the line to the left of the item, and so on. Try to be as honest as you can, and be sure to give your own opinion about whether each item is false or true as applied to you.

---

- \_\_\_\_\_ 1. A lot of people in my life have tried to stab me in the back.
- \_\_\_\_\_ 2. I am a good conversationalist.
- \_\_\_\_\_ 3. I sometimes try to get others to "bend the rules" for me if I can't change them any other way.
- \_\_\_\_\_ 4. I might enjoy flying across the Atlantic in a hot-air balloon.
- \_\_\_\_\_ 5. I often become deeply attached to the people I like.
- \_\_\_\_\_ 6. Many people think of my political beliefs as "radical."
- \_\_\_\_\_ 7. I'm the kind of person who gets "stressed out" pretty easily.
- \_\_\_\_\_ 8. I often push myself to my limits in my work.
- \_\_\_\_\_ 9. People whom I have trusted have often ended up "double-crossing" me.

1. False

2. Mostly False

3. Mostly True

4. True

---

- \_\_\_\_\_ 10. I'm hardly ever the "life of the party".
- \_\_\_\_\_ 11. In school or at work, I sometimes try to "stretch" the rules a little bit just to see how much I can get away with.
- \_\_\_\_\_ 12. I would find the job of movie stunt person exciting.
- \_\_\_\_\_ 13. Ending a friendship is (or would be) very painful for me.
- \_\_\_\_\_ 14. I sometimes like to "thumb my nose" at established traditions.
- \_\_\_\_\_ 15. I am easily flustered in pressured situations.
- \_\_\_\_\_ 16. I usually strive to be the best at whatever I do.
- \_\_\_\_\_ 17. Some people seem to have gone out of their way to make life difficult for me.
- \_\_\_\_\_ 18. I rarely find myself being the center of attention in social situations.
- \_\_\_\_\_ 19. I often tell people only the part of the truth they want to hear.
- \_\_\_\_\_ 20. Making a parachute jump would really frighten me.
- \_\_\_\_\_ 21. It bothers me greatly when I see someone crying.
- \_\_\_\_\_ 22. I've always considered myself to be something of a rebel.
- \_\_\_\_\_ 23. I am easily "rattled" at a critical moments.
- \_\_\_\_\_ 24. I am very careful about my manners when other people are around.
- \_\_\_\_\_ 25. I've been the victim of a lot of bad luck in my life.
- \_\_\_\_\_ 26. I find it easy to go up to someone I've never met and introduce myself.
- \_\_\_\_\_ 27. I have to admit that I'm a bit of a materialist.
- \_\_\_\_\_ 28. It might be fun to belong to a group of "bikers" (motorcyclists) who travel around the country and raise some hell.
- \_\_\_\_\_ 29. I often hold on to old objects or letters just for their sentimental value.
- \_\_\_\_\_ 30. I pride myself on being offbeat and unconventional.

1. False

2. Mostly False

3. Mostly True

4. True

---

- \_\_\_\_\_ 31. I tend to be “thin-skinned” and overly sensitive to criticism.
- \_\_\_\_\_ 32. I am an ambitious person.
- \_\_\_\_\_ 33. I’m sure that some people would be pleased to see me fail in life.
- \_\_\_\_\_ 34. I find it difficult to make small talk with people I do not know well.
- \_\_\_\_\_ 35. Frankly, I believe I am more important than most people.
- \_\_\_\_\_ 36. If I were a fire-fighter, I think that I might actually enjoy the excitement of trying to rescue someone from the top floor of a burning building.
- \_\_\_\_\_ 37. I often feel very nostalgic when I think back to peaceful moments in my childhood.
- \_\_\_\_\_ 38. I wouldn’t mind belonging to a group of people who “drift” from city to city, with no permanent home.
- \_\_\_\_\_ 39. I can remain calm in situations that would make many other people panic.
- \_\_\_\_\_ 40. I’ve quickly learned from my major mistakes in life.
- \_\_\_\_\_ 41. In the past, people who were supposed to be my “friends” ended up getting me in trouble.
- \_\_\_\_\_ 42. When I’m among a group of people, I rarely end up being the leader.
- \_\_\_\_\_ 43. I tell many “white lies”.
- \_\_\_\_\_ 44. I bet that it would be fun to pilot a small aircraft alone.
- \_\_\_\_\_ 45. I sometimes worry about whether I might have accidentally hurt someone’s feelings.
- \_\_\_\_\_ 46. I would enjoy hitch-hiking my way across the United States with no prearranged plans.
- \_\_\_\_\_ 47. When I want to, I can usually put fear and worries out of my mind.
- \_\_\_\_\_ 48. I weigh the pros and cons of major decisions carefully before making them.
- \_\_\_\_\_ 49. People have often criticized me unjustly (unfairly).

1. False

2. Mostly False

3. Mostly True

4. True

---

- \_\_\_\_\_ 50. I become embarrassed more easily than most people.
- \_\_\_\_\_ 51. I quickly become very annoyed at people who do not give me what I want.
- \_\_\_\_\_ 52. I occasionally do something dangerous because someone has dared me to do it.
- \_\_\_\_\_ 53. I have had “crushes” on people that were so intense that they were painful.
- \_\_\_\_\_ 54. Fitting in and having things in common with other people my age has always been important to me.
- \_\_\_\_\_ 55. I tend to get crabby and irritable when I have too many things to do.
- \_\_\_\_\_ 56. I generally prefer to act first and think later.

# PATIENT HEALTH QUESTIONNAIRE (PHQ)

This questionnaire is an important part of providing you with the best health care possible. Your answers will help in understanding problems that you may have. Please answer every question to the best of your ability unless you are requested to skip over a question.

Name \_\_\_\_\_ Age \_\_\_\_\_ Sex:  Female  Male Today's Date \_\_\_\_\_

1. During the last 4 weeks, how much have you been bothered by any of the following problems?	Not bothered	Bothered a little	Bothered a lot
a. Stomach pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Back pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Pain in your arms, legs, or joints (knees, hips, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Menstrual cramps or other problems with your periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Pain or problems during sexual intercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Headaches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Chest pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Dizziness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Fainting spells	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Feeling your heart pound or race	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k. Shortness of breath	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Constipation, loose bowels, or diarrhea	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
m. Nausea, gas, or indigestion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Over the last 2 weeks, how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
a. Little interest or pleasure in doing things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Feeling down, depressed, or hopeless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Trouble falling or staying asleep, or sleeping too much	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Feeling tired or having little energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Poor appetite or overeating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Feeling bad about yourself — or that you are a failure or have let yourself or your family down	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Trouble concentrating on things, such as reading the newspaper or watching television	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Thoughts that you would be better off dead or of hurting yourself in some way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FOR OFFICE CODING: Som Dis if at least 3 of #1a-m are "a lot" and lack an adequate biol explanation.  
 Maj Dep Syn if answers to #2a or b and five or more of #2a-i are at least "More than half the days" (count #2i if present at all).  
 Other Dep Syn if #2a or b and two, three, or four of #2a-i are at least "More than half the days" (count #2i if present at all).

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**3. Questions about anxiety.**

	<b>NO</b>	<b>YES</b>
a. In the last 4 weeks, have you had an anxiety attack — suddenly feeling fear or panic?	<input type="checkbox"/>	<input type="checkbox"/>
<b>If you checked "NO", go to question #5.</b>		
b. Has this ever happened before?	<input type="checkbox"/>	<input type="checkbox"/>
c. Do some of these attacks come suddenly out of the blue — that is, in situations where you don't expect to be nervous or uncomfortable?	<input type="checkbox"/>	<input type="checkbox"/>
d. Do these attacks bother you a lot or are you worried about having another attack?	<input type="checkbox"/>	<input type="checkbox"/>

**4. Think about your last bad anxiety attack.**

	<b>NO</b>	<b>YES</b>
a. Were you short of breath?	<input type="checkbox"/>	<input type="checkbox"/>
b. Did your heart race, pound, or skip?	<input type="checkbox"/>	<input type="checkbox"/>
c. Did you have chest pain or pressure?	<input type="checkbox"/>	<input type="checkbox"/>
d. Did you sweat?	<input type="checkbox"/>	<input type="checkbox"/>
e. Did you feel as if you were choking?	<input type="checkbox"/>	<input type="checkbox"/>
f. Did you have hot flashes or chills?	<input type="checkbox"/>	<input type="checkbox"/>
g. Did you have nausea or an upset stomach, or the feeling that you were going to have diarrhea?	<input type="checkbox"/>	<input type="checkbox"/>
h. Did you feel dizzy, unsteady, or faint?	<input type="checkbox"/>	<input type="checkbox"/>
i. Did you have tingling or numbness in parts of your body?...	<input type="checkbox"/>	<input type="checkbox"/>
j. Did you tremble or shake?	<input type="checkbox"/>	<input type="checkbox"/>
k. Were you afraid you were dying?	<input type="checkbox"/>	<input type="checkbox"/>

<b>5. Over the last 4 weeks, how often have you been bothered by any of the following problems?</b>	<b>Not at all</b>	<b>Several days</b>	<b>More than half the days</b>
a. Feeling nervous, anxious, on edge, or worrying a lot about different things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>If you checked "Not at all", go to question #6.</b>			
b. Feeling restless so that it is hard to sit still.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Getting tired very easily.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Muscle tension, aches, or soreness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Trouble falling asleep or staying asleep.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Trouble concentrating on things, such as reading a book or watching TV.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Becoming easily annoyed or irritable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FOR OFFICE CODING: Pan Syn if all of #3a-d are 'YES' and four or more of #4a-k are 'YES'. Other Anx Syn if #5a and answers to three or more of #5b-g are "More than half the days".



<b>6. Questions about eating.</b>			
a.	Do you often feel that you can't control <u>what</u> or <u>how much</u> you eat?	<b>NO</b> <input type="checkbox"/>	<b>YES</b> <input type="checkbox"/>
b.	Do you often eat, <u>within any 2-hour period</u> , what most people would regard as an unusually <u>large</u> amount of food?	<input type="checkbox"/>	<input type="checkbox"/>
<b>If you checked "NO" to either #a or #b, go to question #9.</b>			
c.	Has this been as often, on average, as twice a week for the last 3 months?	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. In the last 3 months have you <u>often</u> done any of the following in order to avoid gaining weight?</b>		<b>NO</b>	<b>YES</b>
a.	Made yourself vomit?	<input type="checkbox"/>	<input type="checkbox"/>
b.	Took more than twice the recommended dose of laxatives?	<input type="checkbox"/>	<input type="checkbox"/>
c.	Fasted — not eaten anything at all for at least 24 hours?	<input type="checkbox"/>	<input type="checkbox"/>
d.	Exercised for more than an hour specifically to avoid gaining weight after binge eating?	<input type="checkbox"/>	<input type="checkbox"/>
<b>8. If you checked "YES" to any of these ways of avoiding gaining weight, were any as often, on average, as twice a week?</b>		<b>NO</b> <input type="checkbox"/>	<b>YES</b> <input type="checkbox"/>
<b>9. Do you ever drink alcohol (including beer or wine)?</b>		<b>NO</b> <input type="checkbox"/>	<b>YES</b> <input type="checkbox"/>
<b>If you checked "NO" go to question #11.</b>			
<b>10. Have any of the following happened to you <u>more than once in the last 6 months</u>?</b>		<b>NO</b>	<b>YES</b>
a.	You drank alcohol even though a doctor suggested that you stop drinking because of a problem with your health.	<input type="checkbox"/>	<input type="checkbox"/>
b.	You drank alcohol, were high from alcohol, or hung over while you were working, going to school, or taking care of children or other responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>
c.	You missed or were late for work, school, or other activities because you were drinking or hung over.	<input type="checkbox"/>	<input type="checkbox"/>
d.	You had a problem getting along with other people while you were drinking.	<input type="checkbox"/>	<input type="checkbox"/>
e.	You drove a car after having several drinks or after drinking too much.	<input type="checkbox"/>	<input type="checkbox"/>
<b>11. If you checked off <u>any</u> problems on this questionnaire, how <u>difficult</u> have these problems made it for you to do your work, take care of things at home, or get along with other people?</b>			
<b>Not difficult at all</b>	<b>Somewhat difficult</b>	<b>Very difficult</b>	<b>Extremely difficult</b>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FOR OFFICE CODING: Bul Ner if #6a,b, and-c and #8 are all 'YES'; Bin Eat Dis the same but #8 either 'NO' or left blank. Alc Abu if any of #10a-e is 'YES'.

Developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc. No permission required to reproduce, translate, display or distribute.

## QOLI

## DIRECTIONS:

This survey asks how satisfied you are with parts of your life such as your work and your health. It also asks how important these things are to your happiness. Special definitions are used for words like “money,” “work,” and “play.” Keep these definitions in mind as you answer the questions. Answer every question, even if it does not seem to apply to you. It is your feelings and opinions that are important, so there are no right or wrong answers. Just give the answers that best describe you.

The survey asks you to describe how **important** certain parts of your life (such as work and health) are and how **satisfied** you are with them.

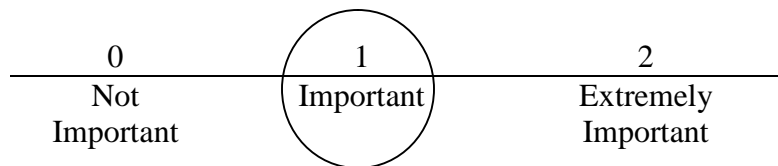
**Important** means how much this part of your life adds to your overall happiness. You can say how important something is by picking one of three choices: “Not Important” (0), “Important” (1), or “Extremely Important” (2).

**Satisfied** means how well your needs, goals, and wishes are being met in this area of life. You can say how satisfied you are by picking one of six choices from “Very Dissatisfied” (-3) to “Very Satisfied” (+3).

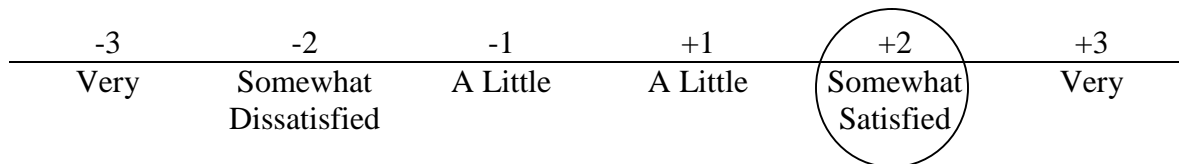
For each question, circle the answer that best describes you.

## EXAMPLE:

This is how you would answer if WORK was “Important” to your overall happiness.



You would answer this way if you were “Somewhat Satisfied” with your WORK:



**HEALTH** is being physically fit, not sick, and without pain or disability.

1. How **important** is HEALTH to your happiness?

0	1	2
Not Important	Important	Extremely Important

2. How **satisfied** are you with your HEALTH?

-3	-2	-1	+1	+2	+3
Very	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very

**SELF-ESTEEM** means liking and respecting yourself in light of your strengths and weaknesses, successes and failures, and ability to handle problems.

3. How **important** is SELF-ESTEEM to your happiness?

0	1	2
Not Important	Important	Extremely Important

4. How **satisfied** are you with your SELF-ESTEEM?

-3	-2	-1	+1	+2	+3
Very	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very

**GOALS-AND-VALUES** are your beliefs about what matters most in your life and how you should live, both now and in the future. This includes your goals in life, what you think is right or wrong, and the purpose or meaning of life as you see it.

5. How **important** are GOALS-AND-VALUES to your happiness?

0	1	2
Not Important	Important	Extremely Important

6. How **satisfied** are you with your GOALS-AND-VALUES?

-3	-2	-1	+1	+2	+3
Very	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very

**MONEY** is made up of three things. It is the money you earn, the things you own (like a car or furniture), and believing that you will have the money and things that you need in the future.

7. How **important** is MONEY to your happiness?

0	1	2
Not Important	Important	Extremely Important

8. How **satisfied** are you with the MONEY you have?

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very Satisfied

**WORK** means your career or how you spend most of your time. You may work at a job, at home taking care of your family, or at school as a student. WORK includes your duties on the job, the money you earn (if any), and the people you work with. (If you are unemployed, retired, or can't work, you can still answer these questions.)

9. How **important** is WORK to your happiness?

0	1	2
Not Important	Important	Extremely Important

10. How **satisfied** are you with your WORK? (If you are not working, say how satisfied you are about not working.)

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very Satisfied

**PLAY** is what you do in your free time to relax, have fun, or improve yourself. This could include watching movies, visiting friends, or pursuing a hobby like sports or gardening.

11. How **important** is PLAY to your happiness?

0	1	2
Not Important	Important	Extremely Important

12. How **satisfied** are you with the PLAY in your life?

-3	-2	-1	+1	+2	+3
Very	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very

**LEARNING** means gaining new skills or information about things that interest you. LEARNING can come from reading books or taking classes on subjects like history, car repair, or using a computer.

13. How **important** is LEARNING to your happiness?

0	1	2
Not Important	Important	Extremely Important

14. How **satisfied** are you with your LEARNING?

-3	-2	-1	+1	+2	+3
Very	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very

**CREATIVITY** is using your imagination to come up with new and clever ways to solve everyday problems or to pursue a hobby like painting, photography, or needlework. This can include decorating your home, playing the guitar, or finding a new way to solve a problem at work.

15. How **important** is CREATIVITY to your happiness?

0	1	2
Not Important	Important	Extremely Important

16. How **satisfied** are you with your CREATIVITY?

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little Dissatisfied	A Little Satisfied	Somewhat Satisfied	Very Satisfied

**HELPING** means helping others in need or helping to make your community a better place to live. **HELPING** can be done on your own or in a group like a church, a neighborhood association, or a political party. **HELPING** can include doing volunteer work at a school or giving money to a good cause. **HELPING** means helping people who are not your friends or relatives.

17. How **important** is HELPING to your happiness?

0	1	2
Not Important	Important	Extremely Important

18. How **satisfied** are you with the HELPING you do?

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little Dissatisfied	A Little Satisfied	Somewhat Satisfied	Very Satisfied

**LOVE** is a very close romantic relationship with another person. LOVE usually includes sexual feelings and feeling loved, cared for, and understood. (If you do not have a LOVE relationship, you can still answer these questions.)

19. How **important** is LOVE to your happiness?

0	1	2
Not Important	Important	Extremely Important

20. How **satisfied** are you with the LOVE in your life? (If you are not in a LOVE relationship, say how satisfied you feel about not having a LOVE relationship.)

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little Dissatisfied	A Little Satisfied	Somewhat Satisfied	Very Satisfied

**FRIENDS** are people (not relatives) you know well and care about who have interests and opinions like yours. FRIENDS have fun together, talk about personal problems, and help each other out. (If you have no FRIENDS, you can still answer these questions.)

21. How **important** are FRIENDS to your happiness?

0	1	2
Not Important	Important	Extremely Important

22. How **satisfied** are you with your FRIENDS? (If you have no FRIENDS, say how satisfied you are about having no FRIENDS.)

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little Dissatisfied	A Little Satisfied	Somewhat Satisfied	Very Satisfied

**CHILDREN** means how you get along with your child (or children). Think of how you get along as you care for, visit, or play with your child. (If you do not have CHILDREN, you can still answer these questions.)

23. How **important** are CHILDREN to your happiness? (If you have no CHILDREN, say how important having a child is to your happiness.)

0	1	2
Not Important	Important	Extremely Important

24. How **satisfied** are you with your relationships with your CHILDREN? (If you have no CHILDREN, say how satisfied you feel about not having children.)

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very Satisfied

**RELATIVES** means how you get along with your parents, grandparents, brothers, sisters, aunts, uncles, and in-laws. Think about how you get along when you are doing things together like visiting, talking on the telephone, or helping each other out. (If you have no living RELATIVES, circle the 0 [“Not Important”] option for question 25 and do not answer question 26.)

25. How **important** are RELATIVES to your happiness?

0	1	2
Not Important	Important	Extremely Important

26. How **satisfied** are you with your relationships with RELATIVES?

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very Satisfied



**HOME** is where you live. It is your house or apartment and the yard around it. Think about how nice it looks, how big it is, and your rent or house payment.

27. How **important** is your HOME to your happiness?

0	1	2
Not Important	Important	Extremely Important

28. How **satisfied** are you with your HOME?

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very Satisfied

**NEIGHBORHOOD** is the area around your home. Think about how nice it looks, the amount of crime in the area, and how well you like the people.

29. How **important** is your NEIGHBORHOOD to your happiness?

0	1	2
Not Important	Important	Extremely Important

30. How **satisfied** are you with your NEIGHBORHOOD?

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little	A Little	Somewhat Satisfied	Very Satisfied

**COMMUNITY** is the whole city, town, or rural area where you live (it is not just your neighborhood). **COMMUNITY** includes how nice the area looks, the amount of crime, and how well you like the people. It also includes places to go for fun like parks, concerts, sporting events, and restaurants. You may also consider the cost of things you need to buy, the availability of jobs, the government, schools, taxes, and pollution.

31. How **important** is your **COMMUNITY** to your happiness?

0	1	2
Not Important	Important	Extremely Important

32. How **satisfied** are you with your **COMMUNITY**?

-3	-2	-1	+1	+2	+3
Very Dissatisfied	Somewhat Dissatisfied	A Little Dissatisfied	A Little Satisfied	Somewhat Satisfied	Very Satisfied

## Sheehan Disability Scale

A brief, patient rated, measure of disability and impairment.

Please mark ONE circle for each scale.

**WORK\* / SCHOOL**

The symptoms have disrupted your work / school work:

Not at all      Mildly      Moderately      Markedly      Extremely

0   ←    1   —    2   —    3   —    4   —    5   —    6   —    7   —    8   —    9   →    10

I have not worked / studied at all during the past week for reasons unrelated to the disorder.  
 \* Work includes paid, unpaid volunteer work or training

**SOCIAL LIFE**

The symptoms have disrupted your social life / leisure activities:

Not at all      Mildly      Moderately      Markedly      Extremely

0   ←    1   —    2   —    3   —    4   —    5   —    6   —    7   —    8   —    9   →    10

**FAMILY LIFE / HOME RESPONSIBILITIES**

The symptoms have disrupted your family life / home responsibilities:

Not at all      Mildly      Moderately      Markedly      Extremely

0   ←    1   —    2   —    3   —    4   —    5   —    6   —    7   —    8   —    9   →    10

### Days Lost

On how many days in the last week did your symptoms cause you to miss school or work or leave you unable to carry out your normal daily responsibilities? \_\_\_\_\_

### Days Unproductive

On how many days in the last week did you feel so impaired by your symptoms, that even though you went to school or work, your productivity was reduced? \_\_\_\_\_

## SF-36v

**Instructions**

This survey asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities.

Please answer every question circling only one of the responses. If you are unsure about how to answer, please give the best answer you can.

**1. In general, would you say your health is:**

Excellent	Very good	Good	Fair	Poor
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**2. During a typical day, does your health now limit you in:**

*VIGOROUS activities such as running, lifting heavy objects, participating in strenuous sports?*

Yes, Limited a lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**3. During a typical day, does your health now limit you in:**

*MODERATE activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf?*

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**4. During a typical day, does your health now limit you in:**

*Lifting or carrying groceries?*

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**5. During a typical day, does your health now limit you in:**

*Climbing SEVERAL flights of stairs?*

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

*Please continue on the next page ...*

**6. During a typical day, does your health now limit you in:  
*Climbing ONE flight of stairs?***

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**7. During a typical day, does your health now limit you in:  
*Bending, kneeling, or stooping?***

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**8. During a typical day, does your health now limit you in:  
*Walking more than a mile?***

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**9. During a typical day, does your health now limit you in:  
*Walking SEVERAL blocks?***

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**10. During a typical day, does your health now limit you in:  
*Walking ONE block?***

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**11. During a typical day, does your health now limit you in:  
*Bathing or dressing yourself?***

Yes, Limited a Lot	Yes, Limited a Little	No, Not Limited at All
--------------------	-----------------------	------------------------

**12. During the past 4 weeks, as a result of your PHYSICAL HEALTH have you:  
*Cut down on the amount of time you spent on work or other activities?***

No, None of the time	Yes, A Little of the Time	Yes, Some of the time	Yes, Most of the time	Yes, All of the time
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*Please continue on the next page ...*

**13. During the past 4 weeks, as a result of your **PHYSICAL HEALTH** have you:  
*Accomplished less than you would like?***

No, None of the time	Yes, A Little of the Time	Yes, Some of the time	Yes, Most of the time	Yes, All of the time
----------------------	---------------------------	-----------------------	-----------------------	----------------------

**14. During the past 4 weeks, as a result of your **PHYSICAL HEALTH** is it true that you:**

*Were limited in the kind of work or other activities?*

No, None of the time	Yes, A Little of the Time	Yes, Some of the time	Yes, Most of the time	Yes, All of the time
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**15. During the past 4 weeks, as a result of your **PHYSICAL HEALTH** is it true that you:**

*Had difficulty performing the work or other activities. (For example, it took extra effort)?*

No, None of the time	Yes, A Little of the Time	Yes, Some of the time	Yes, Most of the time	Yes, All of the time
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**16. During the past 4 weeks, as a result of any **EMOTIONAL PROBLEMS** have you:**

*Cut down the amount of time you spent on work or other activities?*

No, None of the time	Yes, A Little of the Time	Yes, Some of the time	Yes, Most of the time	Yes, All of the time
----------------------	---------------------------	-----------------------	-----------------------	----------------------

**17. During the past 4 weeks, as a result of any **EMOTIONAL PROBLEMS** have you:**

*Accomplished less than you would like?*

No, None of the time	Yes, A Little of the Time	Yes, Some of the time	Yes, Most of the time	Yes, All of the time
----------------------	---------------------------	-----------------------	-----------------------	----------------------

**18. During the past 4 weeks, as a result of any **EMOTIONAL PROBLEMS** have you:**

*Didn't do work or other activities as carefully as usual?*

No, None of the time	Yes, A Little of the Time	Yes, Some of the time	Yes, Most of the time	Yes, All of the time
----------------------	---------------------------	-----------------------	-----------------------	----------------------

*Please continue on the next page ...*

**19. During the past 4 weeks, to what extent has your physical health or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?**

Not at all	Slightly	Moderately	Quite a bit	Extremely
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**20. How much bodily pain have you had during the past 4 weeks?**

None	Very Mild	Mild	Moderate	Severe	Very Severe
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**21. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?**

Not at all	Slightly	Moderately	Quite a bit	Extremely
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**22. During the past 4 weeks: Did you feel full of pep?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**23. During the past 4 weeks: Have you been a very nervous person?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**24. During the past 4 weeks: Have you felt so down in the dumps that nothing could cheer you up?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**25. During the past 4 weeks: Have you felt calm and peaceful?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**26. During the past 4 weeks: Did you have a lot of energy?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

*Please continue on the next page ...*

**27. During the past 4 weeks: Have you felt downhearted and blue?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**28. During the past 4 weeks: Did you feel worn out?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**29. During the past 4 weeks: Have you been a happy person?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**30. During the past 4 weeks: Did you feel tired?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**31. During the past 4 weeks: How much of the time has your **PHYSICAL HEALTH OR EMOTIONAL PROBLEMS** interfered with your social activities ( like visiting with friends, relatives, etc.)?**

All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
-----------------	------------------	------------------------	------------------	----------------------	------------------

**32. How TRUE or FALSE is this for you? *“I seem to get sick a little easier than other people.”***

Definitely True	Mostly True	Not Sure	Mostly False	Definitely False
-----------------	-------------	----------	--------------	------------------

**33. How TRUE or FALSE is this for you? *“I am as healthy as anybody I know.”***

Definitely True	Mostly True	Not Sure	Mostly False	Definitely False
-----------------	-------------	----------	--------------	------------------

**34. How TRUE or FALSE is this for you? *“I expect my health to get worse.”***

Definitely True	Mostly True	Not Sure	Mostly False	Definitely False
-----------------	-------------	----------	--------------	------------------

**35. How TRUE or FALSE is this for you? *“My health is excellent.”***

Definitely True	Mostly True	Not Sure	Mostly False	Definitely False
-----------------	-------------	----------	--------------	------------------

*Please continue on the next page ...*



**36. Compared to one year ago, how would you rate your PHYSICAL HEALTH in general now?**

Much better now than one year ago	Somewhat better than one year ago	About the same as one year ago	Somewhat worse than one year ago	Much worse than one year ago
-----------------------------------	-----------------------------------	--------------------------------	----------------------------------	------------------------------

**37. Compared to one year ago, how would you rate your EMOTIONAL HEALTH in general now?**

Much better now than one year ago	Somewhat better than one year ago	About the same as one year ago	Somewhat worse than one year ago	Much worse than one year ago
-----------------------------------	-----------------------------------	--------------------------------	----------------------------------	------------------------------

*This completes the survey. Thank you.*

# SIMS Response Form

Name \_\_\_\_\_ Today's Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Gender \_\_\_\_\_ Age \_\_\_\_\_ Date of Birth \_\_\_\_/\_\_\_\_/\_\_\_\_

**T = True or usually true for you**

**F = False or usually untrue for you**

- |  |   |   |
|--|---|---|
| 1. Sometimes I lose all feeling in my hand so that it is as if I have a glove on.  | T | F |
| 2. When my depression becomes too severe, I go out for long walks or do some form of exercise to reduce the tension.       | T | F |
| 3. I believe that an individual's phone number is not randomly assigned but is God's way of determining one's salvation.   | T | F |
| 4. If your shadow points to the southeast, the sun is in the northeast corner of the sky.                                  | T | F |
| 5. Food doesn't taste the same as it has in the past.  | T | F |
| 6. I seldom laugh.   | T | F |
| 7. Gold and silver are alike because they're both metals.  | T | F |
| 8. I have noticed that my shadow dances wildly even though I remain still.   | T | F |
| 9. I can remember what I was doing one hour ago.   | T | F |
| 10. I have noticed that my body changes shape even though my weight stays the same.  | T | F |
| 11. The capital of Italy is Hungary.   | T | F |
| 12. I have difficulty remembering my address.  | T | F |
| 13. There is nothing that I can do, besides taking medication, that has any effect on the voices I hear.                   | T | F |
| 14. The United States has 55 states.   | T | F |
| 15. The major problem I have is with my memory.  | T | F |
| 16. Even though I'm depressed most of the time, I feel best in the morning after a good night's sleep.                     | T | F |
| 17. My mood is worse at night.   | T | F |
| 18. More than three times a day I find myself getting up to get something only to forget what it was.                      | T | F |
| 19. At times I am so depressed I welcome going to bed early to "sleep it off."   | T | F |
| 20. My major problem is that my brain is injured.  | T | F |
| 21. There are six days in a week.  | T | F |
| 22. Recently I've noticed that my memory is getting so bad that there have been entire days that I cannot recall.          | T | F |
| 23. I seldom cry.  | T | F |
| 24. The more depressed I get, the more I want to eat.  | T | F |
| 25. At times I've been unable to remember the names or faces of close relatives so that they seem like complete strangers. | T | F |
| 26. Walking is difficult for me because of my problems with balance.   | T | F |
| 27. I have difficulty remembering the day of the week.   | T | F |
| 28. I believe that the government has installed cameras in stop lights to spy on me.                                       | T | F |
| 29. Sometimes when writing a phone number, I notice that the numbers come out backwards even though I don't mean to do it. | T | F |
| 30. I have difficulty remembering today's date.  | T | F |
| 31. People can put thoughts in my mind against my will.  | T | F |
| 32. I have trouble sleeping.   | T | F |
| 33. My past life and important events became a blur to me almost overnight.  | T | F |
| 34. I believe that if you think very hard it is possible to actually see the thoughts of others.                           | T | F |
| 35. Sometimes my muscles go limp for no apparent reason so that my arms and legs feel as if they weigh a ton.              | T | F |
| 36. I have difficulty remembering my phone number.   | T | F |

(continued)

T = True or usually true for you

F = False or usually untrue for you

- |  |   |   |
|--|---|---|
| 37. As the day progresses my mood gets worse.  | T | F |
| 38. The voice(s) that I hear, which others do not hear, has (have) never stopped since it (they) began.          | T | F |
| 39. I have pain in my body which seems to feel like bugs crawling under the surface of my skin.                  | T | F |
| 40. I cannot remember whether or not I have been married.  | T | F |
| 41. I cannot count backwards from 20 to 1 without making a mistake.  | T | F |
| 42. Flowers have magical powers like the ability to talk to people.  | T | F |
| 43. I have no trouble falling asleep but I wake up often during the night.                                       | T | F |
| 44. There is a constant ringing in my ears.  | T | F |
| 45. I was told of an angry meeting I had with someone, but I do not recall any of it.                            | T | F |
| 46. Candles are made of wax.   | T | F |
| 47. I am depressed all the time.   | T | F |
| 48. The voice(s) I hear, which no one else hears, come(s) from outside my head.                                  | T | F |
| 49. While driving, I sometimes forget how to get home.   | T | F |
| 50. I have difficulty recognizing written and spoken words.  | T | F |
| 51. The fear I have of someone hurting me is so real that I know exactly how and when they would do it.          | T | F |
| 52. I do not seem to have the energy I used to have.   | T | F |
| 53. When I can't remember something, hints do not help.  | T | F |
| 54. There has been no change in my sense of smell.   | T | F |
| 55. When I'm down, I can get a lift through my hobbies, interests, or friends.                                   | T | F |
| 56. A judge and a lawyer are alike because they are both part of the legal system.                               | T | F |
| 57. One day, all of a sudden, I began to hear one or more voices that other people couldn't hear.                | T | F |
| 58. A door and a gate are alike because they are both openings.  | T | F |
| 59. Although I am able to move them with no difficulty, I have noticed several parts of my limbs are numb.       | T | F |
| 60. I can't seem to express my feelings.   | T | F |
| 61. I have difficulty remembering my birth date.   | T | F |
| 62. In my visions, I often see parts of bodies covered with blood.   | T | F |
| 63. Washington was our first President.  | T | F |
| 64. At times my leg, below the knee, goes limp and I'm unable to move it.  | T | F |
| 65. When I hear voices coming out of nowhere, I want to run but find I can't even walk without great difficulty. | T | F |
| 66. I work slowly and produce a small amount because my activities are so limited.                               | T | F |
| 67. If you have \$1.50 and I take away fifty cents, you will have 75 cents left.                                 | T | F |
| 68. In the series — 1, 12, 123 — the next response would be 456.   | T | F |
| 69. When I hear voices, I feel as though my teeth are leaving my body.   | T | F |
| 70. The major problem I am having is that things are hard for me to understand.                                  | T | F |
| 71. Once a week I suddenly find myself cold even though the actual temperature is warm.                          | T | F |
| 72. Even though things seem pretty bad, I try to remain hopeful that they'll get better.                         | T | F |
| 73. A man had 56 apples and a neighbor gave him 37 more. He now has 83.  | T | F |
| 74. I find lately that I suffer from headaches and dizziness just before I forget something.                     | T | F |
| 75. In the series — 1, 1, 22, 33 — the next correct answer would be 44.  | T | F |

ID # \_\_\_\_\_

**TIC**

1. In the last year, have you ever drunk or used drugs more than you meant to?

Yes     No

2. Have you felt you wanted or needed to cut down on your drinking or drug use in the last year?

Yes     No

## Head Injury or Exposure to Blast Questionnaire

1. Have you ever experienced any of the following events? *(Mark all that apply)*

- Blast or explosion *(IED, RPG, land mine, grenade, etc.)*
- Vehicular accident/crash *(any vehicle, including aircraft)*
- Fragment wound or bullet wound above your shoulders
- Fall
- Other event *(for example, a sports injury to your head)*

Describe: \_\_\_\_\_  
\_\_\_\_\_

- None *(If you checked none, please go to the next questionnaire)*

2. Did any of the following happen to you, or were you told happened to you, IMMEDIATELY after any of the event(s) you just noted in question 1? *(Mark all that apply)*

- Lost consciousness or got “knocked out”
- Felt dazed, confused, or “saw stars”
- Didn’t remember the event
- Had a concussion
- Had a head injury

3. Did any of the following problems begin or get worse after the event(s) you noted in question 1? *(Mark all that apply)*

- Memory problems or lapses
- Balance problems or dizziness
- Ringing in the ears
- Sensitivity to bright light
- Irritability
- Headaches
- Sleep Problems

4. In the past week, have you had any of the symptoms you indicated in question 3? *(Mark all that apply)*

- Memory problems or lapses
- Balance problems or dizziness
- Ringing in the ears
- Sensitivity to bright light
- Irritability
- Headaches
- Sleep Problems



**World Health Organization  
Disability Assessment Schedule II**

**Phase 2 Field Trials – Health Services Research  
36-Item Self-Administered Version**

For Office Use Only:

Center#    Subject #    Time #

Day / Month / Year

- Pop:                      Dwelling:
- Gen                       Independent
  - Drg                       Assisted
  - Alc                       Hospitalized
  - Mnh
  - Phys
  - Other

H1	How do you rate your <u>overall health in the past 30 days?</u>	Very good	Good	Moderate	Bad	Very Bad
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This questionnaire asks about difficulties due to health conditions. Health conditions include diseases or illnesses, other health problems that may be short or long lasting, injuries, mental or emotional problems, and problems with alcohol or drugs.

Think back over the last 30 days and answer these questions thinking about how much difficulty you had doing the following activities. For each question, please circle only one response.

In the last <u>30 days</u> , how much <u>difficulty</u> did you have in:						
<b><u>Understanding and communicating</u></b>						
D1.1	<u>Concentrating</u> on doing something for <u>ten minutes?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D1.2	<u>Remembering</u> to do <u>important things?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D1.3	<u>Analyzing</u> and finding solutions to <u>problems</u> in day to day life?	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D1.4	<u>Learning</u> a <u>new task</u> , for example, learning how to get to a new place?	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D1.5	<u>Generally understanding</u> what people say?	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D1.6	<u>Starting</u> and <u>maintaining</u> a <u>conversation?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
<b><u>Getting around</u></b>						
D2.1	<u>Standing</u> for <u>long periods</u> such as <u>30 minutes?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D2.2	<u>Standing up</u> from sitting down?	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D2.3	<u>Moving around</u> <u>inside your home?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D2.4	<u>Getting out</u> of your <u>home?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D2.5	<u>Walking</u> a <u>long distance</u> such as a <u>kilometre</u> (or equivalent)?	None	Mild	Moderate	Severe	Extreme/ Cannot Do

*Please continue to the next page ...*

In the last <u>30 days</u> , how much <u>difficulty</u> did you have in:						
<b><u>Self Care</u></b>						
D3.1	<u>Washing your whole body?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D3.2	<u>Getting dressed?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D3.3	<u>Eating?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D3.4	<u>Staying by yourself for a few days?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
<b><u>Getting along with people</u></b>						
D4.1	<u>Dealing with people you do not know?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D4.2	<u>Maintaining a friendship?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D4.3	<u>Getting along with people who are close to you?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D4.4	<u>Making new friends?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D4.5	<u>Sexual activities?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
<b><u>Life activities</u></b>						
D5.1	<u>Taking care of your household responsibilities?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D5.2	<u>Doing most important household tasks well?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D5.3	<u>Getting all the household work done that you needed to do?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D5.4	<u>Getting your household work done as quickly as needed?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
<b>IF YOU WORK (PAID, NON-PAID, SELF EMPLOYED) OR GO TO SCHOOL, COMPLETE QUESTIONS D5.5-D5.8 BELOW. OTHERWISE, SKIP TO D6.1 AT THE TOP OF THE NEXT PAGE.</b>						
In the last <u>30 days</u> , how much <u>difficulty</u> did you have in:						
D5.5	<u>Your day to day work/school?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D5.6	<u>Doing your most important work/school tasks well?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D5.7	<u>Getting all the work done that you need to do?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D5.8	<u>Getting your work done as quickly as needed?</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do

*Please continue to the next page ...*

	In the last <u>30 days</u> :					
	<b><u>Participation in Society</u></b>					
D6.1	How much of a problem did you have in <u>joining in community activities</u> (for example, festivities, religious or other activities) in the same way as anyone else can	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D6.2	How much of a problem did you have because of <u>barriers or hindrances</u> in the world around you?	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D6.3	How much of a problem did you have <u>living with dignity</u> because of the attitudes and actions of others	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D6.4	How much <u>time</u> did <u>you</u> spend on your health condition, or its consequences	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D6.5	How much have <u>you</u> been <u>emotionally affected</u> by your health condition	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D6.6	How much has your health been a <u>drain on the financial resources</u> of you or your family	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D6.7	How much of a problem did your <u>family</u> have because of your health problems	None	Mild	Moderate	Severe	Extreme/ Cannot Do
D6.8	How much of a problem did you have in doing things <u>by yourself</u> for <u>relaxation or pleasure</u>	None	Mild	Moderate	Severe	Extreme/ Cannot Do

H2	Overall, how much did these difficulties <u>interfere</u> with your life?	Not at all	Mildly	Moderately	Severely	Extremely
H3	Overall, in the past 30 days, <u>how many days</u> were these difficulties present?	RECORD NUMBER OF DAYS ___/___				
H4	In the past 30 days, for how many days were you <u>totally unable</u> to carry out your usual activities or work because of any health condition?	RECORD NUMBER OF DAYS ___/___				
H5	In the past 30 days, not counting the days that you were totally unable, for how many days did you <u>cut back</u> or <u>reduce</u> your usual activities or work because of any health condition?	RECORD NUMBER OF DAYS ___/___				

***This completes the questionnaire. Thank you.***



1. How much difficulty do you **CURRENTLY** have with the following:

	No Difficulty At All	A Little Difficulty	Moderate Difficulty	Quite a bit of Difficulty	Extreme Difficulty
a. your ability to do physical exercise	①	②	③	④	⑤
b. your ability to carry heavy loads	①	②	③	④	⑤
c. your ability to interact with social groups (church sports, clubs)	①	②	③	④	⑤
d. your ability to get along with family or friends	①	②	③	④	⑤
e. your ability to handle personal responsibilities (e.g. maintaining the car, keeping appointments, running errands)	①	②	③	④	⑤
f. your ability to get your bills paid on time	①	②	③	④	⑤
g. your ability to have a close relationship (e.g. spouse, girlfriend/boyfriend)	①	②	③	④	⑤

2. Are you employed?

YES             NO

If **NO**, skip to question #3.

If **YES**:

How much difficulty do you **CURRENTLY** have with the following:

	No Difficulty At All	A Little Difficulty	Moderate Difficulty	Quite a bit of Difficulty	Extreme Difficulty
a. your overall work performance	①	②	③	④	⑤
b. the accuracy of your work	①	②	③	④	⑤
c. the quality of your work	①	②	③	④	⑤
d. your ability to complete assigned tasks	①	②	③	④	⑤
e. your ability to multi-task	①	②	③	④	⑤
f. your problem solving at work	①	②	③	④	⑤
g. your ability to get along with your coworkers	①	②	③	④	⑤

3. Overall, in the **PAST MONTH**, how would you rate your health?

- ① Excellent
- ② Very Good
- ③ Good
- ④ Fair
- ⑤ Poor

4. How often in the **PAST MONTH** have you visited a doctor or other medical professional for a physical condition?

- ① Zero
- ② Once
- ③ Twice
- ④ Three or Four Times
- ⑤ Five or More Times

5. How many **DAYS OF WORK** did you miss due to illness in the **PAST MONTH**?

- ① 0 days
- ② 1 day
- ③ 2 days
- ④ 3 days
- ⑤ 4-5 days
- ⑥ 6 or more days

6. In the **PAST 3 MONTHS**, have you:

- a. Been pulled over for a speeding violation?
- b. Been pulled over for another traffic violation?
- c. Been involved in a car/motorcycle accident while you were driving?
- d. Driven a car or motorcycle recklessly?
- e. Driven a motorcycle above the speed limit?
- f. Caused an accident where someone was hurt or property was damaged?
- g. Drove or rode in a car without using a seatbelt?
- h. Been arrested?
- i. Carried a weapon for protection when you didn't need to?
- j. Risked getting a Sexually Transmitted Disease (STD), (e.g. had sex with multiple partners, or did not use a condom)?

	No	Yes
a. Been pulled over for a speeding violation?	①	②
b. Been pulled over for another traffic violation?	①	②
c. Been involved in a car/motorcycle accident while you were driving?	①	②
d. Driven a car or motorcycle recklessly?	①	②
e. Driven a motorcycle above the speed limit?	①	②
f. Caused an accident where someone was hurt or property was damaged?	①	②
g. Drove or rode in a car without using a seatbelt?	①	②
h. Been arrested?	①	②
i. Carried a weapon for protection when you didn't need to?	①	②
j. Risked getting a Sexually Transmitted Disease (STD), (e.g. had sex with multiple partners, or did not use a condom)?	①	②

**Appendix H**

**Approvals**

08 SEP 11

MEMORANDUM THRU MAJ(P) Jeffrey L. Thomas, Chief, Military Psychiatry Branch, Walter Reed Army Institute of Research, 503 Robert Grant Ave., Silver Spring, MD 20910

COL Paul D. Bliese, Director, Center for Military Psychiatry and Neuroscience, Walter Reed Army Institute of Research, 503 Robert Grant Ave., Silver Spring, MD 20910

FOR Jody Ference, Director, Division of Human Subjects Protection, Walter Reed Army Institute of Research, 503 Robert Grant Ave, Silver Spring, MD 20910-7500

SUBJECT: Submission of an amendment to the Site-Specific Addendum #1480D, version 4, 08 September 2011 of #1480 Land Combat Study II: Impact of deployment and combat experiences on the mental health and well-being of military service members and their families

1. This amendment seeks permission to conduct a ~3 month post-deployment follow-up survey of the 4<sup>th</sup> Brigade of the 3<sup>rd</sup> Infantry Division. The Soldiers of this brigade were surveyed at ~6 months post-deployment (#1480D version 1.01, 18 May 2009) and at 12 months post-deployment (#1480D version 1.02, 12 November 2009) after a previous Iraq deployment.
2. Included with this submission are:
  - a. The updated SSA (#1480D, Amendment 2, version 4, 08 SEP 11).
  - b. The FRAGO from the 3<sup>rd</sup> Infantry Division leadership that shows support for this data collection.
  - c. An updated version of the #1480D survey instrument (#1480D, version 5, 08 SEP 11).
  - d. An updated participant information sheet (#1480D, version 4, 08 SEP 11).
  - e. The recruitment script (#1480D version 3, 08 SEP 11).
3. As the PI, I will carry out the study as outlined in the attached protocol.
4. Please contact the undersigned by Outlook or at (301) 319-9138 for any additional information.



PI Signature Block

**Division Director (or Detachment Commander) Approval**

**"I approve this protocol as written.**

**The study is:**

- ✓ scientifically feasible & valid,**
- ✓ militarily relevant, and**
- ✓ has appropriate resources (funding, personnel, equipment, etc.)."**

A handwritten signature in black ink, appearing to read "Paul Bini". The signature is written in a cursive, flowing style.

**Division Director Signature Block**

MEMORANDUM FOR Director, Division of Human Subjects Protection, Walter Reed Army Institute of Research (WRAIR), 503 Robert Grant Ave., Silver Spring, MD 20910-7500

SUBJECT: Recommendation of Approval for Amendment #2 to the Minimal Risk Human Subjects Research Site Specific Addendum **WRAIR #1480D**

1. I recommend approval of amendment #2 to the Site-Specific Addendum (SSA) **WRAIR #1480D**, entitled, "4<sup>th</sup> Brigade of the 3<sup>rd</sup> Infantry Division (3<sup>rd</sup> ID) at Fort Stewart, Georgia," (Version 4.0, dated 08 September 2011) which is being conducted under core protocol **WRAIR #1480**, entitled, "Land Combat Study II: Impact of Deployment and Combat Experiences on the Mental Health and Well-being of Military Service Members and their Families," submitted by Lyndon Riviere, Ph.D., Military Psychiatry Branch, Center for Military Psychiatry and Neurosciences Research, WRAIR.
2. This amendment includes the addition of a ~3 month post-deployment follow-up survey for the 4<sup>th</sup> Brigade of the 3<sup>rd</sup> ID. The Soldiers of this Brigade were surveyed at ~6 months post-deployment and at 12 months post-deployment after a previous Iraq deployment.
3. This assessment is conducted at the request of the 3<sup>rd</sup> ID Headquarters as per fragmentary order (FRAGO), dated 20 July 2011. Up to 4,000 Soldiers will be surveyed at Fort Stewart for the purposes of this ~3 month post-deployment follow-up survey activity.
4. This amendment was initially submitted to the WRAIR Office of the Science Director for scientific review and approval on 12 September 2011. Members of the Scientific Review Committee (SRC) reviewed this amendment, and scientific approval was provided by the Deputy Science Director for Research Review on 19 September 2011. Subsequent to scientific approval, an updated survey questionnaire (Version 6, dated 21 September 2011) was submitted to include the addition of a scale similar to the post-traumatic growth inventory. The updated survey was sent to the WRAIR Office of the Science Director for review and scientific approval was issued by the SRC Chair on 26 September 2011.
5. This amendment qualifies for expedited review in accordance with 32 CFR §219.110(b)(2), as it involves a minor change to previously approved research. The waiver of written informed consent granted by the fully convened WRAIR Institutional Review Board (IRB) on 10 September 2008 for the core protocol, WRAIR #1480, continues to apply to this SSA in accordance with 32 CFR §219.110(c) with the provision of an information sheet.
6. The core protocol is funded through the RAD III – Military Operational Medicine Research Program, Interventions to Enhance Psychological Resilience and Prevent Psychiatric Casualties.
7. The following documents are included as part of this approval recommendation for amendment #2: SSA (Version 4.0, dated 08 September 2011), Participant Information

MCMR-UWZ-C

SUBJECT: Recommendation of Approval for Amendment #2 to the Minimal Risk Human Subjects Research Site Specific Addendum **WRAIR #1480D**

Sheet (4.0, dated 08 September 2011), In-Garrison Service Member Recruiting Script (Version 3.0, dated 08 September 2011), and survey questionnaire (Version 6, dated 21 September 2011).

8. As a reminder, the study expiration date for WRAIR #1480 is **10 September 2012**. The Principal Investigator is responsible for submitting a continuing review report to include a summary of all SSA activities to the WRAIR DHSP in time for the report to be reviewed and accepted by the WRAIR IRB prior to this expiration date to avoid an interruption in work. A study closeout report or request for an extension for WRAIR #1480 must be submitted to the WRAIR DHSP no later than five (5) years from the initial date of approval (i.e., **10 September 2013**). No changes, amendments, or addenda may be made to the protocol/SSA without prior WRAIR IRB review and approval.

9. The point of contact for this action is Carson M. Cancel, M.A., CIP, CCRP, at (301) 319-9725 or at [carson.cancel@us.army.mil](mailto:carson.cancel@us.army.mil).



MARY A. MAROVICH, M.D., DTM&H, FACP  
Chair, Institutional Review Board  
Walter Reed Army Institute of Research

CF:

Lyndon Riviere, Ph.D.  
Paul Bliese, COL, MS  
Jeffrey Thomas, MAJ, MS



Walter Reed Army Institute of Research  
Soldier Well-Being Survey



WRAIR-1480

4th/3ID October 2011

**What is your current unit?**

Battalion:

Company:

- 1-76 FA (Patriots)
- 4-3 BTB (Sentinels)
- 3-7 IN (Cottonbalers)
- 6-8 CAV (Mustangs)
- 703rd BSB (Maintainers)
- 3-15 IN (China)
- Other \_\_\_\_\_

- A
- B
- C
- D
- E
- F
- G
- HHB
- HHC
- HHT
- Other \_\_\_\_\_

For this survey we are asking you to create a unique pin-code that protects your identity and allows us to match your responses over time.

The pin-code will be created by multiplying the last five (5) digits of your SSN with a random code based on where you were when you first heard about 9/11. Our final database will contain **ONLY THIS FINAL PIN-CODE**.

This cover sheet will be **SHREDDED** after we conduct quality control. These measures are designed to make it difficult to personally identify your survey.

What State/US Territory were you in when you first heard about 9/11?

- |                                   |                                      |  |
|-----------------------------------|--------------------------------------|--|
| <input type="radio"/> Alabama     | <input type="radio"/> Maine          | <input type="radio"/> Pennsylvania     |
| <input type="radio"/> Alaska      | <input type="radio"/> Maryland       | <input type="radio"/> Puerto Rico      |
| <input type="radio"/> Arizona     | <input type="radio"/> Massachusetts  | <input type="radio"/> Rhode Island     |
| <input type="radio"/> Arkansas    | <input type="radio"/> Michigan       | <input type="radio"/> South Carolina   |
| <input type="radio"/> California  | <input type="radio"/> Minnesota      | <input type="radio"/> South Dakota     |
| <input type="radio"/> Colorado    | <input type="radio"/> Mississippi    | <input type="radio"/> Tennessee        |
| <input type="radio"/> Connecticut | <input type="radio"/> Missouri       | <input type="radio"/> Texas            |
| <input type="radio"/> Delaware    | <input type="radio"/> Montana        | <input type="radio"/> Utah             |
| <input type="radio"/> Florida     | <input type="radio"/> Nebraska       | <input type="radio"/> Vermont          |
| <input type="radio"/> Georgia     | <input type="radio"/> Nevada         | <input type="radio"/> Virginia         |
| <input type="radio"/> Guam        | <input type="radio"/> New Hampshire  | <input type="radio"/> Washington       |
| <input type="radio"/> Hawaii      | <input type="radio"/> New Jersey     | <input type="radio"/> Washington, D.C. |
| <input type="radio"/> Idaho       | <input type="radio"/> New Mexico     | <input type="radio"/> West Virginia    |
| <input type="radio"/> Illinois    | <input type="radio"/> New York       | <input type="radio"/> Wisconsin        |
| <input type="radio"/> Indiana     | <input type="radio"/> North Carolina | <input type="radio"/> Wyoming          |
| <input type="radio"/> Iowa        | <input type="radio"/> North Dakota   | <input type="radio"/> Europe           |
| <input type="radio"/> Kansas      | <input type="radio"/> Ohio           | <input type="radio"/> Asia/Pacific Rim |
| <input type="radio"/> Kentucky    | <input type="radio"/> Oklahoma       | <input type="radio"/> Other location   |
| <input type="radio"/> Louisiana   | <input type="radio"/> Oregon         | <input type="radio"/> Don't remember   |

Please provide the last five digits of your Social Security Number:

SOCIAL SECURITY NO.				
XXX-X	-			
0	0	0	0	0
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9

DATE			
MONTH	DAY	YEAR	
<input type="radio"/> Jan		2	0
<input type="radio"/> Feb		1	1
<input type="radio"/> Mar	0	0	0
<input type="radio"/> Apr	1	1	1
<input type="radio"/> May	2	2	2
<input type="radio"/> June	3	3	3
<input type="radio"/> July	4	4	4
<input type="radio"/> Aug	5	5	5
<input type="radio"/> Sept	6	6	6
<input type="radio"/> Oct	7	7	7
<input type="radio"/> Nov	8	8	8
<input type="radio"/> Dec	9	9	9



**I. Demographics**

**1. I received an information sheet and I agree to allow my survey responses to be used for research purposes.**

No  
 Yes

2. AGE
- 18 - 19
  - 20 - 24
  - 25 - 29
  - 30 - 39
  - 40 or older

3. GENDER
- Male
  - Female

4. Highest Level of **Civilian Education?**
- Some High School
  - High School Diploma /GED
  - Some College/Associate's Degree
  - Bachelor's Degree
  - Graduate Degree

5. GRADE/RANK:
- E1 - E4
  - E5 - E9
  - Officer/Warrant

6. How many **YEARS** have you been in the military? If less than 1 year, please mark "00"

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

7. What is your battalion type?

- Combat Arms/Maneuver (e.g. IN, AR, FA, CAV)
- Combat Support/Service Support

8. What is your MOS? \_\_\_\_\_

**II. Deployment Experiences**

1. Where was your **MOST RECENT** deployment?

- Iraq
- Afghanistan
- SW Asia (other than Iraq/Afghanistan) \_\_\_\_\_
- Other Location: \_\_\_\_\_
- NA (Never deployed) - If you have **NEVER** deployed, please skip to page 4, question 1.

2. How many **TOTAL MONTHS** have you been deployed (combat or peacekeeping) since September 11, 2001?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

3. How many times since September 11, 2001 have you deployed for more than 30 days to any of the following? **MARK ALL THAT APPLY**

- Iraq (OIF/OND)
- Kuwait or Qatar (OIF)
- Afghanistan (OEF)
- Other \_\_\_\_\_

	Never	One Time	Two Times	Three Times	Four or More Times
Iraq (OIF/OND)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kuwait or Qatar (OIF)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afghanistan (OEF)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. For your **MOST RECENT DEPLOYMENT**, please indicate the **MONTH** and **YEAR** you arrived in theater.

Month	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
Year	① 2001 to 2008			② 2009			③ 2010			④ 2011		

5. For your **MOST RECENT DEPLOYMENT**, please indicate the **MONTH** and **YEAR** you returned home.

Month	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
Year	① 2001 to 2008			② 2009			③ 2010			④ 2011		

6. How many months did you have between your last two deployments?

7. Between your last two deployments, how many months were you away from home for training (e.g. NTC, JRTC)?

N/A- Only had 1 deployment

N/A- Only had 1 deployment

\_\_\_\_\_months

\_\_\_\_\_months

8. How often did you experience the following during your **MOST RECENT DEPLOYMENT**?

	Never	One Time	Two to Four Times	Five or More Times
Being attacked or ambushed	①	②	③	④
Receiving small arms fire	①	②	③	④
Seeing dead bodies or human remains	①	②	③	④
Handling or uncovering human remains	①	②	③	④
Seeing dead or seriously injured Americans	①	②	③	④
Knowing someone seriously injured or killed	①	②	③	④
Improvised explosive device (IED)/booby trap exploded near you	①	②	③	④
Being physically moved or knocked over from an explosion	①	②	③	④
Being in threatening situations where you were unable to respond because of rules of engagement	①	②	③	④
Shooting or directing fire at the enemy	①	②	③	④
Engaging in hand-to-hand combat	①	②	③	④
Clearing/searching homes or buildings	①	②	③	④
Witnessing brutality/mistreatment toward non-combatants	①	②	③	④
Being wounded/injured	①	②	③	④
Seeing ill/injured women or children who you were unable to help	①	②	③	④
Receiving incoming artillery, rocket, or mortar fire	①	②	③	④
Being directly responsible for the death of an enemy combatant	①	②	③	④
Feeling directly responsible for the death of a non-combatant	①	②	③	④
Feeling responsible for the death of US or ally personnel	①	②	③	④
Having a member of your own unit become a casualty	①	②	③	④
Had a close call, was shot or hit but protective gear saved you	①	②	③	④
Had a buddy shot or hit who was near you	①	②	③	④
Had a close buddy seriously injured or killed	①	②	③	④
Participating in IED/mine clearing operations	①	②	③	④
Saved the life of a Soldier or civilian	①	②	③	④
Observing abuse of Laws of War/Geneva Convention	①	②	③	④
Encountering sniper fire	①	②	③	④
Believed you would be seriously injured or killed	①	②	③	④

9. The following questions are about your transition from **YOUR MOST RECENT DEPLOYMENT** to home. Please rate the extent to which you agree or disagree with each statement:

	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE
The recent deployment has had a positive effect on my life.	1	2	3	4	5
I feel pride from my accomplishments during the recent deployment.	1	2	3	4	5
What I did during the deployment helped improve life for Iraqis/Afghans.	1	2	3	4	5
I am able to find meaning in what happened during my deployment.	1	2	3	4	5
I appreciate the little things in life more.	1	2	3	4	5
I appreciate my family and friends more than before I deployed.	1	2	3	4	5
I have matured as a result of my deployment.	1	2	3	4	5
I have accepted the things that happened during deployment.	1	2	3	4	5
I did the best I could during the deployment.	1	2	3	4	5
Surviving deployment is mostly a matter of luck.	1	2	3	4	5
I have been willing to talk to my family and friends about some of my worst experiences during deployment.	1	2	3	4	5
I am able to find meaning in my current job in garrison.	1	2	3	4	5
I feel mentally ready to deploy again.	1	2	3	4	5
I feel physically ready to deploy again.	1	2	3	4	5
I feel like I need more time before the next deployment.	1	2	3	4	5

**III. Health**

1. Below is a list of reactions that Soldiers sometimes experience following deployment or in response to other stressful life experiences.

Please mark how much you have been bothered by each problem

**IN THE PAST MONTH.**

	NOT AT ALL	A LITTLE BIT	MODERATELY	QUITE A BIT	EXTREMELY
Repeated, disturbing <i>memories, thoughts, or images</i> of a stressful experience	1	2	3	4	5
Repeated, disturbing <i>dreams</i> of a stressful experience	1	2	3	4	5
Suddenly <i>acting or feeling</i> as if a stressful experience were happening again (as if you were re-living it)	1	2	3	4	5
Feeling <i>very upset</i> when something reminded you of a stressful experience	1	2	3	4	5
Having <i>physical reactions</i> (like heart pounding, trouble breathing, sweating) when something reminded you of a stressful experience	1	2	3	4	5
Avoiding <i>thinking about or talking about</i> a stressful experience or avoiding <i>having feelings</i> related to it	1	2	3	4	5
Avoiding <i>activities or situations</i> because they reminded you of a stressful experience	1	2	3	4	5
Trouble <i>remembering important parts</i> of a stressful experience	1	2	3	4	5
<i>Loss of interest</i> in activities that you used to enjoy	1	2	3	4	5
Feeling <i>distant or cut-off</i> from other people	1	2	3	4	5
Feeling <i>emotionally numb</i> or being unable to have loving feelings for those close to you	1	2	3	4	5
Feeling as if your <i>future</i> somehow will be <i>cut short</i>	1	2	3	4	5
Trouble <i>falling or staying asleep</i>	1	2	3	4	5
Feeling <i>irritable</i> or having <i>angry outbursts</i>	1	2	3	4	5
Having <i>difficulty concentrating</i>	1	2	3	4	5
Being " <i>super alert</i> " or watchful or on-guard	1	2	3	4	5
Feeling <i>jumpy</i> or easily startled	1	2	3	4	5

2. Over the **PAST MONTH**, how often have you been bothered by any of the following problems?

	Not At All	Few or Several Days	More Than Half The Days	Nearly Every Day
Little interest or pleasure in doing things	1	2	3	4
Feeling down, depressed, or hopeless	1	2	3	4
Trouble falling or staying asleep, or sleeping too much	1	2	3	4
Feeling tired or having little energy	1	2	3	4
Poor appetite or overeating	1	2	3	4
Feeling bad about yourself - or that you are a failure or have let yourself or your family down	1	2	3	4
Trouble concentrating on things, such as reading the newspaper or watching television	1	2	3	4
Moving or speaking so slowly that other people could have noticed	1	2	3	4
Thoughts that you would be better off dead or of hurting yourself in some way	1	2	3	4
Feeling nervous, anxious or on edge	1	2	3	4
Not being able to stop or control worrying	1	2	3	4
Worrying too much about different things	1	2	3	4
Trouble relaxing	1	2	3	4
Feeling restless so that it's hard to sit still	1	2	3	4
Becoming easily annoyed or irritable	1	2	3	4
Feeling afraid as if something awful might happen	1	2	3	4

3. If you checked off **ANY** of the above problems in question 5, how **DIFFICULT** have these problems made it for you to do your work, take care of things at home, or get along with other people?

- 1 Not difficult at all
- 2 Somewhat difficult
- 3 Very difficult
- 4 Extremely difficult

4. In the **PAST MONTH**, how much have you experienced any of the following:

- NOT AT ALL
- A LITTLE BIT
- MODERATELY
- QUITE A BIT
- EXTREMELY

	1	2	3	4	5
Feeling critical of other people	1	2	3	4	5
Difficulty tolerating the mistakes of others	1	2	3	4	5
Difficulty tolerating your own mistakes	1	2	3	4	5
Feeling like you have to pay attention to every detail	1	2	3	4	5
Feeling like you have to do everything yourself because no one does things right	1	2	3	4	5
Having little patience for the stupid stuff people do	1	2	3	4	5
Having little patience for new Soldiers in the unit	1	2	3	4	5
Being overly controlling toward others	1	2	3	4	5
Difficulty trusting people outside of your unit	1	2	3	4	5
Difficulty trusting members of your own unit	1	2	3	4	5
Blaming yourself about things that happened	1	2	3	4	5
Feeling guilty about things that happened	1	2	3	4	5
Second-guessing your decisions	1	2	3	4	5
Feeling shame	1	2	3	4	5
Feeling like smashing things	1	2	3	4	5
Feeling like hitting someone	1	2	3	4	5
Feeling angry at Iraqi/Afghan people	1	2	3	4	5
Keeping anger bottled up inside	1	2	3	4	5
Boiling inside with anger	1	2	3	4	5

5. During the **PAST MONTH**, how much have you been bothered by any of the following problems?

	Not Bothered	Bothered A Little	Bothered A Lot
Stomach pain	1	2	3
Back pain	1	2	3
Pain in your arms, legs, or joints (knees, hips, etc.)	1	2	3
Headaches	1	2	3
Chest pain	1	2	3
Dizziness	1	2	3
Fainting spells	1	2	3
Feeling your heart pound or race	1	2	3
Shortness of breath	1	2	3
Constipation, loose bowels, or diarrhea	1	2	3
Nausea, gas, or indigestion	1	2	3
Pain or problems during sexual intercourse	1	2	3
Memory problems	1	2	3
Balance problems	1	2	3
Ringing in the ears	1	2	3
Difficulty falling asleep	1	2	3
Difficulty staying asleep	1	2	3
<b>Problem waking up too early</b>	1	2	3

6a. Have you experienced physical pain over the **PAST TWO WEEKS**?

- 0 No (Skip to question 7).
- 1 Yes

6b. If **yes**, for how long have you been experiencing physical pain?

- 1 less than 1 month
- 2 1-2 months
- 3 3-5 months
- 4 6-11 months
- 5 1 year or longer

7. How often have you experienced physical pain over the **PAST MONTH**?

- 1 Not at all
- 2 A few days
- 3 Several days
- 4 More than half the days
- 5 Nearly every day
- 6 Constantly

8. Over the **PAST MONTH** what has been your:

	No Pain					Extreme Pain					
<b>average</b> level of physical pain?	0	1	2	3	4	5	6	7	8	9	10
<b>lowest</b> level of physical pain?	0	1	2	3	4	5	6	7	8	9	10
<b>highest</b> level of physical pain?	0	1	2	3	4	5	6	7	8	9	10

9a. How often in the **PAST MONTH**, have you taken any of the following medications for pain?

	Never	Few or Several Days	More than Half the Days	Nearly Every Day
Over the counter pain medication (e.g., Aspirin, Tylenol, Motrin, Ibuprofen, Aleve)	1	2	3	4
Prescription pain medication that is not an opiate/narcotic (e.g., Celebrex, Vioxx, Bextra, Butalbitol)	1	2	3	4
Prescription opiate/narcotic pain medication (e.g., Oxycontin, Percocet, Vicodin, Tramadol, Tylenol with Codeine, Methadone)	1	2	3	4

9b. Please specify the opiate/narcotic pain medication:

10. Have you taken medication to help you sleep in the **PAST MONTH** (either over-the-counter or prescription)?

- No
- Yes (specify medication(s)): \_\_\_\_\_

11. Have you taken medication for a mental health problem (e.g., depression, anxiety, attention problem) in the **PAST MONTH**?

- No
- Yes (specify medication(s)): \_\_\_\_\_

12. Have you taken any prescription medication in the **PAST MONTH** for sleep, pain or a mental health problem that you received from someone other than a medical provider (e.g., from a friend, buddy, family member, dealer)?

- No
- Yes (specify medication(s)): \_\_\_\_\_

13. How often do Soldiers in your unit share prescription medications for sleep, pain or a mental health problem with each other?

- 1 Never
- 2 Seldom
- 3 Sometimes
- 4 Often

**IV. Work Environment** - "Unit" refers to the company, battery, or troop to which you are assigned.

1. Rate the following:

	VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH
Your personal morale	1	2	3	4	5
Morale in your unit	1	2	3	4	5

2. Please indicate how much you agree or disagree with the statements below:

- My organization strongly considers my goals and values.
- My organization really cares about my well-being.
- My organization cares about my opinion.
- My organization is willing to help me when I need a special favor.
- The members of my unit are cooperative with each other.
- The members of my unit know that they can depend on each other.
- The members of my unit stand up for each other.

	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE
My organization strongly considers my goals and values.	1	2	3	4	5
My organization really cares about my well-being.	1	2	3	4	5
My organization cares about my opinion.	1	2	3	4	5
My organization is willing to help me when I need a special favor.	1	2	3	4	5
The members of my unit are cooperative with each other.	1	2	3	4	5
The members of my unit know that they can depend on each other.	1	2	3	4	5
The members of my unit stand up for each other.	1	2	3	4	5

3. Thinking about your unit (company, battery or troop), rate how often the following occur.

In my unit, **NCOs**:

- tell Soldiers when they have done a good job.
- embarrass Soldiers in front of other Soldiers.
- try to look good to higher-ups by assigning extra missions or details to Soldiers.
- exhibit clear thinking and reasonable action under stress.

	Never	Seldom	Some-times	Often	Always
tell Soldiers when they have done a good job.	1	2	3	4	5
embarrass Soldiers in front of other Soldiers.	1	2	3	4	5
try to look good to higher-ups by assigning extra missions or details to Soldiers.	1	2	3	4	5
exhibit clear thinking and reasonable action under stress.	1	2	3	4	5

- 4. Thinking about your unit, (company, battery or troop) rate how often the following occur.

In my unit, **Officers:**

- tell Soldiers when they have done a good job.
- embarrass Soldiers in front of other Soldiers.
- try to look good to higher-ups by assigning extra missions or details to Soldiers.
- exhibit clear thinking and reasonable action under stress.

Never	Seldom	Some-times	Often	Always
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

**V. Health & Functioning**

1. How much difficulty do you **CURRENTLY** have with the following:

- your ability to do PT
- your ability to carry heavy loads
- your overall work performance
- the accuracy of your work
- the quality of your work
- your ability to complete assigned tasks
- your ability to multi-task
- your problem solving at work
- your ability to get along with your coworkers
- your ability to interact with social groups (church, sports, clubs)
- your ability to get along with family or friends
- your ability to handle personal responsibilities (e.g maintaining the car, keeping appointments, running errands)
- your ability to get your bills paid on time
- your ability to have a close relationship (e.g. spouse, girlfriend/boyfriend)

No Difficulty At All	A Little Difficulty	Moderate Difficulty	Quite A Bit of Difficulty	Extreme Difficulty
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5
1	2	3	4	5

2. In the **PAST 3 MONTHS:**

- has a family member or friend expressed concern about you
- has your supervisor expressed concern about your work performance
- have you received corrective training for substandard performance
- have you received a negative counseling statement
- have you received a Letter of Reprimand
- have you received an Article 15 or other UCMJ action

No	Yes
0	1
0	1
0	1
0	1
0	1
0	1

Questions 3-10 asks about your views about your health.

**3. Overall, how would you rate your health during the PAST MONTH?**

- 1 Excellent
- 2 Very Good
- 3 Good
- 4 Fair
- 5 Poor
- 6 Very Poor

**4. During the PAST MONTH, how much did physical health problems limit your usual physical activities (such as walking or climbing stairs)?**

- 1 Not at all
- 2 Very little
- 3 Somewhat
- 4 Quite a lot
- 5 Could not do physical activities

5. During the **PAST MONTH**, how much difficulty did you have doing your daily work, both at home and away from home, because of your physical health?

- ① Not at all    ② A little bit    ③ Some    ④ Quite a lot    ⑤ Could not do daily work

6. How much bodily pain have you had during the **PAST MONTH**?

- ① None    ② Very mild    ③ Mild    ④ Moderate    ⑤ Severe    ⑥ Very severe

7. During the **PAST MONTH**, how much energy did you have?

- ① Very much    ② Quite a lot    ③ Some    ④ A little    ⑤ None

8. During the **PAST MONTH**, how much did your physical health or emotional problems limit your usual social activities with family or friends?

- ① Not at all    ② Very little    ③ Somewhat    ④ Quite a lot    ⑤ Could not do social activities

9. During the **PAST MONTH**, how much have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)?

- ① Not at all    ② Slightly    ③ Moderately    ④ Quite a lot    ⑤ Extremely

10. During the **PAST MONTH**, how much did personal or emotional problems keep you from doing your usual work, school or other daily activities?

- ① Not at all    ② Very little    ③ Somewhat    ④ Quite a lot    ⑤ Could not do daily activities

11. Did any of the these experiences ever happen to you?

During the **PAST YEAR** did you:

- often think a lot about death, either your own or someone else's, or death in general?
- seriously think about committing suicide?
- make a plan for committing suicide?

No	Yes
0	1
0	1
0	1
0	1

In your lifetime, have you ever attempted suicide?

12. Overall, in the past 30 days:

	Not at all	Some-what	Very Much	Not applicable					
I had trouble taking care of myself (keeping up with household chores, managing medical care, being physically active, doing activities or hobbies that were or relaxing).	①	②	③	④	⑤	⑥	⑦	⑧	⑨
I had trouble in my romantic relationships with my spouse or partner.	①	②	③	④	⑤	⑥	⑦	⑧	⑨
I had trouble with my family relationships.	①	②	③	④	⑤	⑥	⑦	⑧	⑨
I had trouble at work.	①	②	③	④	⑤	⑥	⑦	⑧	⑨
I had trouble with my friendships and socializing.	①	②	③	④	⑤	⑥	⑦	⑧	⑨
I had trouble in my relationship with my children.	①	②	③	④	⑤	⑥	⑦	⑧	⑨
I had trouble with training or school.	①	②	③	④	⑤	⑥	⑦	⑧	⑨



13. How often in the **PAST MONTH** have you gone to sick call or visited a doctor or other medical professional for a physical condition?

- 0 Zero
- 1 Once
- 2 Twice
- 3 Three or Four Times
- 4 Five or More Times

14. How many **DAYS OF WORK** did you miss due to illness in the **PAST MONTH**?

- 0 0 days
- 1 1 day
- 2 2 days
- 3 3 days
- 4 4-5 days
- 5 6 or more days

15. On average, how many hours of sleep have you gotten per day during the **last week**?

- 1 3 or fewer
- 2 4
- 3 5
- 4 6
- 5 7
- 6 8 or more

16. How often do you have a drink containing alcohol?

- 1 Never
- 2 One time monthly or less
- 3 Two or four times a month
- 4 Two or three times per week
- 5 Four or more times a week

17. How many drinks containing alcohol do you have on a typical day when you are drinking ?

- 0 0 drinks
- 1 1 or 2 drinks
- 2 3 or 4 drinks
- 3 5 or 6 drinks
- 4 7 to 9 drinks
- 5 10 or more

18. How often do you have six or more drinks on one occasion?

- 1 Never
- 2 Less than monthly
- 3 Monthly
- 4 Weekly
- 5 Daily or almost daily

19. In the **PAST MONTH**:

	No	Yes
have you felt you wanted or needed to cut down on your drinking?	<input type="radio"/> 0	<input type="radio"/> 1
have you used alcohol more than you meant to?	<input type="radio"/> 0	<input type="radio"/> 1
did you drive after having several drinks ?	<input type="radio"/> 0	<input type="radio"/> 1
did you ride with a driver who had too much to drink?	<input type="radio"/> 0	<input type="radio"/> 1
have you been late or missed work because you were drinking or hung over?	<input type="radio"/> 0	<input type="radio"/> 1
have you had 5 or more drinks on one occasion?	<input type="radio"/> 0	<input type="radio"/> 1
have you used alcohol to forget about things that happened during deployment?	<input type="radio"/> 0	<input type="radio"/> 1

20. In the **PAST 3 MONTHS**, have you had a problem with alcohol/drugs that resulted in counseling by your unit or referral to the Army Substance Abuse Program (ASAP)?

- 0 No
- 1 Yes

21. In the **PAST 3 MONTHS**, has your Commander required you receive a mental health evaluation, (not related to a security clearance)?

- 0 No
- 1 Yes

22. In the **PAST 3 MONTHS**, have you been referred to the Family Advocacy Program (FAP) for concerns about domestic violence?

- 0 No
- 1 Yes

23. In the **PAST 3 MONTHS**, have you:

	No	Yes
Been pulled over for a speeding violation?	0	1
Been pulled over for another traffic violation?	0	1
Been involved in a car/motorcycle accident while you were driving?	0	1
Driven a car or motorcycle recklessly?	0	1
Driven a motorcycle above the speed limit?	0	1
Caused an accident where someone was hurt or property was damaged?	0	1
Drove or rode in a car without using a seatbelt?	0	1
Been arrested?	0	1
Carried a weapon for protection when you didn't need to?	0	1
Risked getting a Sexually Transmitted Diseases (STD), (e.g. had sex with multiple partners, or did not use a condom)?	0	1

24. On average, how many cigarettes do you smoke per day?

0 0 0 0  
 1 1 1 1  
 2 2 2 2  
 3 3 3 3  
 4 4 4 4  
 5 5 5 5  
 6 6 6 6  
 7 7 7 7  
 8 8 8 8  
 9 9 9 9

25. On average, how many times do you use smokeless tobacco per day (e.g. dip, chew, snuff)?

0 0 0 0  
 1 1 1 1  
 2 2 2 2  
 3 3 3 3  
 4 4 4 4  
 5 5 5 5  
 6 6 6 6  
 7 7 7 7  
 8 8 8 8  
 9 9 9 9

**VI. Life Experiences**

1. Please rate how much you agree or disagree with the following statements:

	STRONGLY DISAGREE	DISAGREE	NEITHER AGREE NOR DISAGREE	AGREE	STRONGLY AGREE
I have a fiery temper.	1	2	3	4	5
I am a hotheaded person.	1	2	3	4	5
When I am angry, I keep anger bottled up inside.	1	2	3	4	5
When I am angry, I boil inside.	1	2	3	4	5
When I am angry, I argue with others.	1	2	3	4	5
When I am angry, I yell at others.	1	2	3	4	5

2. Rate how well you have been able to control your anger in the **PAST MONTH**:

- 1 Very Poor Control
- 2 Poor Control
- 3 Moderate Control
- 4 High Control
- 5 Very High Control

3. Does anger help you in any way to perform your duties now (e.g., helps you focus, motivates you, or helps you maintain control/discipline)?

- 1 Not at all
- 2 Rarely
- 3 Sometimes
- 4 Often
- 5 Very Often

4. How often in the **PAST MONTH** did you.....

	Never	One Time	Two Times	Three or Four Times	Five or More Times
get angry at someone and yell or shout at them	1	2	3	4	5
get angry with someone and kick or smash something, slam the door, punch the wall, etc.	1	2	3	4	5
threaten someone with physical violence	1	2	3	4	5
get into a fight with someone and hit the person	1	2	3	4	5

**VII. Healthcare**

1a. In the **PAST 3 MONTHS** did you receive help for a stress, emotional, alcohol, or family problem?

(If **NO**, skip to #2)

- 0 No
- 1 Yes

1b. If **YES**, did you receive help from any of the following? **MARK ALL THAT APPLY.**

- fellow Soldier?
- medic in your unit?
- Chain of Command?
- Chaplain/clergy?
- mental health professional at a military facility?
- general medical doctor at a military facility?
- mental health professional at a civilian facility?
- general medical doctor at a civilian facility?
- Military One Source?
- VA Health Facility or Vet Center?

2. Approximately how many total visits with a mental health professional have you had in the **PAST SIX MONTHS**?

- 0 None
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12 or more

3a. Are you currently in mental health treatment?

- 0 No, (Skip to question 4a)
- 1 Yes

3b. If **yes**, how satisfied are you with this care?

- 1 Very dissatisfied
- 2 Somewhat dissatisfied
- 3 Somewhat satisfied
- 4 Very satisfied

4a. In the **PAST SIX MONTHS** back home or since returning from deployment, did any medical provider recommend or refer you to mental health care?

- 0 No (Skip to question 5a)
- 1 Yes

4b. If **yes**, did you follow-up with the mental health care as recommended?

- 0 No
- 1 Yes

5a. Did you start receiving mental health treatment anytime in the **PAST SIX MONTHS**, but stopped or dropped out before completing the treatment?

- No, (Skip to question 6)
- Yes

5b. If **yes**, what were your reasons for dropping out?

	NO	YES	NA
Got better and didn't need further treatment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Too busy with work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appointments not available or too far apart	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation not available	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stigma (concerned that unit members or leaders might treat you differently or lose confidence in you)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt like you could take care of your problems on your own	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Treatment didn't seem to be working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Didn't feel comfortable with the mental health professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Didn't feel that the mental health professional was sufficiently caring	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Didn't feel that the mental health professional was competent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did not like the way the mental health professional communicated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Felt judged or misunderstood by the mental health professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did not have sufficient time with the mental health professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did not like the treatment option of medication offered by the mental health professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did not like the treatment option of talk therapy offered by the mental health professional	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worried that the mental health treatment would not be kept confidential from your unit leaders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mental health professional moved/you PCS'd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other, please explain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Are you **CURRENTLY** experiencing a stress, emotional, alcohol, or family problem?

- No
- Yes, Mild
- Yes, Moderate
- Yes, Severe

7. Are you **CURRENTLY** interested in receiving help for a stress, emotional, alcohol, or family problem?

- No
- Yes

8. Rate each of the following factors that might affect your decision to receive mental health counseling or services.

STRONGLY DISAGREE    DISAGREE    NEITHER AGREE NOR DISAGREE    AGREE    STRONGLY AGREE

	1	2	3	4	5
My unit leadership might treat me differently	1	2	3	4	5
Members of my unit might have less confidence in me	1	2	3	4	5
I would be seen as weak	1	2	3	4	5
My leaders would blame me for the problem	1	2	3	4	5
It would harm my career	1	2	3	4	5
It might affect my security clearance	1	2	3	4	5
It would be too embarrassing	1	2	3	4	5
It would hurt my chances of deploying	1	2	3	4	5
I don't have adequate transportation	1	2	3	4	5
It is difficult to schedule an appointment	1	2	3	4	5
Mental health services are not available	1	2	3	4	5
I don't know where to get help	1	2	3	4	5
My workload does not allow time for treatment	1	2	3	4	5
There would be difficulty getting time off work for treatment	1	2	3	4	5
Psychological problems tend to work themselves out without help	1	2	3	4	5
People should be able to solve their psychological problems themselves	1	2	3	4	5
There is sufficient information available for people to be able to help themselves	1	2	3	4	5
I know how to help myself	1	2	3	4	5
Strong people can resolve psychological problems by themselves	1	2	3	4	5
I would prefer to manage my problems on my own	1	2	3	4	5
I would rather get information on how to deal with the problem on my own	1	2	3	4	5
Getting mental health treatment should be a last resort	1	2	3	4	5
I don't trust mental health professionals	1	2	3	4	5
I would think less of a team member if I knew he/she was receiving mental health counseling	1	2	3	4	5
Mental health counseling can be helpful for those who need it	1	2	3	4	5
It takes courage to get treatment for a mental health problem	1	2	3	4	5

**VII. FAMILY**

1. Are you currently in a committed relationship (e.g., spouse, fiancé, girlfriend/boyfriend)?

- 0 No
- 1 Yes

1. What is your current marital status?

- 1 Single, never married - **Continue to question 7.**
- 2 Married - **Skip to question 3.**
- 3 Separated - **Continue to question 3.**
- 4 Divorced - **Continue to question 7.**
- 5 Widowed - **Continue to question 7.**

3. How many years have you been married to your **CURRENT SPOUSE?**

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

4. Please rate how much you disagree or agree with the following:

STRONGLY DISAGREE    DISAGREE    NEITHER AGREE NOR DISAGREE    AGREE    STRONGLY AGREE

	1	2	3	4	5
I have a good marriage.	1	2	3	4	5
My relationship with my spouse is very stable.	1	2	3	4	5
I really feel like a part of a team with my spouse.	1	2	3	4	5
My spouse and I frequently have disagreements or conflicts.	1	2	3	4	5
My spouse is willing to listen when I need to talk about my worries/problems.	1	2	3	4	5
I can share my feelings or concerns with my spouse.	1	2	3	4	5
My spouse and I share responsibility for getting things done within our family.	1	2	3	4	5

5. In the last year, infidelity (cheating) has been a problem in my marriage.

- 0 No
- 1 Yes
- 2 Unsure

6. Are you or your spouse currently planning to get a divorce/separation?

- 0 No
- 1 Yes

7. Do you currently live with your boyfriend/girlfriend?

- 0 No
- 1 Yes
- 2 Not applicable

8. Number of previous marriages:

- 0
- 1
- 2
- 3 or more
- 4 Not applicable

9. How many children are in your household?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

10. How many children do you support financially?

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

**THANK YOU FOR COMPLETING THIS SURVEY!**

Please provide any additional comments on the back of the survey, if needed.



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
WALTER REED ARMY INSTITUTE OF RESEARCH  
503 ROBERT GRANT AVENUE  
SILVER SPRING, MD 20910-7500

MCMR-UWZ-B

19 September 2011

MEMORANDUM FOR: Director, Division of Human Subjects Protection, Walter Reed Army Institute of Research (WRAIR), 503 Robert Grant Ave., Silver Spring, Maryland 20910-7500

SUBJECT: Scientific approval of amendment #2 to WRAIR #1480D (Version 4, dated 8 September 2011)

- 1) Amendment #2 to human subjects research protocol WRAIR #1480D, entitled, "4<sup>th</sup> Brigade of the 3 ID" (Version 4, dated 8 September 2011), which is a site specific addendum (SSA) to the core protocol, "Land Combat Study 2: Impact of deployment and combat experiences on the mental health and well-being of military service members and their families", was submitted by Lyndon Riviere, Ph.D., Department of Behavioral Biology, Division of Psychiatry and Neuroscience, to the Division of Human Subjects Protection, WRAIR.
- 2) The changes to the SSA were reviewed by Drs Raymond Genovese and Kristopher Paolino and Mr Meng Shi and found scientifically valid.
- 3) The revisions made to the protocol include an additional time point to survey post-deployment soldiers at Fort Stewart. The revision is reasonable and potentially very valuable, providing further information about Soldier health. This amendment is scientifically approval.
- 4) Scientific approval does not constitute sufficient approval to proceed with the protocol; rather, it is a necessary first step before ethical human use review by the WRAIR IRB. Authority to implement the protocol will be given by the WRAIR Commander after IRB action.
- 5) The undersigned can be reached at 301-319-9019 and by email at [sr1@amedd.army.mil](mailto:sr1@amedd.army.mil).

A handwritten signature in black ink that reads "Sara Rothman".

SARA W ROTHMAN, PhD  
Deputy Science Director for  
Research Review

## I. Unit/Site Specific Addendum Coversheet

Protocol name: #1480 - Land Combat Study II: Impact of deployment and combat experiences on the mental health and well-being of military service members and their families

Name of the Unit: 4<sup>th</sup> Brigade of the 3<sup>rd</sup> Infantry Division (3rd ID) at Fort Stewart, Georgia

Support: This data collection is supported by the 4/3<sup>rd</sup> ID under FRAGO # 143 (20 JUL 11)

Unit PI: Lyndon A. Riviere



**II. Key Study Personnel & Consultants**

WRAIR (Department of Military Psychiatry) Personnel:

Dr. Lyndon Riviere, MAJ(P) Jeffrey Thomas, Dr. Joshua Wilk, MAJ Gary Wynn, CPT Michael Wood, CPT Edward Edens, CPT Tracy Johnson, CPT Paul Wright, Dr. Phillip Quartana, Julie Clark, Kristina Clark, and Paul Kim.

**III. Unit Assurance and Concurrence**

The FRAGO from the 3<sup>rd</sup> ID leadership that provides authorization for the study is attached.

**IV. Unit Description**

**a. Describe in detail the study site, to include but not limited to, the location.**

The study will be conducted among soldiers of the 4<sup>th</sup> Brigade of the 3<sup>rd</sup> Infantry Division (4/3<sup>rd</sup> ID) at Fort Stewart. This is a ~3months post-deployment data collection, and is a follow-up to the 12-months post data collection conducted in December 2009.

**b. Describe in detail the facilities where the study will be conducted, to include but not limited to, the location buildings and equipment available for the conduct of the study, number of study staff and their availability at the study site, etc.**

The data collections will be done in on-post facilities such as theaters, gymnasiums, classrooms, and at assigned training locations. The WRAIR research team will provide the information sheets, the paper questionnaires, and the pencils needed to collect the data. Each site will be staffed by at least two team members who are responsible for consenting the Soldiers, distributing the information sheets, questionnaires and pencils, collecting the questionnaires and responding to any questions.

**V. Background Information for Selection of Unit and Study Population**

**a. Explain the rationale for conducting research in this site.**

Among this study's goal is to examine the effects of multiple and extended deployments on Soldier well-being. Soldiers of the 4/3<sup>rd</sup> ID have faced multiple OIF deployments including a 15 months deployment in 2008-2009, They have also recently returned from a 12 -month deployment to Iraq and we intend to examine how their well-being has changed since they last survey.

**b. Explain how this research relates to the current health care needs of the community.**

Given the evolving dynamics of Operations Enduring and Iraqi Freedom in Afghanistan and Iraq, it is important that we continue to monitor and document the well-being of Soldiers who have served in these conflicts. Importantly, we also need to better understand what affects Soldiers' utilization of mental health care so that it can be optimally delivered.

## VI. Study Population

- a. How many subjects are planned for screening and enrollment at this site?  
4,000 soldiers
- b. What is the legal age at which individuals can provide their own consent to participate in research? 18
- c. What is the study population's ethnic composition? Whites, Blacks, Hispanics, Asians, and Native American/Pacific Islander
- d. What is the literacy level and general level of education? High school graduates or equivalent and above
- e. Are there any additional benefits to the individual, family and community at this site over those described in the protocol (for example cross-over vaccinations for volunteers in the placebo arm of the study, better health care monitoring for the volunteers and their families, building local medical or research capacity and expertise)?  Yes  No

If yes, describe:

## VII. Medical Care

- a. Does the study require a plan for continued health care, medications, and/or referral to the local health care providers after the completion of the study?  
 Yes  No  NA

If yes, describe the plan:

- b. Do you plan to offer the study drug treatment to placebo- or comparator-arm subjects after the study is completed?  Yes  No  NA

- c. Describe the medical care that will be available to volunteers in the event of a research-related injury, to include who will provide the care, the duration of the care the cost of this care to the subject.

In the unlikely event that a volunteer should be injured or become ill as a direct result of participation in this study, medical care will be provided at no cost at the installation military treatment facility. The volunteer will not receive any injury compensation, only medical care.

#### VIII. Unit Unique Modifications to the Protocol

For this unit, we have added a few measures beyond those contained on the survey instruments for SSA #1480D, versions 1.01 & 1.02. The questions highlighted on pages 1, 8 & 9 of the questionnaire are new ones (not included on previous SSAs). The questions, on page 3, 4, 7, 10, 11, 12, 13, 7 14 were included on the questionnaire for #1480H (version 2, 27 June 2011). The new measures have been included because they may be important indicators of emerging issues among Soldiers that need to be assessed. To reduce response burden, given the additions, we have omitted some questions.

The questionnaires provide space for the Soldiers to respond in writing to some questions or to write general comments. All these responses or comments will be entered verbatim into Word files. However, any personal identifiers such as names or personal pronouns will be stripped from the transcripts and replaced with a blank line or Xs in the Word files.

#### IX. Site/Unit Unique Recruitment/Consent Processes

- a. Will recruitment materials to be used be translated in the language of the volunteer?  
 Yes  No  NA

*If 'Yes' please provide copies of all the recruitment materials that will be used and translated copies along with Certification of Translation Accuracy declaration (this should include, on the English version, the statement "I certify that this is an accurate and true translation" as well as the signature, name, address, phone number and, if available, FAX number of the translator).*

- b. *If not already provided in the protocol, describe local cultural and legal considerations in obtaining informed consent of research volunteers, for example, individual meetings with host national and local government officials; proxy consent by tribe elder, community, or husband consent; assent in children, thumb print in lieu of signature, use of information sheet.*

The procedures involving the information sheet have already been described in the core protocol.

- c. Does the informed consent document contain a local emergency contact phone numbers for volunteers?

\_\_\_ Yes X No \_\_\_ NA

*If not, this information must be incorporated into the document.*

The contact information for the PIs and the Walter Reed Army Institute of Research's IRB are included on the participant information sheet. The study team will have the contact information for the brigade surgeons of the 3<sup>rd</sup> ID.

- d. Are there any unique issues/regulations regarding use of private health information?

\_\_\_ Yes X No \_\_\_ NA

If yes, please describe.

#### X. Site/Unit Unique Specimen/Data Management

- a. Will samples be taken out of the country for analysis, etc?

\_\_\_ Yes \_\_\_ No X NA

If yes, is this explicitly stated in the consent form? \_\_\_ Yes \_\_\_ No

- b. Are there unique data and/or specimen management issues for this country, for example any restrictions (cultural, regulatory, etc.) to moving data and/or samples out of country?

\_\_\_ Yes \_\_\_ No X NA

If yes, describe:

#### XI. Additional References Unique to the Site/Unit

- such as site specific disease epidemiology
- host national human subjects protection regulatory documents (please provide if not on file)

There are no additional references.

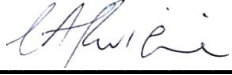
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NOTE: before the WRAIR Commander will issue an approval for the implementation of the research at this site, the WRAIR IRB and local Ethics Committee's final approved version of all

recruitment material, information sheets and consent forms, that are *in the language(s) of study participants*, must be submitted for review.

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XII. Site/Unit Specific Principal Investigator Agreement Page



\_\_\_\_\_  
Principal Investigator's Signature

08 September 2011

Date