



# The Mental Health Needs Assessment

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#### 1.0 INTRODUCTION

Throughout the 1990s, allied military medicine and military medical research struggled to determine the nature, causes, and solutions for a series of medically-unexplained symptoms that seemed to plague participants in the 1990-1991 Persian Gulf War. Millions of dollars were spent with mixed results and lingering concerns. A number of researchers and leaders believed (at least at the time) that these phenomena were mostly attributable to psychiatric rather than physical problems. Following the terrorist attacks on September 11, 2001, the United States military again became engaged in major combat operations in the Middle East, prompting concern that another "Gulf War Syndrome" outbreak could occur.

In response to this possibility, the Department of Military Psychiatry at the Walter Reed Army Institute of Research (WRAIR) began the Land Combat Study to measure the prevalence of psychiatric and behavioral problems among Soldiers at various points in the deployment cycle (Hoge, et al., 2004). However, not only did WRAIR survey teams visit units and collect data from Soldiers, they took portable scanners with them into the field and scanned, cleaned, and back-briefed local commanders prior to leaving the area. Commanders and medical personnel assigned to the various units enjoyed the immediate survey feed-back on the prevalence of mental health problems within their units, and the demand from non-surveyed units as well as repeat requests from surveyed units made it necessary to devise a survey tool that units could self-administer.

Simultaneously, in 2003, the U.S. Army Medical Department in conjunction with the Coalition Forces Land Component Command (CFLCC) in Kuwait and the Combined Joint Task Force – 7 (CJTF-7) in Iraq sent a team of senior behavioral healthcare (BH) personnel to survey personnel in the Operation Iraqi Freedom (OIF) theater of operations. One finding from that assessment was that prevention and early intervention services were being offered without any prior assessment of unit or Soldier need, and the team thus made a

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recommendation that an anonymous, population-based unit needs assessment survey be developed and fielded to organic medical, chaplain, and mental health personnel to correct this deficiency (Operation Iraqi Freedom Mental Health Advisory Team, 2003, 2004).

# 2.0 DEVELOPMENT OF THE UBHNAS

The Unit Behavioral Health Needs Assessment Survey (UBHNAS) is a tool developed to assess the composite behavioral health status and needs of a military unit. The UBHNAS is based on much larger Land Combat Study questionnaires used to assess the ongoing effects of operational tempo (OPTEMPO), combat exposure, and mental health variables on soldiers.

A panel of experts reviewed the larger questionnaires and retained those questions they felt were most applicable in helping units with behavioral health issues throughout phases of the deployment cycle. Items and scales that were retained include the following:

Demographics (age, gender and rank) are used to ensure that the survey is representative of the overall unit. Survey results can be compared with the unit's actual demographic data obtained from the unit's personnel management staff office.

Current/Recent deployment history, deployment concerns with living and working conditions, and key deployment/combat experiences (such as having known someone injured or killed) help leaders and mental health providers place unit outcomes in context of their overall experiences and prioritize their interventions.

Post-Traumatic Stress Disorder Symptoms come from a 17-item instrument designed by the Department of Veterans Affairs' National Center for Posttraumatic Stress Disorder (PTSD) and known as the "PTSD Checklist" or "PCL" (Weathers, Litz, Herman, Huska, & Kieane, 1993). Each of the items on the PCL is scored from 1 to 5, so the range for the sum of the 17-item scale is from 17-85, with 50 being a well established, conservative cutoff (Blanchard et al., 1996; Hoge, et al., 2004; Weathers, et al., 1993). While depression and adjustment disorders tend to be the focus behavioral health practice while in garrison, combat stress reactions and PTSD symptoms tend to be more common among deployed combat units. Individual items may also be used to assess the frequency of particular symptoms such as sleeping problems, irritability, and poor concentration.

Personal morale, unit morale, and unit cohesion are measures believed to be related to overall unit performance and wellbeing. The unit cohesion scale, which originated with Podsakoff & MacKenzie (1994), has been found to be related to leadership climate, morale, and ultimately to mission accomplishment (e.g., Manning & Ingraham, 1987).

A number of items also explore Soldier confidence in their unit's ability to perform its mission and in the leadership of their officers and non-commissioned officers (NCOs). There are also some questions pertaining to their perception of the training in their unit around behavioral health topics, such as suicide prevention and coping with the stresses of combat/deployment.

A 10-item scale screens for depressive symptoms and assesses functional impairment due to depression (Spitzer, et al., 1999; Kroenke, et al., 2001; Kroenke & Spitzer, 2002). This scale (the Patient Health Questionnaire or PHQ) is based on the DSM-IV and has been used extensively in primary care settings to screen for clinical depression. Although the PHQ is not meant to be used alone for clinical diagnosis (ie, only with clinical interview), we use a conservative scoring method that requires the respondent to score in the "moderate depression" level of symptoms and also report their functional impairment as "very" or "extremely

7 - 2 RTO-MP-HFM-134



difficult" – a higher level than the usual "somewhat difficult" required by the clinical instrument. Although the PHQ-9 is a clinical instrument, its use within the UBHNAS is not intended to identify individual Soldiers with depression, but to better understand the rate of depression at the unit level.

One question in the PHQ ("Thoughts that you would be better off dead or of hurting yourself in some way") assesses the prevalence of ideations of suicide or self-harm. Although usually quite low, it is an important mental health indicator and can point to the need for more suicide prevention efforts within a unit.

Alcohol and/or drug misuse and aggressive behaviors are also assessed. While in garrison, the use of alcohol is legal, but overuse may be a symptom and/or cause of other behavioral health issues. The alcohol screening questions are a modified version of the Two-Item Conjoint Screen (TICS) (Brown, Leonard, Saunders, & Papasouliotis, 2001). One (or two) positive responses to the TICS detected current alcohol use disorders with nearly 80% sensitivity and specificity – similar to the longer screening instruments (Brown et al., 2001). Aggression may also be a symptom and/or cause of other behavioral health problems. Although aggression is an important trait for combat Soldiers, Soldiers must appropriately target and express aggression, and leaders must properly manage aggression or serious problems could develop. If the aggression is expressed among unit members (i.e., in-fighting), unit cohesion breaks down; if the aggression is expressed externally, the mission may be jeopardized directly through the commission of war crimes (My Lai Massacre or prisoner abuses at Abu Ghraib for example) or indirectly as individual Soldiers face military and civilian legal consequences for misconduct.

In addition to symptomatology assessment, the UBHNAS asks about the need for, interest in, and the use of existing behavioral health resources. Based on the responses from these items, unit leaders and behavioral health providers can better understand current patterns of behavioral health care utilization and how to best improve the system. For example, a number of different sources of help are listed from whom Soldiers may have received behavioral healthcare – from "a Soldier in [my] unit" to "mental health professional at a civilian facility." Each of these service sources provides a Soldier a point of access to the system and is not in competition with the others; indeed, each discipline and agency fills a service niche and/or serves a population that would not otherwise receive services. For example, some Soldiers with strong religious beliefs may be best served (at least initially) by a chaplain (who may later refer the Soldier to a psychiatrist or primary care provider for medication), while those who have no religious beliefs may choose to seek care first through the unit medic (who may later refer the Soldier to a chaplain for relational counseling). Thus, all of the disciplines are vital to providing open access and encouragement to Soldiers in need.

Questions about perceived stigma and barriers to behavioral healthcare are designed to determine if there are particular factors that make it hard for Soldiers within the unit to seek/obtain behavioral healthcare. These factors are grouped into organizational barriers and fear of being stigmatized. The stigma questions were drawn from Britt's (2000) work with U.S. Soldiers re-deploying from Bosnia; the organizational barriers were designed by the WRAIR for research at Fort Bragg. A much higher percentage of Soldiers who screen positive for a mental health problem (depression, PTSD, etc.) report perceived stigma and organizational barriers than do those who screen negative (Hoge, et al., 2004). In other words, the Soldiers who most need help are much more likely to report organizational barriers and fear of being stigmatized. Therefore, it is imperative that leaders and helping professionals at all levels work to remove organizational barriers and to ease Soldiers' fear of being stigmatized.

Those Soldiers with spouses and/or children are also asked a few questions related to how their children and spouses are doing. In particular, Soldiers are asked about their marital satisfaction, whether they are planning to separate/divorce, and about spouse abuse within the past year.



Spouse Abuse scale assesses the percentage of Soldiers who have recently engaged in abusive behavior against their spouse. These items come from the modified Conflict Tactics Scale used in a number of large Department of Defense studies in the early 1990s (Pan, Neidig, & O'Leary, 1994; Pan & Neidig, 1994; Heyman & Neidig, 1999). Since space was limited on the UBHNAS, items were restricted to moderate and severe spouse abuse perpetrated by the Soldier. The UBHNAS allows the respondent to tick mark no prior abuse, abuse in the past year, and/or abuse over 12 months ago. In order to keep the hand-scoring simple, positive answers only look at abuse if it occurred in the past year (i.e., marked "Yes, In the Past Year"). Nevertheless, four groups could be formed for more specific information (given a large enough sample size) – no violence; only in last year, not recently (that is, "Yes, Not in Past Year"), and both recent and past violence (chronic). Although "Yes, In the Past Year" should represent more recent abuse, if the unit has been deployed for year, then the responses to this variable may be artificially low. If spouse abuse (moderate and/or severe) appears high, possible action plans may include programs from Family Advocacy (briefings/interventions), chaplains (marital communication/enrichment), behavioral health (individual/group therapy), or marketing other confidential counseling services.

Marital satisfaction questions are based on a modified version of Norton's (1983) Quality of Marriage Index. Norton's initial 6 items were reduced to four (all were highly correlated), and the word "partner" was replaced by "spouse." The four items could be averaged and reported as a scale, but we usually report each question is an individual item.

Several questions that reflect the Soldier's perception of unit support provided to his/her family. Each question is an individual item. Rear detachments and family readiness groups can be a critical support link particularly during field training exercises and deployments.

Survey Coverage (one question) is designed to assess whether all key issues were covered in the survey from the Soldiers' point of view. If responses to this question are abnormally low, the unit may have to use qualitative data gathering techniques (such as interviews, focus groups, etc.) to learn of issues that the survey doesn't cover.

Finally, participants are asked to list three things (good or bad) which they perceive are contributing the most to their current well-being. These items can be analyzed by grouping and counting common themes. Common themes often include comments about leadership, living conditions, work environment, morale, etc. While it is unlikely that the responses will provide shockingly new information to the unit leadership, this section can provide leaders some needed anonymous feedback – particularly reoccurring, common themes.

Annex E of the manual contains comparison data tables with which to compare the unit's results. The comparison data tables have been compiled from data gathered by the WRAIR from numerous combat and combat support units from 2003-2005. These data are not meant to be used to judge units (or personnel) as "normal" or "abnormal" as one might use a clinical test (MMPI, etc.) since the units upon which the comparison data were gathered are not necessarily "normal." Nevertheless, the comparison data will provide some context in which to ground unit findings. When presenting unit findings to the unit leadership, it is critical that the briefer explain to the unit leadership that the comparison data is just for context and not to be construed as "normal" or "abnormal."

# 3.0 Unit Needs Assessment Important Considerations

There are several important considerations when using the UBHNAS:

7 - 4 RTO-MP-HFM-134



- 1. The survey is anonymous. When administering the survey, the anonymity of every Soldier is maintained by not asking for any identifying information, by not asking Soldiers to turn in the surveys to other members of their unit who may read their individual responses, and by not looking at the surveys until all of the surveys have been collected. This allows Soldiers to answer the questions candidly without fear of stigma or reprisal. On the other hand, the UBHNAS is not a clinical assessment or screening instrument meant to identify individual Soldiers who need help. It also does not allow behavioral health to reach out to those who identify themselves as needing help. These issues should be clearly discussed with participants during the survey briefing prior to them taking the survey.
- 2. Although the UBHNAS may be a command directed initiative, completing the survey should always be voluntary. Units may require Soldiers to attend the survey administration sessions; however Soldiers may choose not to complete the survey or to hand in it blank. This is to ensure Soldiers are not coerced and to reduce the chance that Soldiers will complete the survey with inaccurate or bogus data in order to conceal their forced personal disclosures. This should also be clearly discussed with participants during the survey briefing.
- 3. The data obtained from the UBHNAS belong to the Commander. Data gathered from the UBHNAS are intended for operational purposes. Because there is no Institutional Review Board (IRB) oversight or written informed consent process, the data should not be used for research or publication purposes. Indeed, the data and findings are not be published or presented in any forum except to the unit commander without his/her express consent.
- 4. Only consolidated data should be presented to commanders. In order to protect the confidentiality of subordinate commanders, data from subordinate units should be "rolled up" and presented as composite scores at each level of command. Cooperation of mid-level commanders would be difficult to obtain if the unit needs assessment is seen as an evaluation of leaders or units; indeed, since the unit is the focus of preventive "treatment," units (like individual patients) deserve professional confidentiality unless expressly waived by the respective commander(s).
- 5. The UBHNAS does not have to be administered to all Soldiers in the unit, as long as there is a reasonable sample taken that can be considered representative of the unit as a whole. As a rule of thumb, 50 Soldiers per company or 100 Soldiers per battalion should be sufficient, as long as some Soldiers from each subordinate unit are included in the sample. In other words, when surveying a battalion, be sure to include some Soldiers from each company, and when surveying a brigade, be sure to include Soldiers from each battalion. If possible, it is also good practice to try to sample each subordinate unit in proportion to their respective size.
- 6. The circumstances and/or the commander's concerns should drive which sections to tally, analyze and report. For example, if the unit is not deployed, the "Deployment Concerns" items may not be relevant. If there are other concerns not covered by the UBHNAS, additional questions may be drafted to explore these other concerns. These additional questions can be added by attaching an additional sheet of paper to the UBHNAS or by verbally stating the question and having the Soldiers jot down their answers in the comments area of the UBHNAS.
- 7. As noted above, comparison statistics are given in Annex E for data collected from units (Soldiers) prior to deployment, during deployment, and three months post-redeployment. These comparisons are ball-park figures and should not be used to "evaluate" a unit. The comparison statistics merely provide a context for interpreting a unit's findings and should be used with care since a unit may be different from the "comparison" units/Soldiers. Possible differences must be taken into consideration when interpreting and/or



report findings to the leadership. The best comparison data are periodic longitudinal "snap shots" of the same unit. Ideally, units should be surveyed predeployment, once or twice during deployment, and at three months post deployment. Additional surveys may also prove helpful, particularly a few months before or after nodal events like command changes.

- 8. Two considerations about when to perform a UBHNAS:
- a. Gathering data on Soldier well-being during redeployment often underestimates the actual number of Soldiers with potential mental health problems; this is particularly true for Acute and Posttraumatic Stress disorders (Bliese, Wright, Adler & Thomas, 2004). Although the reasoning has not been fully explored, there appears to be a honeymoon effect where Soldiers both attribute adverse symptoms to transient conditions and/or assume optimistically that the problems will quickly go away now that they have returned to "the real world." Therefore, we recommend waiting three months before conducting any post-deployment surveying.
- b. Command interest, in addition to time, resource, and feasibility constraints, should impact how often a UBHNAS is conducted. For example, if one did a UBHNAS each month, and the results bounced up and down (as they are likely to do because of sampling differences), leaders may become tired of hearing the same discussion, wonder why the numbers keep going up and down, and finally come to question the validity of the UBHNAS process and/or the efficacy of the behavioral health intervention(s). It is better to conduct a handful of well-timed UBHNAS' than to conduct them too frequently.

#### 4.0 REFERENCES

- [1] Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behavior Research and Therapy*, *34*, 669-73.
- [2] Bliese, P.D., Wright, K.M., Adler, A.B., & Thomas, J.L. (2004). *Screening for Traumatic Stress among Re-deploying Soldiers*. United States Army Medical Research Unit-Europe Technical Research Report #2004-001.
- [3] Britt, T. W. (2000). The stigma of psychological problems in a work environment: Evidence from the screening of service members returning from Bosnia. *Journal of Applied Social Psychology*, 30, 1599-1618.
- [4] Brown, R. L., Leonard, T., Saunders, L. A., & Papasouliotis, O. (2001). A two-item conjoint screen for alcohol and other drug problems. *Journal of the American Board of Family Practice*, *14*(2), 95-106.
- [5] Heyman, R. E., & Neidig, P. H. (1999). A comparison of spousal aggression prevalence rates in the U.S. Army and civilian representative samples. *Journal of Consulting and Clinical Psychology*, 67(2), 239-42.
- [6] Hoge, C.W., Castro, C.A., Messer, S.C., McGurk, D., Cotting, D.I., & Koffman, R.L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine*, 351, 13-22.
- [7] Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*, 606-13.

7 - 6 RTO-MP-HFM-134



- [8] Kroenke, K., & Spitzer, R. L. (2002). The PHQ-9: A new depression and diagnostic severity measure. *Psychiatric Annals*, *32*, 509-21.
- [9] Manning, F.J. & Ingraham, L.H. (1987). An investigation into the value of unit cohesion in peacetime. In G.L. Belenky's (Ed.), *Contemporary studies in combat psychiatry*, (pp. 47-67). Westport, CT: Greenwood
- [10] Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family*, 42, 63-69.
- [11] Operation Iraqi Freedom Mental Health Advisory Team (2003). OIF-I Report. Available at <a href="http://www.armymedicine.army.mil/news/mhat-ii/mhat.cfm">http://www.armymedicine.army.mil/news/mhat-ii/mhat.cfm</a>.
- [12] Operation Iraqi Freedom Mental Health Advisory Team (2004). OIF-II Report. Available at <a href="http://www.armymedicine.army.mil/news/mhat/mhat.cfm">http://www.armymedicine.army.mil/news/mhat/mhat.cfm</a>.
- [13] Pan, H., & Neidig, P. H. (1994). Male-female and aggressor-victim differences in the factor structure of the modified Conflict Tactics Scale. *Journal of Interpersonal Violence*, *9*, 366.
- [14] Pan, H., Neidig, P. H., & O'Leary. K. D. (1994). Predicting mild and severe husband-to-wife physical aggression. *Journal of Consulting and Clinical Psychology*, 62(5), 975-81.
- [15] Podsakoff, P.M., & MacKenzie, S.B. (1994). An examination of the psychometric properties and nomological validity of some revised and reduced substitutes for leadership scales. *Journal of Applied Psychology*, 79, 702-713.
- [16] Spitzer, R., Kroenke, K., & Williams, J. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ Primary Care Study. *Journal of the American Medical Association*, 282, 1737-44.
- [17] Weathers, F.W., Litz, B.T., Herman, D.S., Huska, J.A., Kieane, T.M.. (1993, October). The PTSD checklist (PCL): reliability, validity, and diagnostic utility. Paper presented at the 1993 International Society of Traumatic Stress Studies. Abstract retrieved June 4, 2004 from <a href="http://www.pdhealth.mil/library/downloads/PCL\_sychometrics.doc">http://www.pdhealth.mil/library/downloads/PCL\_sychometrics.doc</a>.





7 - 8 RTO-MP-HFM-134