Joint Mental Health Advisory Team 7 (J-MHAT 7)
Operation Enduring Freedom 2010
Afghanistan

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Office of The Surgeon General
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and

Office of the Command Surgeon
HQ, USCENTCOM

and

Office of the Command Surgeon
US Forces Afghanistan (USFOR-A)

The results and opinions presented in this report are those of the Joint Mental Health Advisory Team 7 members and do not necessarily represent official policy or position of the Department of Defense.

1. EXECUTIVE SUMMARY

1.1 Introduction

The Joint Mental Health Advisory Team 7 to Operation Enduring Freedom (J-MHAT 7 OEF) was established at the request of senior operational leaders and supported by the leadership of US Forces Afghanistan (USFOR-A). As in previous years, the Office of The Surgeon General of the Army took the lead in mission execution; however, the mission was supported by the Offices of the Surgeons' General of the Navy and Air Force along with the Office of the Medical Officer of the Marine Corps. In addition, key support was provided by the Office of the Command Surgeon, USCENTCOM and the Office of the Command Surgeon, USFOR-A. J-MHAT 7 is the first MHAT to have Joint representation.

The purpose of J-MHAT 7 was to:

1. Assess behavioral health in land combat forces by surveying Service Members in Army and Marine maneuver units
2. Examine the delivery of behavioral healthcare in Operation Enduring Freedom (OEF)
3. Provide recommendations for sustainment and improvement to command.

During July and August 2010, Soldiers and Marines in randomly selected maneuver units completed the anonymous J-MHAT 7 survey. In total, 911 surveys were collected from 40 Army maneuver unit platoons, and 335 were collected from 13 Marine platoons. Eighty-five surveys were collected from behavioral health personnel in the Afghanistan Theater of Operations (ATO). From 27 July to 14 September, 2010 the J-MHAT 7 team (a) processed and analyzed survey data, (b) examined secondary data sources, (c) conducted focus group interviews with Soldiers, Marines and behavioral health personnel, and (d) wrote the technical briefing and draft report.

The report contains four key sections:

1. Status of Soldiers compared to three previous OEF samples
2. Status of Marines compared to two previous Iraq (OIF) samples
3. OEF behavioral healthcare, staffing ratios, status of providers and suicide numbers
4. Integrative recommendations.

J-MHAT 7 collected Service Member survey data using a cluster sample of randomly selected maneuver unit platoons. This sampling strategy was first used in the MHAT missions conducted in 2009 (MHAT VI to OIF and OEF). The strategy has several advantages. First, it randomly selects respondents to minimize the possibility of drawing a biased sample. Second, it is feasible to execute within a combat environment, and third the sampling strategy is replicable across years helping minimize any potential that differences across years would be due to sampling (rather than substantive) reasons.

1.2 Key Findings: Army

1.2.1 *Well-Being Indices*

1. Morale: Significant decline in reports of individual morale relative to 2009 and 2005. Unit morale unchanged.

2. Psychological Problems: Acute stress rates significantly higher than rates from 2009 and 2005. Rates of combined psychological problem measure (acute stress, depression, or anxiety) significantly higher than 2005.

3. Suicide Ideation: Rates of suicide ideation are unchanged.

4. Concussive Events: Soldiers report high exposure to concussive events. Low percentages report being evaluated by "Medical Professionals" for concussions; however, the evaluation rate may be higher than estimated because Soldiers may not consider medics "Medical Professionals." Note that survey was also conducted before full implementation of Directive-Type Memorandum (DTM) 09-033 "Policy Guidance for Management of Concussive/Mild Traumatic Brain Injury in the Deployed Setting."

5. Medication Use. Medication use for mental health or combat stress was 3.7%. This rate is slightly lower than the antidepressant use rate of 4.6% among a demographically comparable civilian sample.

1.2.2 *Risk Factors*

1. Combat Exposures: Dramatic increase in combat exposure relative to 2009. Higher combat levels reported than in any previous MHAT to either OEF or OIF.

2. Multiple Deployments: More multiple deployers than in 2009. Soldiers on their third/fourth deployment report significantly more psychological problems and use of mental health medications than Soldiers on their first or second deployment.

1.2.3 *Resilience Factors*

1. Resilience: Overall evidence of resilience exemplified by low levels of psychological problems under conditions of high combat when compared to expected rates from historic MHAT data.

2. Unit Climate Variables: Significantly higher levels of Unit Cohesion and Perceived Unit Readiness reported than in any other OEF MHAT.

3. Small-Unit Leadership: Significantly higher Non-Commissioned Officer (NCO) leadership relative to 2009 and 2005; no significant change in commissioned Officer leadership ratings.

4. Behavioral Health Stigma: Largely unchanged relative to 2009.

5. Barriers to Care for Behavioral Health: Relative to 2009, Soldiers report a significant reduction in barriers associated with accessing behavioral health despite a significant increase in the number of days per month Soldiers report being outside of the FOB.

6. Training Adequacy: Training adequacy for suicide and stress significantly higher than in 2009.

1.2.4 *Key Army-Specific Recommendations*

1. Validate Resilience Training: Continue to support randomized trials and quasi-experimental studies to identify evidenced-based factors leading to resilience with priorities for leadership training and pre-deployment resilience training (In Theater and CONUS).

2. Barriers to Care. Continue a staffing ratio of between 1:700 and 1:800 to support delivery of care for highly dispersed Army units. Continue to monitor and adjust staffing ratio as related to need (In Theater monitoring with CONUS support).

3. Dual Provider Model. Continue to support the Dual-Provider model of allocating behavioral health assets throughout ATO until MTOE change in 2009 takes effect and BCTs begin deploying with two providers and two behavioral health technicians (In Theater).

1.3 Key Findings: Marines

1.3.1 *Well-Being Indices*

1. Individual Morale: The percent of Marines reporting high or very high morale is not significantly different from either 2006 or 2007; the percent of Marines reporting high or very high unit morale is significantly lower in 2010 than in 2006 or 2007.

2. Psychological Problems: The rate of Marines reporting psychological problems (acute stress symptoms, depression or anxiety) is significantly higher in 2010 than in 2006 or 2007.

3. Suicide Ideation: Rates of suicide ideation are unchanged.

4. Concussive Events: Marines report high exposure to concussive events. Low percentages report being evaluated by "Medical Professionals" for concussions; however, the evaluation rate may be higher than estimated because Marines may not consider corpsmen "Medical Professionals." Note that survey was also conducted before full implementation of Directive-Type Memorandum (DTM) 09-033 "Policy Guidance for Management of Concussive/Mild Traumatic Brain Injury in the Deployed Setting."

1.3.2 *Risk Factors*

1. Combat Exposures: Marines report dramatic increase in combat exposure relative to 2006 and 2007 in OIF.

2. Sleep Problems: Significant increase in the percentage of Marines who report high or very high concern about not getting enough sleep. Sleep disruption primarily due to poor sleep environment (e.g., too hot, noisy, etc.).

3. Marital Relationships: Significant decline in the percent of Marines reporting intent to divorce or separate or who are concerned about infidelity.

4. Multiple Deployments: Marines on three or more deployments report lower morale than those on first deployment. Multiple deploying Marines also show increased psychological problems.

1.3.3 *Resilience Factors*

1. Unit Climate Variables: Marines report significantly higher levels of Unit Cohesion and Perceived Unit Readiness than in 2006 or 2007.

2. Small-Unit Leadership: Significantly higher NCO leadership ratings in 2010 relative to 2007; significant decline in Officer leadership ratings relative to 2006.

3. Behavioral Health Stigma: Significant reduction in stigma associated with receiving behavioral healthcare among those with psychological symptoms relative to 2006.

4. Barriers to Care for Behavioral Health: Barriers to care declined significantly in 2010 relative to 2006 and 2007.

5. Training and Training Adequacy: Training and adequacy of training for suicide prevention and stress management increased on several items relative to 2007.

6. Positive Impact of Deployment: Marines report a significant increase in pride in their accomplishments and confidence in their abilities relative to 2007.

1.3.4 *Key Marine-Specific Recommendations and Considerations*

1. Continue participation in future J-MHATs to provide a more robust referent base for evaluating changes in Marines' behavioral health status, risk factors, and resiliency over time (CONUS and In-Theater).

2. Implement the DRAFT Marine Corps Reference Publication 6-11C, Combat and Operational Stress Control (MCRP 6-11C/NTTP 1-15M DRAFT) (CONUS).

1.4 Key Findings from Behavioral Health Personnel

1. Outreach: Behavioral health (BH) personnel report an increase in providing services to Service Members outside the Combat Stress Control (CSC) unit location.

2. Pre-Deployment Training: BH personnel report pre-deployment training is inadequate preparation for COSR/BH mission. Perception of training adequacy varies by Service with Army reporting 78%; Air Force 60% and Navy 56%.

3. Tele-Mental Health: Substantial barriers were reported by both Service Members and BH providers surrounding the acceptance and implementation of tele-mental health technology.

1.4.1 *Key Joint Recommendations and Considerations*

1. Coordination of Resources: Ensure the theater Behavioral Health Consultant regularly advises medical and operational command about optimal mental health resource allocation in line with Service specific delivery models; consider making position a Joint billet (In Theater).

2. Prioritize Behavioral Health Travel: Consider ways to prioritize travel for Behavioral Health personnel such as priority Space-A and routine access to bandage flights (in Theater).

3. Concussion Documentation: Emphasize the importance of having Medics and Corpsmen document post-concussive evaluations in Electronic Medical Records (EMR) regardless of outcome, and work to ensure compliance with directive to document evaluations (DTM 09-033) (In Theater).

4. Concussive Care: Encourage program evaluation of clinical practice tools (e.g, ANAM, ImPACT) in treatment of Service Members with mild traumatic brain injury (mTBI) /concussions (In Theater).

5. Criteria of Concussive Care: Continue to refine the DTM 09-033 evaluation criteria regarding distance from blast [within 50 meters of a blast (inside or outside)] as this standard may be overly conservative (CONUS).

6. Sleep Management: Incorporate sleep hygiene and discipline into pre-deployment training. Emphasize that small unit leaders are responsible for implementing sleep discipline and mitigating factors that lead to poor sleep environments commensurate with unit location and circumstances (Reference COSC FM 6-22.5) (In Theater and CONUS).

7. Tele-Mental Health: Conduct further evaluation of the use of Tele-Mental Health as an adjunct to MH service provision in the ATO by systematically addressing Service Members' access to and acceptance of Tele-Mental Health (In Theater and CONUS).

2. BACKGROUND

2.1 Mission and Background

The J-MHAT 7 OEF mission is to assess behavioral health and well-being among land combat forces; examine the in-theater delivery of behavioral healthcare, and provide recommendations for sustainment and improvement to command.

J-MHAT 7 deployed to Afghanistan in support of Operation Enduring Freedom (OEF) from July to September, 2010. This report presents J-MHAT 7 findings from anonymous surveys; focus groups with junior enlisted Service Members and NCOs from land combat maneuver platoons, and interviews with behavioral health personnel. The J-MHAT 7 team members were assigned to US Forces Afghanistan (USFOR-A) and worked directly under the supervision and control of (b)(3) 10 USC 130 (b) Medical Command.

2.2 Sampling Strategy

J-MHAT 7 recommendations are based upon multiple sources of information (survey data, records, and focus group interviews). Much of the report, however, centers on data from anonymous surveys collected from land combat Service Members assigned to maneuver unit platoons. The maneuver unit sample was collected by randomly selecting three platoons from three randomly selected line companies from every maneuver battalion in theater.

There are five advantages with the cluster based sample. First, Service Members in these units are war-fighters engaged in direct combat-related tasks. At a conceptual level, therefore, all platoons can be considered interchangeable providing a convenient way to generate a random sample of war-fighters. Second, maneuver unit platoons are a core component of deployed combat forces; consequently, the sampling strategy is replicable across years and contexts. Third, the sampling plan can feasibly be implemented in an operational environment using a fragmentary order (FRAGO) to identify the units, and using organic medical personnel in the brigade to conduct surveying.

The fourth advantage is that sampling platoons in maneuver battalions provides a relatively close link to previous MHAT data. Comparisons between the J-MHAT 7 OEF sample and Army and Marine data from previous years are confounded by different sampling strategies; nonetheless, the focus on BCTs and Regimental Combat Teams (RCTs) across MHATs provides a reasonable basis for comparison. The 2007 Army OEF sample had a particularly large group of non-BCT units, so for this year we focus on the 252 male BCT respondents. The relatively low number of respondents in the 2007 produces variability in the estimated responses for that year; therefore, the values from this year are marked with an "*" and a footnote refers to the small sample size.

The Army contrast between J-MHAT 7 in 2010 and MHAT VI in 2009 provide compelling comparisons because the same type of units (maneuver unit platoons) were randomly sampled across years; consequently, we can be more confident that observed differences reflect fundamental changes in either the nature of the force (e.g., differences in the percentage of multiple deployers across years); changes in how the maneuver units are used (e.g., different troop dispersion across years), or changes in kinetic activity (e.g., differences combat levels across years). Another way to think about the sampling is to note that the use of identical sampling across years helps ensure that observed differences are not due to (a) changes in

demographic characteristics such as rank and age or due to (b) selecting units with inherently different functions.

Even with the same random sampling plan across years, it is still important to statistically control for time in theater. This is because the sampling plan was not developed in a way to ensure uniformity in this variable, and time in theater has repeatedly been shown to be related to a number of outcomes in previous MHAT reports. In addition, because comparisons are being drawn across samples that did not use the platoon-based cluster samples, we also control for rank in the statistical analyses and provide sample adjusted values as though the entire sample were composed of male, E1-E4 Soldiers in theater for 9 months, and in the case of Marines, male, E1-E4 Marines in theater for 4.5 months.

A final advantage with the use of cluster sampling is that it provides some degree of anonymity to Service Members. As noted in the MHAT VI OEF report, the anonymity is less than that offered in MHAT I to V; however, it is substantially higher than a random sampling approach that identifies specific Soldiers based on individual demographic characteristics.

Despite these advantages, there are also limitations with this approach. First, the population of maneuver unit Service Members represents less than half the deployed population (see McGrath, 2007). Therefore, a maneuver unit sample is not representative of the entire deployed force in the ATO. Second, by using a cluster sample of platoons, little data is collected from officers, senior NCOs or females. Third, because the sampling provides detailed information about platoon membership, care had to be taken to avoid potentially incriminating items. Specifically, to address concerns raised by the Defense Manpower Database Center (DMDC) and human use review boards, specific items related to drug use, alcohol use and potential war crime violations were omitted for both MHAT VI and J-MHAT 7.

2.3 Comparison Groups

A key advantage of repeatedly conducting Mental Health Advisory Teams is that multiple iterations contribute to extensive historical databases. Data from these databases provide a referent basis for interpreting findings. Comparisons drawn across time are generally more valuable than comparisons drawn across services. For instance, finding that Army morale has significantly increased related to 2009 is more meaningful than finding that Army morale is significantly different than Marine morale. Differences among Services may reflect Service-related cultural differences. In contrast, differences across time within the same Service are more likely to reflect substantive changes in the nature of the combat environment or in service-specific policy initiatives. Consequently, in the current report we contrast Army data collected in 2010 to Army data from previous OEF assessments, and Marine data from 2010 is contrasted to Marine data from OIF. The details of these comparisons are provided below.

2.3.1 *Army Sample Changes Across Time*

Army J-MHAT 7 data is compared to Army OEF MHAT data collected in 2005, 2007 and 2009. The basic statistical model includes time as a categorical predictor using the 2010 J-MHAT 7 OEF Army sample as the referent. As noted, graphs present sample-adjusted values based on male respondents and adjusted for demographic sample differences in rank and months deployed. Specifically, the sample-adjusted values represent (1) male, (2) junior enlisted Soldiers deployed for (3) 9 months. Nine months is selected as the referent for months deployed as this time point represents the three quarter mark in a one year deployment. NCOs are used as the referent when examining multiple deployment effects. Note that because sample-adjusted values are based on data combined across all OEF MHATs, the values listed

in this report may not exactly match values from previous MHAT reports. Values are adjusted based on the attributes of the combined MHAT 2005, 2007, 2009 and 2010 samples, and adding 2010 data to the total sample produces slight changes in the sample-adjusted values. In addition, data that is returned after the cut-off date for the report is added to the master database. In the case of the 2009 OEF data, for instance, an additional 65 surveys were added to the database after the cut-off date and these additional surveys may produce slight changes in the 2009 numbers reported in MHAT VI.

2.3.2 *Marine Sample Changes Across Time*

Marine J-MHAT 7 data was compared to data collected from USMC Regimental Combat Teams (RCTs) in Iraq (OIF) in 2006 (N=453) and 2007 (N=446). As background, in 2006, Marines in Iraq were surveyed at the request of the Commander, Multinational Forces Iraq (MNF-I). Results were integrated into the MHAT IV report. Following release of MHAT IV, the MHAT team learned of the requirement to obtain DoD level approval for Joint Surveys. In 2007, Marine data was also collected at the request of the MNF-I Commander, but not integrated into the MHAT V report as DoD-level approval had not been obtained. These data from 2007 were provided to the Marines, but not integrated into the MHAT V report. DoD-level approval was obtained for the J-MHAT 7 survey.

Both OIF MHAT IV (2006) and OIF MHAT V (2007) directed Marine units to provide 250 surveys from select RCTs of which no more than 50 could be from support elements. This strategy, while non-random, resulted in data heavily weighted by war-fighters. Therefore, comparisons between the J-MHAT 7 OEF sample and the OIF Marine data are confounded by different sampling strategies leading to some issues on how to interpret J-MHAT 7 relative to these years; nonetheless, the focus on Marine RCTs across previous MHATs provides a reasonable basis for comparison particularly when sample-adjusted for difference in rank and time in theater.

In interpreting results from Marines surveyed in 2006, 2007, and 2010, it is important to keep in mind that 2006 was a time of heightened combat in Iraq. The beginning of 2007 was also an intense time of conflict; however, during the survey period in 2007 combat levels in (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) had substantially declined. The basic statistical model used with the Marine data and the presentation of graphs mirror the models used with the Army data with the exception that sample-adjusted values represent male, junior enlisted Marines deployed for 4.5 months rather than 9 months. In the case of Marines, 4.5 months represents the three quarter mark in a typical deployment of six months duration.

2.4 Analytical Strategy and Verification of Results

Adjusted values were estimated from either a logistic regression model or a linear regression model. All analyses were run in the statistical language R (R Core Development Team, 2009), and replicated by a second member of the research team using the Statistical Package for the Social Sciences program (SPSS).

2.5 Focus Groups

The J-MHAT 7 team conducted 16 focus groups with a total of 69 Service Members at (b)(3):10 USC 130 (b) (b)(3):10 USC 130(b) In addition, 2 focus groups for a total of 7 Marines (5 junior enlisted and 2 NCO) at (b)(3):10 USC 130(b) High kinetic activity and the fact that several of the surveyed units were near the end of the deployment limited opportunities for focus groups (particularly for Marines). Finally, 19 focus groups representing

60 behavioral health personnel were conducted with providers in (b)(3) 10 USC 130(b) including behavioral health personnel from all three Services. Themes from the focus groups are integrated into the relevant sections of the report to augment the survey-based data.

Focus group questions targeted the degree to which specific leadership roles and functions had been performed by formal or informal leaders in the transition (pre-deployment) and action (deployment) phase. Leadership functions were targeted in part because small-unit leadership had been identified as a resiliency factor in results from MHAT VI (OIF). The focus-group questions were generated using the framework of effective team leadership described in Morgeson et al. (2010).

3. CONCEPTUAL OVERVIEW

The J-MHAT 7 OEF Soldier and Marine survey contains the core survey measures used in all previous MHATs. MHAT surveys are adapted from the Land Combat Study conducted at the Walter Reed Army Institute of Research (WRAIR: Hoge, et al., 2004; Hoge, et al., 2007; Riviere, 2008).

Over the years, each survey has also included items of emergent interest to operational and medical leadership. The current J-MHAT survey included the following substantive changes discussed in the report:

1. Ratings of Service Member exposure to potentially concussive events, and reports of whether the Service Member had been evaluated by a Medical Professional
2. A series of questions assessing family responsibilities and work performance
3. Items examining reasons for sleep disruption
4. Items assessing chronic pain and the use of pain medications

3.1 Service Member Combat & Well-Being Model

The key topic areas within the J-MHAT 7 survey cover: (1) Risk Factors, such as combat experiences; (2) Resilience Factors, such as willingness to seek care; and (3) Well-Being Indices, such as individual morale. The framework is based on a conceptual model adapted from Bliese and Castro (2003) and presented in MHAT V and MHAT VI documents.

3.1.1 *Well-Being Indices*

These measures are based on a standard set of behavioral health status indicators to include:

1. Individual and Unit Morale
2. Acute Stress (PTSD), Depression and Anxiety
3. Suicidal Ideation
4. Use of medications

3.1.2 *Risk Factors*

In the conceptual model, behavioral health rates are driven by risk factors. In this report, risk factors are broken down into four major classes. The first class of factors is composed of combat-related events. Research has demonstrated that high levels of combat experiences (e.g., being attacked or ambushed, clearing homes and buildings, etc.) are associated with higher levels of psychological problems, such as acute stress (Dohrenwend, et al., 2006). The second class of factors is relationship problems. The third is OPTEMPO-related experiences such as deployment length and multiple deployments. The final category is comprised of deployment concerns related to living conditions, work concerns and family concerns.

3.1.3 *Resilience Factors*

Based on the conceptual framework, behavioral health and performance can be improved either by: (a) reducing or eliminating factors that put Service Members at risk; or (b) strengthening protective factors, thereby providing Service Members with better coping skills when exposed to factors that place them at risk.

In a combat environment, many risk factors are unavoidable (e.g., exposure to potentially traumatic combat events) or are the direct product of National Military Strategy decisions (e.g., the size of the military requires deploying Service Members multiple times). For these reasons, many behavioral health interventions focus on developing and enhancing programs designed to help Soldiers cope with known risk factors in an attempt to improve resilience. The current J-MHAT report examines:

1. Stigma and willingness to seek care
2. Perceived barriers to care
3. Perceived adequacy of behavioral health training

4. SOLDIER REPORT: SAMPLE CHARACTERISTICS

Table 4.1 provides details on selected demographic variables for the MHAT VI (2009) maneuver sample compared to the J-MHAT 7 Soldier sample (2010). Although the two samples show no differences on key demographic variables such as age and rank, they differ on several other variables. Specifically, the J-MHAT 7 sample (a) has more National Guard; (b) has more single Soldiers, (c) has more multiple deployers, (d) has spent more time in theater, and (e) spends more time outside of the unit's main Forward Operating Base (FOB).

Table 4.1 shows that the two samples do not differ in terms of dwell time when categorized into less than 12 months, 12 to 24 months and more than 24 months. This similarity is mirrored in the summary statistics (not shown) in that the median dwell-time in J-MHAT 7 was 24 months while in 2009 it was 23 months.

Differences related to multiple deployment status and time spent outside the FOB reflect change in the nature of the larger force and the way in which Soldiers are being employed throughout theater. The change related to time in theater reflects that the J-MHAT 7 team came into theater in July to September of 2010, while the 2009 MHAT VI team was in theater in April and May of 2009. Time in theater is controlled statistically to normalize the data.

It is interesting to note that, for reasons unknown, the 2010 sample contains a significantly higher percentage of single Soldiers relative to 2009. The marital status finding suggests that the 2010 sample may have less power to detect effects related to marital outcomes. Marital status was not statistically controlled for across years since a series of models controlling for both Rank and Marital status found no evidence that marital status is a consistent predictor of key outcomes such as mental health symptoms.

Table 4.1: MHAT VI (2009) and J-MHAT 7 (2010) Sample Characteristics

	MHAT VI Maneuver (n=703)		J-MHAT 7 (n=911)	
Demographic Variable	n	Percent	n	Percent
Age				
18-24	442	62.9%	561	61.6%
25-29	171	24.3%	218	23.9%
30-39	77	11.0%	100	11.0%
39+	12	1.7%	21	2.3%
Unknown	1	0.1%	11	1.2%
Rank				
E1-E4	476	67.7%	598	65.6%
NCO	199	28.3%	277	30.4%
Officer / WO	24	3.4%	32	3.5%
Unknown	4	0.6%	4	0.4%
Component*				
Active	700	99.6%	837	91.9%
Reserve	1	0.1%	3	0.3%
National Guard	0	0.0%	69	7.6%
Unknown/Other	2	0.3%	2	0.2%
Marital Status*				
Single	324	46.1%	472	51.8%
Married	328	46.7%	364	40.0%
Divorced	28	4.0%	48	5.3%
Unknown/Widowed	23	3.3%	27	3.0%
Deployment History*				
First Time	471	67.0%	551	60.5%
Second Time	173	24.6%	251	27.6%
Third or More	59	8.4%	109	12.0%
Dwell-Time (+)				
Less than 12 Months	10	1.4%	13	1.6%
12 to 24 Months	115	16.4%	176	21.0%
More than 24 Months	108	15.4%	146	17.4%
1st Deployment/Unknown	467	66.7%	502	60.0%
Time in Theater*				
6 Months or Less	441	62.7%	495	54.3%
6 to 12 Months	245	34.9%	393	43.1%
Unknown	17	2.4%	23	2.5%
Days Outside FOB*				
15 or Less	410	58.3%	440	48.3%
More than 15	259	36.8%	423	46.4%
Unknown	34	4.8%	48	5.3%

* Significantly Differs Across Years

(+) Values exclude National Guard and Reserve Soldiers

5. SOLDIER REPORT: WELL-BEING INDICES

Behavioral health, well-being indices provide an overview of the well-being of the deployed force. This section reviews a variety of measures and compares them to previous OEF MHAT data. The standard graph used in this section provides:

1. Across-year comparisons represent sample-adjusted maneuver unit values for each of the four OEF MHATs. Values are adjusted for rank and time in theater, and describe male E1-E4 Soldiers in theater for 9 months. Values that significantly differ from J-MHAT 7 values are underlined.

2. Raw 2010 values include all survey responses and allow one to compare the overall population with sample-adjusted maneuver unit values. A sample adjusted value lower than a raw value, for example, would generally indicate that rank has an effect so including NCOs and Officers increases the value.

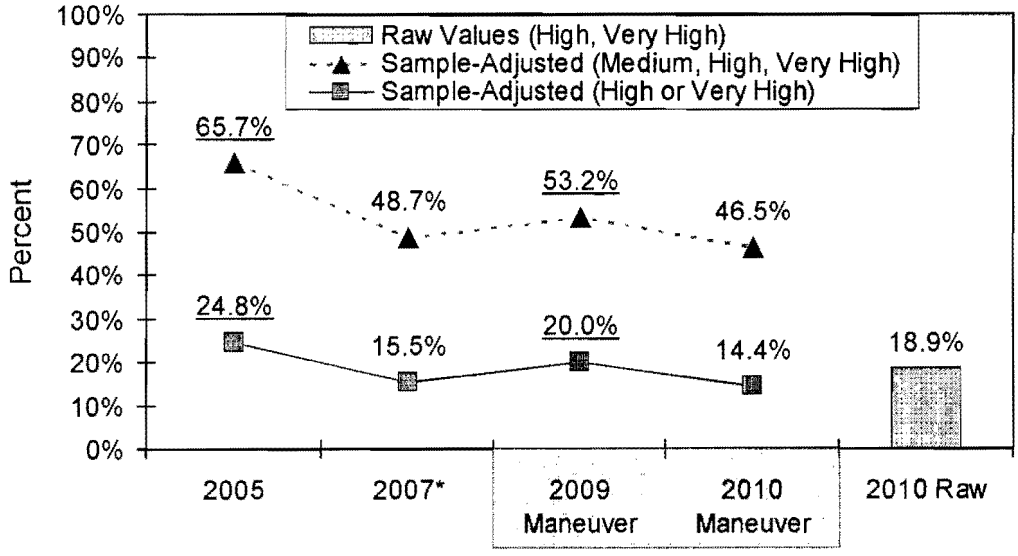
3. 2010-2009 comparisons are highlighted because the random, cluster-based sampling strategy was identical across years. This uniformity in sampling reduces the possibility that observed differences are due to different sampling procedures.

5.1 Morale

5.1.1 *Individual Morale*

Figure 5.1.1 provides the sample-adjusted percent of Soldiers who report (a) high or very high individual morale, and (b) **medium**, high and very high individual morale. Individual morale in 2010 is significantly lower than values reported in 2009 and 2005. The change relative to 2009 is particularly noteworthy given that sampling procedures were identical across years. Notice the raw value for 2010 is higher than the 2010 sample-adjusted value because the raw value includes NCOs and Officer who report higher morale.

Figure 5.1.1: Individual Morale

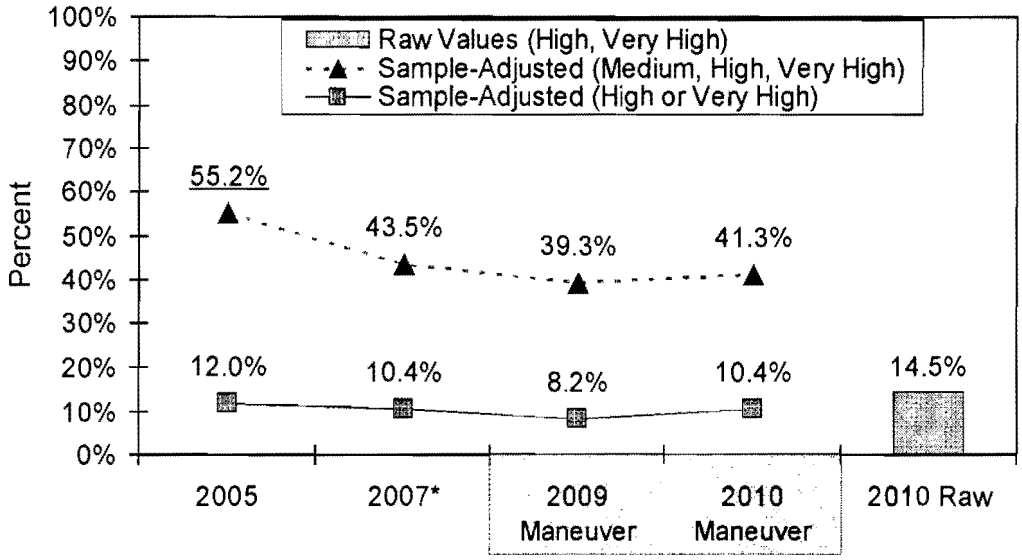


* Low sample size relative to other years

5.1.2 *Unit Morale*

Figure 5.1.2 provides the sample-adjusted percent of Soldiers who report (a) high or very high unit morale, and (b) **medium**, high and very high unit morale. The values for 2010 do not significantly differ from previous years with the exception that when the medium category is included, the value for 2010 is significantly lower than the value for 2005.

Figure 5.1.2: Unit Morale



* Low sample size relative to other years

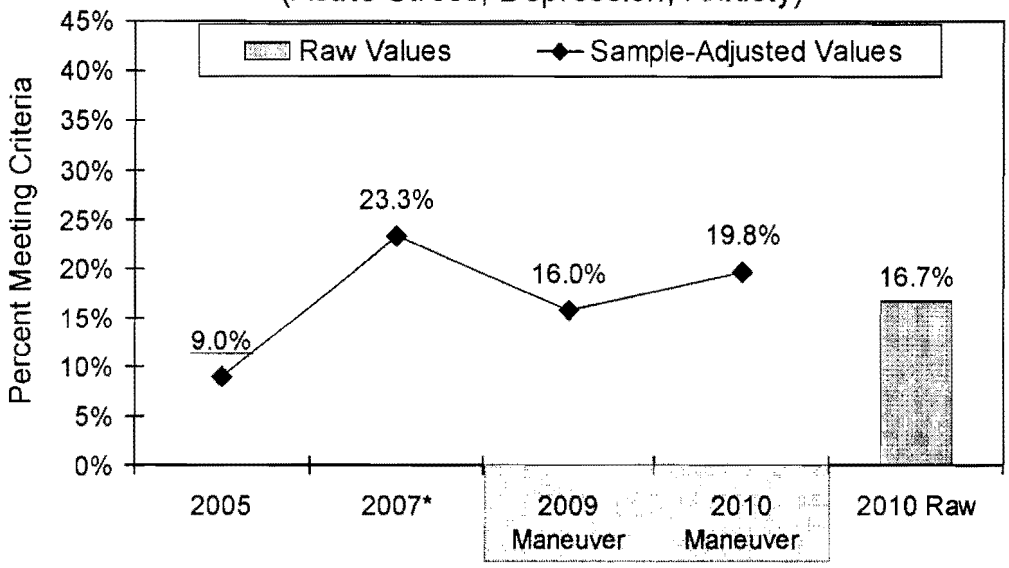
5.2 Behavioral Health: Acute Stress, Depression and Anxiety

Soldiers' ratings of depression, generalized anxiety and acute stress (i.e., Post-Traumatic Stress) were assessed using standardized, validated scales (Bliese, et al., 2008; Spitzer, Kroenke, & Williams, 1999; Weathers, Litz, Herman, Huska, & Keane, 1993). Details on scoring specific scales are available in previous MHAT reports.

5.2.1 *Behavioral Health: Any Psychological Problem*

The combined rating of any psychological problem (acute stress, depression or anxiety) is presented in Figure 5.2.1. The percent of Soldiers reporting psychological problems in 2010 is significantly higher than 2005. Note, however, the change between 2009 and 2010 is significant if one adopts a 90% rather than a 95% confidence level.

Figure 5.2.1: Any Psychological Problem
(Acute Stress, Depression, Anxiety)



* Low sample size relative to other years

5.2.2 *Acute Stress, Depression and Anxiety*

The specific values for acute stress, depression and anxiety are provided in Table 5.2.2. Acute stress values in 2010 are significantly higher than values reported in either 2009 or 2005. Depression and anxiety scores are significantly lower than values from 2007; however, the small sample size for this year makes the point-estimate less reliable.

Table 5.2.2 Raw Values and Sample-Adjusted Percents for Male, E1-E4 Soldiers in Theater 9 Months.

	Sample Adjusted MHAT Values				Raw Value
Mental Health Indicator	2005	2007*	2009	2010	2010
Acute Stress	6.0%	17.0%	13.2%	17.4%	15.1%
Depression	5.2%	16.0%	5.9%	7.9%	5.3%
Anxiety	5.5%	14.3%	6.0%	8.8%	5.6%

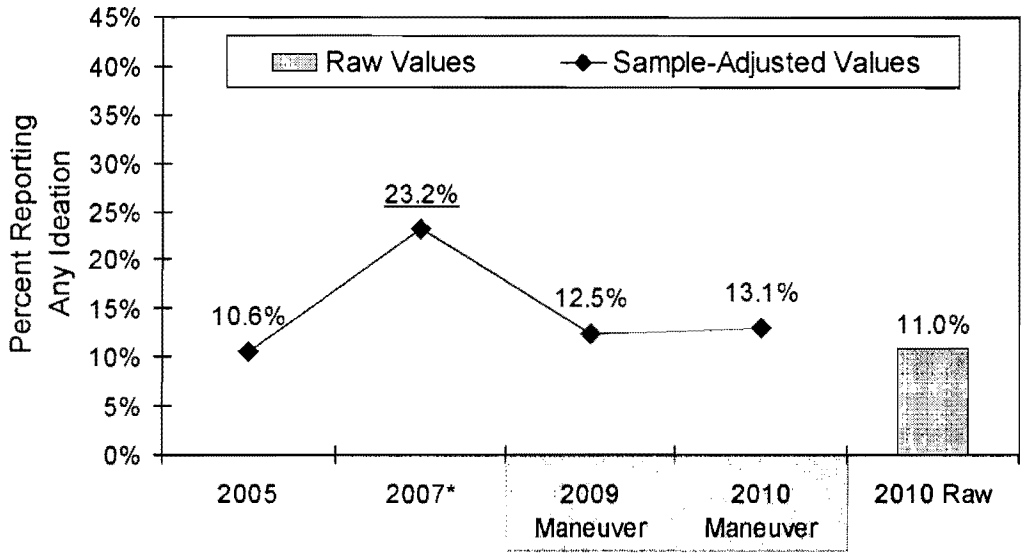
* Low sample size relative to other years

5.3 Suicide Ideation

Suicide ideation is assessed using a single depression item on the J-MHAT 7 OEF survey. This item (item 9 of the PHQ-D) asks Soldiers if they have been bothered by thoughts that they would be better off dead or of hurting themselves in some way over the last four weeks. For the

purposes of the report, any response other than "Not at all" is considered a positive response. Figure 5.3 shows that the 2010 rate of Soldiers reporting any suicide ideation is different only from the 2007 value (the latter value being based on a small sample and therefore less reliable than other numbers).

Figure 5.3: Suicide Ideation



* Low sample size relative to other years

5.4 Concussion (mTBI)

Attachment 2 of Directive-Type Memorandum 09-033 (DTM 09-033) dated June 21, 2010 detailed four concussive-related events requiring mandatory evaluations and reporting of exposure:

a. Any Service Member in a vehicle associated with a blast event, collision, or rollover
b. Any Service Member within 50 meters of a blast (inside or outside)
c. A direct blow to the head **or** witnessed loss of consciousness.

Although the J-MHAT 7 survey was designed prior to the release of the Directive, the events requiring medical evaluations can be approximated by the following items:

21. How many times during this deployment were you inside a vehicle damaged by a blast?	0 blast01 1 2 3 or more	22. How many times during this deployment were you within 50 meters of a blast explosion while dismounted?	blast02 0 1 2 3 or more

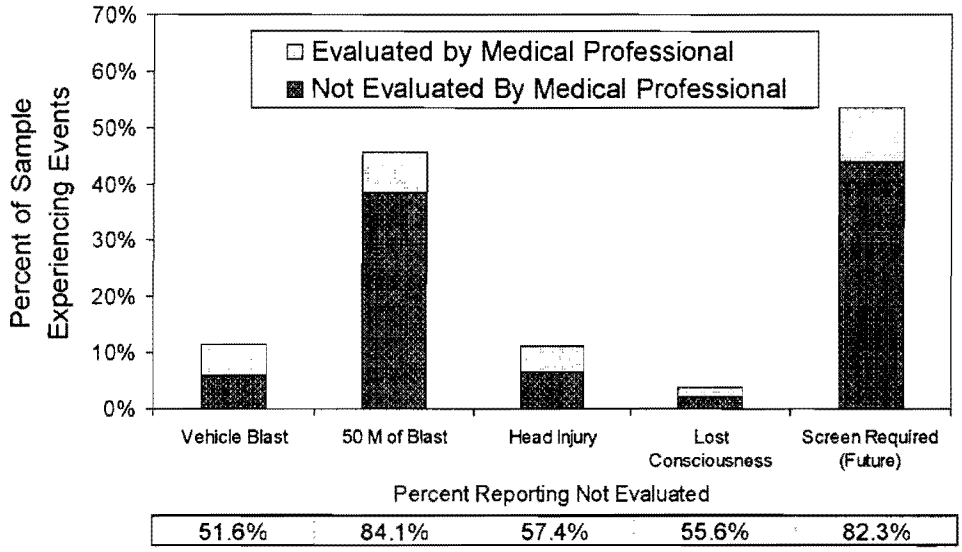
23a. Did any injury during this deployment involve a blow or jolt to your head?
No
Yes headinj1

18. Did any injury you received during this deployment involve the following:
Losing consciousness (knocked out) No Yes dpinjny10

In addition to the four items above assessing prevalence rates, the survey asked Soldiers whether they had been "evaluated by a medical professional for a TBI or concussion" using a Yes/No response option.

Figure 5.4 provides the prevalence rates of each of the four events plus the prevalence rate of whether the Soldier is required to receive a screen (Screen Required) based on the Directive. The total prevalence rate is divided into two subsamples – those that reported being evaluated and those that reported not being evaluated by a medical professional. The table on the bottom of the graph provides the percent within each category that reported not being evaluated by a medical professional.

Figure 5.4: Concussive Events and Medical Screening



The cumulative exposure rates in Figure 5.4 are 11.5% (In vehicle damaged by blast); 45.6% (within 50M of blast); 11.2% (head injury); 3.8% (lost consciousness), and 53.4% (a future screen required based on DTM 09-033). The figure clearly shows, however, that a low percentage of Soldiers currently report receiving screens.

In interpreting Figure 5.4, it is important to realize that the data used in the report was collected prior to the implementation of DTM 09-033. Therefore, it should not be surprising that the reported rates of those being evaluated are so low. In addition, it is possible that Soldiers who experienced the potentially concussive events were evaluated by the unit Medic. In a follow-up to these findings, the J-MHAT team ask focus group members whether they considered unit Medics "Medical Professionals." The majority of focus group respondents reported that they did not consider "Medics" to be "Medical Professionals." One NCO defined a medical professional as "someone who has a specialized training like a Physician's Assistant...not a Medic". When

focus group members were queried about their evaluations following post-concussive events, most stated that they had not been screened by a Medic either unless they had been involved in a vehicle damaged by blast. Overall, the results suggest (a) a need to increase the response categories to include evaluations by Medics in future J-MHAT surveys, and (b) that the implementation of DTM 09-033 will require significant effort based on the particularly high rates of exposure to being within 50M of a blast. Specific recommendations related to concussive events will be discussed in Section 17.

5.5 Pain Medications

J-MHAT 7 was the first MHAT to assess Soldiers' use of pain medications for chronic pain. The chronic pain module used in the MHAT was developed by the Kansas Department of Health and Environment and added to the 2007 Centers for Disease Control (CDC) Kansas Behavioral Risk Factor Surveillance System. In total, 838 Soldiers provided responses to the question with 35.6% (n=298) reporting chronic pain. The vast majority of Soldiers reporting chronic pain either took no medication (n=152; 51.0%) or took over-the-counter drugs (n=111; 37.2%). Only 7.4% (n=22) of the respondents in chronic pain reported taking prescription pain medications, with 15 of the 22 reporting that the medication was prescribed in theater. The remaining 13 (4.4%) took some other drug or marked unknown. Overall, only 2.6% of the total population surveyed reported taking prescription pain medications.

As a point of reference, in a subsample of 180 randomly selected employed men between the ages of 18-34 with health insurance in the state of Kansas (Toblin, et al., in press), 15.0% reported chronic pain. Of those with chronic pain, 48.1% were taking an over-the-counter and 14.8% reported taking a prescription medication. With this as a referent group, it is clear that reported rates of chronic pain are much higher in the military sample (35.6% versus 15%, respectively); however, rates of prescription pain medication use among those reporting chronic pain is lower in the Army than in the random sample of men from Kansas (7.4% versus 14.8%, respectively).

5.6 Medications for Sleep and Mental Health Problems

In both J-MHAT 7 in 2010 and MHAT VI in 2009, respondents were asked (1) "Have you taken any medication for a sleep problem during this deployment?" and (2) "Have you taken any medication for a mental health or combat stress problem during this deployment?"

In J-MHAT 7 in 2010, 11.4% of the Soldiers sampled reported taking medications for sleep problems compared to 9.6% in MHAT VI in 2009. This difference was not significant. It is interesting to note that the majority of Soldiers who take sleep medications also consume energy drinks. Sixty percent (60.0%) of Solders who reported being on sleep medications drink at least one energy drink per day. In contrast, 42.7% of Soldiers who reported not taking sleep medications report drinking at least one energy drink per day. This differential rate of use (42.7% versus 60.0%) is statistically significant.

It is difficult to determine if caffeine consumption is the cause or the effect. Soldiers who are experiencing more sleep disruption due to operational demand would be expected to take more caffeine. Alternatively, high doses of caffeine or consuming caffeine before sleep can interfere with sleep. Caffeine should be limited for several hours prior to anticipated sleep and Soldiers should not consume more than 400-500 mg of caffeine per day, regardless of the source, because it may interfere with sleep which is essential for optimal mental performance (personal

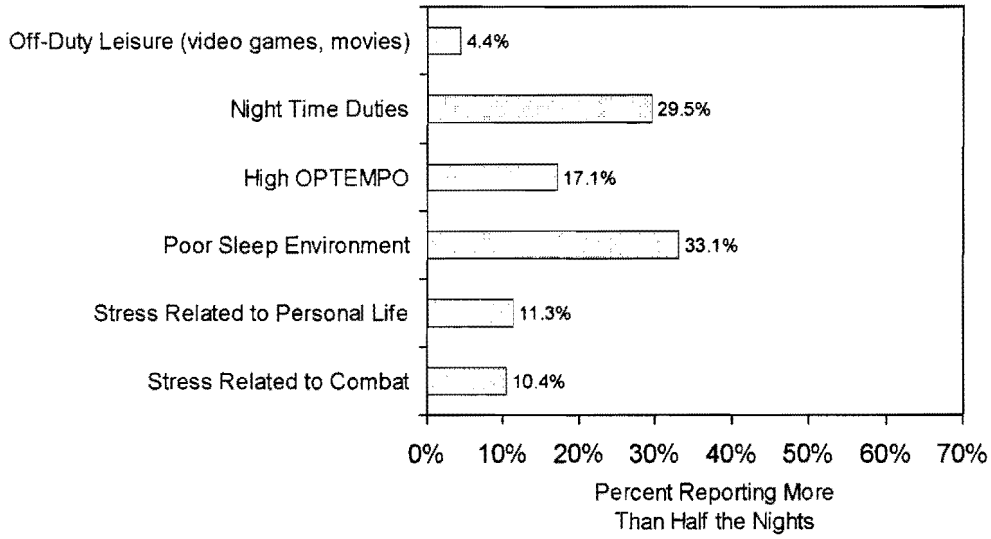
communication with Dr. [redacted] Military Nutrition Division, U.S. Army Research Institute of Environmental Medicine, Natick, MA). The U.S. Army Research Institute of Environmental Medicine has initiated a survey of caffeine and dietary supplement intake in theater.

In terms of mental health medications, 3.7% of the Soldiers sampled reported taking medication for a mental health or combat stress problem in 2010 compared to 2.6% in 2009 (a non-significant difference). As a point of reference, in interpreting the use of medications for mental health or combat stress, Olfson and Marcus (2009) report rates of antidepressant medications use from nationally representative probability samples collected in 1996 and 2005. Based on these data, the rate of antidepressant use for (a) 21-34 year old (b) males who were (c) employed with (d) health insurance was 2.28% in 1996 and 4.59% in 2005 (Olfson and Marcus: personal communication, 31 AUG 2010). Clearly, the values of 2.6% to 3.7% reported over the last two years by MHAT respondents are well-within the National estimates for this demographic group.

5.7 Factors Impacting Sleep Disturbance and Work Performance

Figure 5.7 presents the percent of Soldier who report that their sleep has been disturbed or interfered with more than half of the last 30 nights by (a) stress related to combat, (b) stress related to personal life and problems (c) poor sleep environment (too noisy, bright, hot, cold, etc.), (d) high OPTEMPO, (e) nighttime duties, and (f) off-duty leisure activities (video games, movies, etc.). J-MHAT 7 is the first time that this question was asked, so comparisons are not possible across years.

Figure 5.7: Sleep Problems During Last Month: "How Often Have the Following Interfered with Your Sleep?"

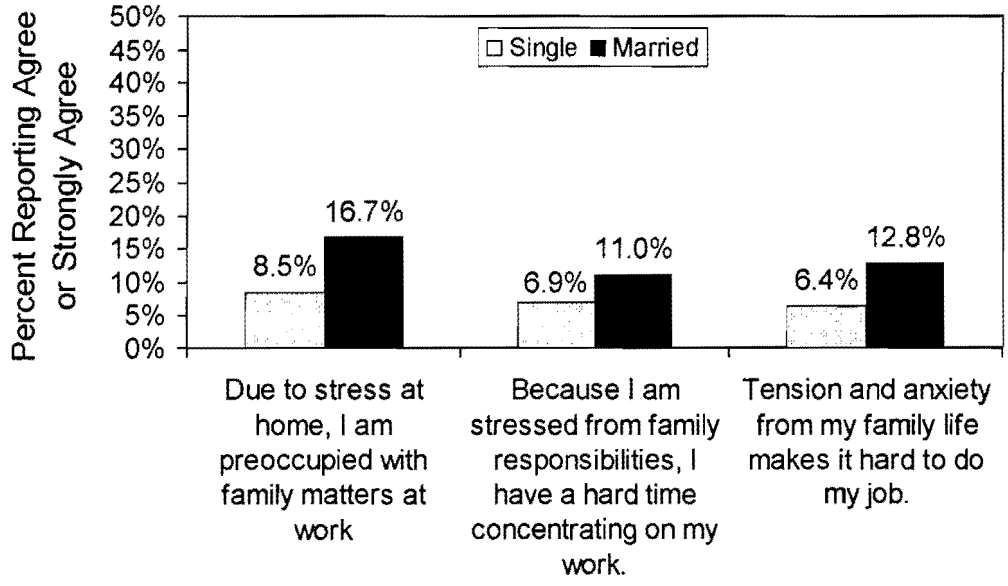


The highest causes of sleep interference were poor sleep environment and nighttime duties, and some of these issues may have been related to the surge. For instance, an E4 in a focus group stated "You want to throw 20 people into a 10 man tent and have us live like that for the past 9 months....REALLY?".

Notice that stress related to personal life is reported to interfere with sleep with virtually the same frequency as stress related to combat. This finding is particularly salient given the high degree of combat exposure reported in the OEF 2010 sample (see section 6.1). The finding indicates the degree to which concerns about family and other aspects of a Soldier's personal life continue to impact deployed Soldiers.

Figure 5.7.1 provides additional detail on the degree to which family concerns impact Soldiers while deployed. The question is new to J-MHAT 7; therefore, we have no comparable data across years; nonetheless, the graph shows that family-related concerns are significantly more of a work issue for married Soldiers than for single Soldiers (marital status differences are significant for all items in Figure 5.7.1).

Figure 5.7.1 Family Concerns and Work Performance



6. SOLDIER REPORT: RISK FACTORS

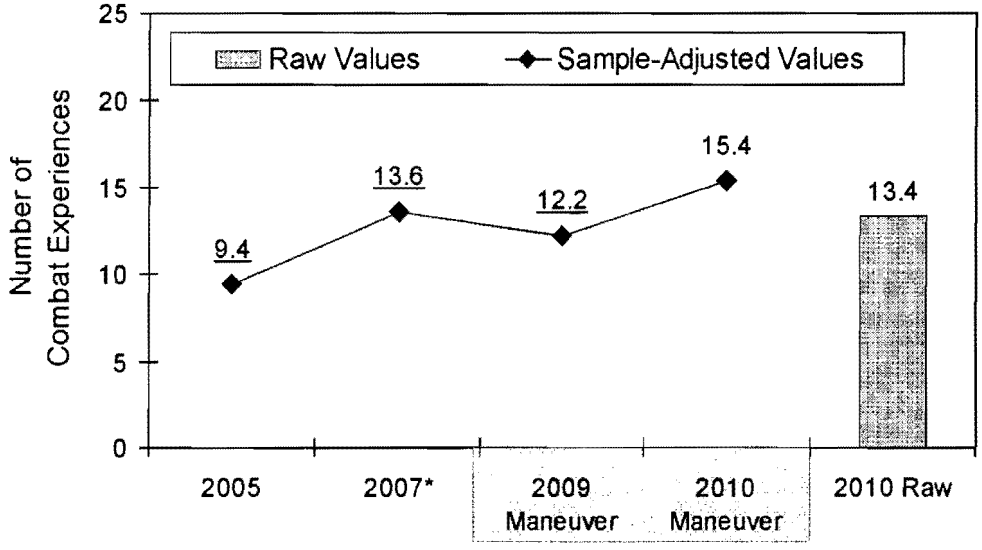
As noted, it is convenient to classify Soldier risk factors into four broad categories: combat-related risk factors, relationship problems, OPTEMPO-related risk factors, and deployment concerns. Changes in behavioral health indices are presumably associated with changes in these four categories of risk factors.

6.1 Combat Experiences

Exposure to potentially traumatic experiences is one of the principal risk factors for behavioral health problems in combat settings (Fontana & Rosenheck, 1998). Thirty combat experience items have been consistently assessed across MHATs. A combat experience score indicating whether the Soldier experienced the item at least once provides an efficient way to summarize changes in combat experiences across years.

Figure 6.1 provides a comparison of the sample-adjusted mean number of combat experiences from 2005 to 2010. The levels of combat exposure reported by Soldiers in 2010 are significantly higher than any other year to include 2009.

Figure 6.1: Total Combat Experiences
(Average Sum Score Across Years)

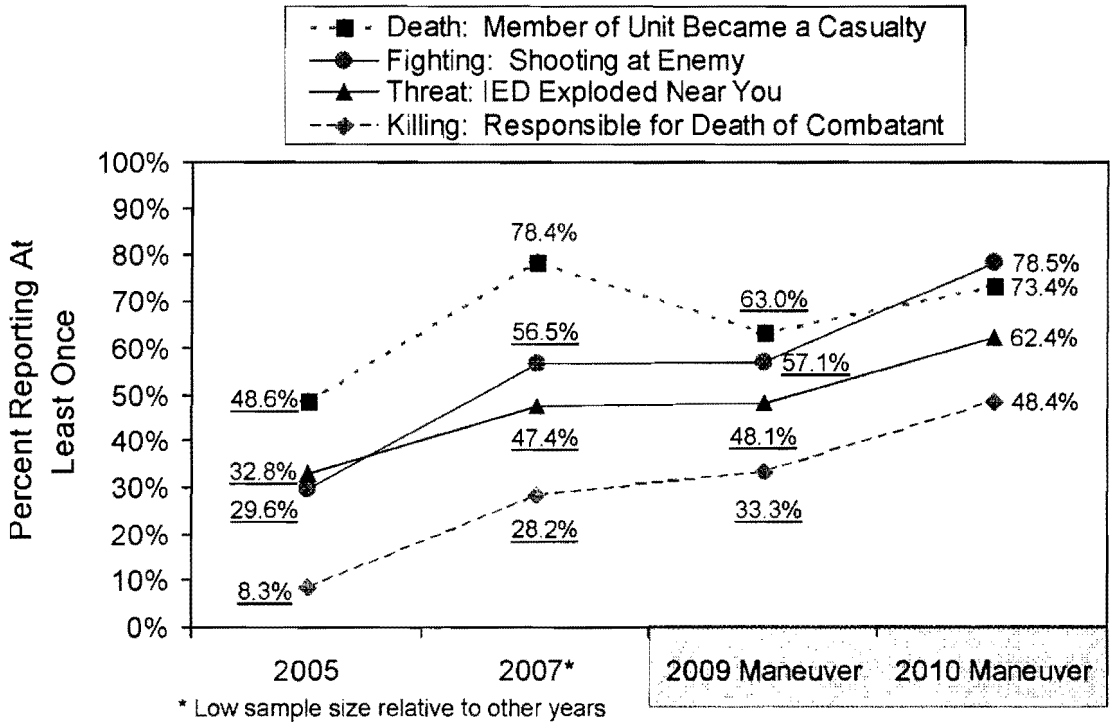


* Low sample size relative to other years

Researchers such as Fontana and Rosenheck (1998) have suggested that it is useful to categorize combat experiences into demand-related dimensions: Fighting, Killing, Threat to Oneself, Death/Injury of Others, and Atrocities. Wilk et al. (2010) show that combat items such as those asked in the J-MHAT survey can be reliably categorized into the five dimensions and that these dimensions are useful in terms of predicting behavioral health outcomes.

The 30 items assessed in the J-MHAT survey can be categorized into four of the five demand-related dimensions (atrocities were not assessed). Figure 6.1.1 provides a representative item from each of the four dimensions across time. Analyses showed that the rates reported in 2010 are significantly higher than rates reported any other year with the exception that the rate for experiencing a member of the unit becoming a casualty in 2007 (78.4% does not differ from the rate reported in 2010). The significant increase from 2009 to 2010 is particularly salient as sampling methods were identical both years and both years had large sample sizes.

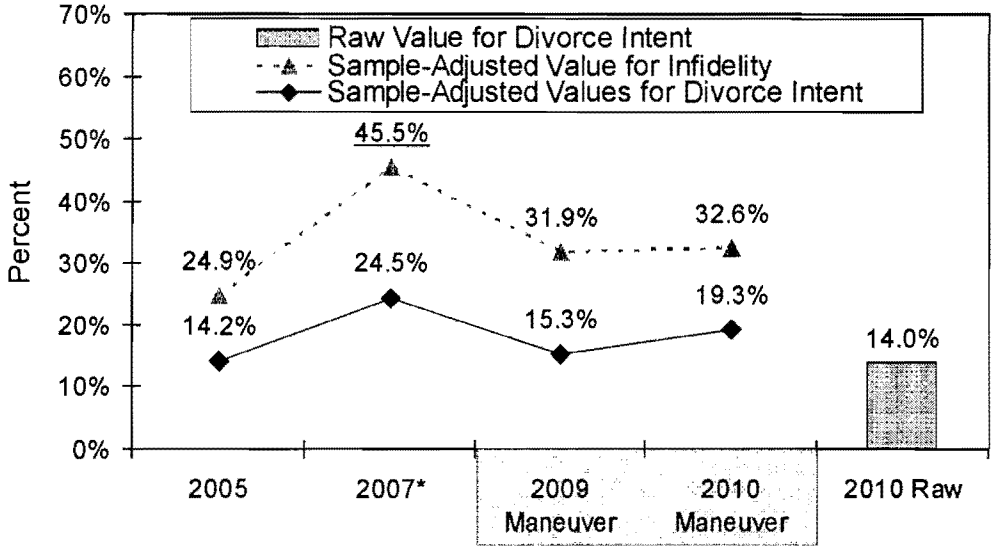
Figure 6.1.1: Representative Combat Experiences



6.2 Relationship Problems

Relationship problems with spouses comprise a second major risk factor for a variety of behavioral health issues. Two straight-forward indices of relationship problems are (a) the percent of married Soldiers that are considering a divorce or separation and (b) the percent of Soldiers that endorse "yes" or "unsure" to the question of whether infidelity is a problem in their marriage. Figure 6.2 shows that values in 2010 were not statistically different from other years with the exception that concerns about infidelity were significantly higher in the small sample of maneuver unit Soldiers collected in 2007.

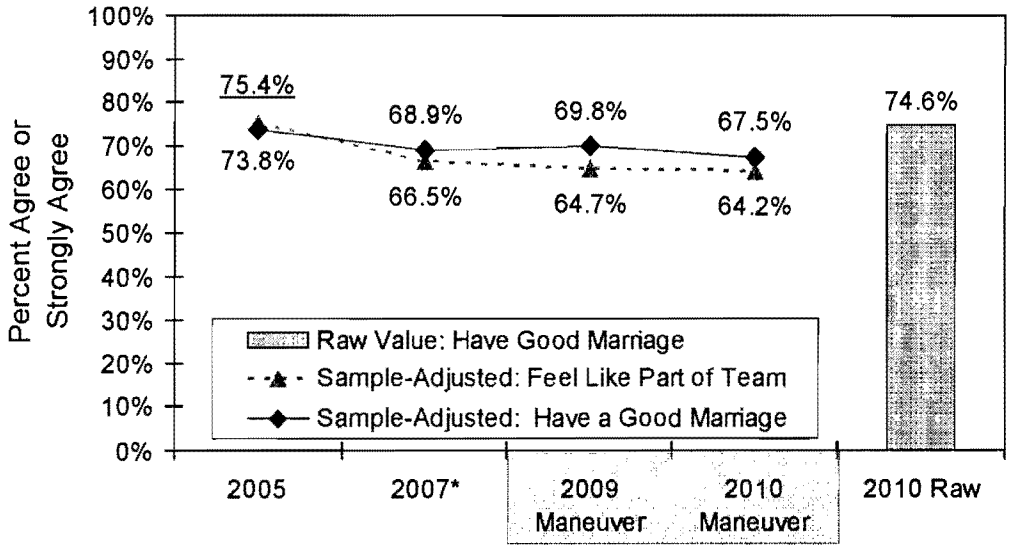
Figure 6.2: Planning Divorce / Separation
Infidelity a Problem or Unsure



* Low sample size relative to other years

Intent to divorce or separate and concern about infidelity are more extreme instances of marital relationship problems; consequently, they may not be as sensitive to changes as would less extreme questions about marital relationships. Figure 6.2.1 provides responses to two marital satisfaction items adapted from Norton (1983): (1) I have a good marriage, and (2) I really feel like a part of a team with my spouse. The figure shows that the percentage of E1-E4 Soldier reporting positive marital satisfaction on these two items has not significantly changed since 2007. The only significant difference is that a lower percentage of Soldiers report feeling like part of a team in 2010 than in 2005.

Figure 6.2.1: Marital Satisfaction Items

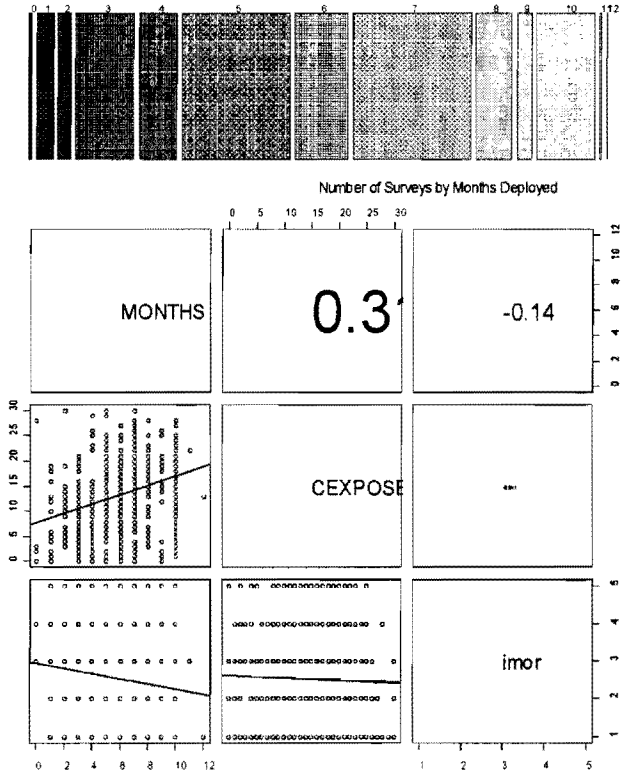


* Low sample size relative to other years

6.3 OPTEMPO Factors: Months Deployed

Previous MHAT reports have consistently shown that months deployed are related to a variety of risk factors and behavioral health indices. For instance, the longer a Soldier has been in theater, the more likely he or she is to accumulate combat experiences. Figure 6.3 shows a mosaic plot of the number of months Soldiers reported being in theater in the OEF 2010 sample (top graphic). The scatterplot in the lower part of the figure shows that months deployed continues to be related to variables such as combat exposure (CEXPOSE) and individual morale (imor). The font for the correlation coefficient is larger for stronger correlations, so the correlation between months deployed and combat exposure is stronger than the correlation between months deployed and individual morale. As noted in section 2.3.1 months deployed is used as a predictor throughout the analyses to provide a means of estimating adjusted values as though respondents had been in theater 9 months.

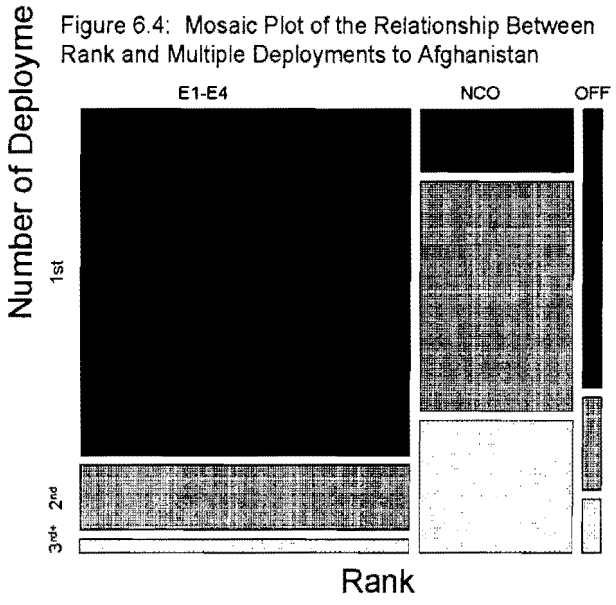
Figure 6.3: Mosaic Plot and Scatterplot Matrix of Months Deployed



6.4 OPTEMPO Factors: Multiple Deployments

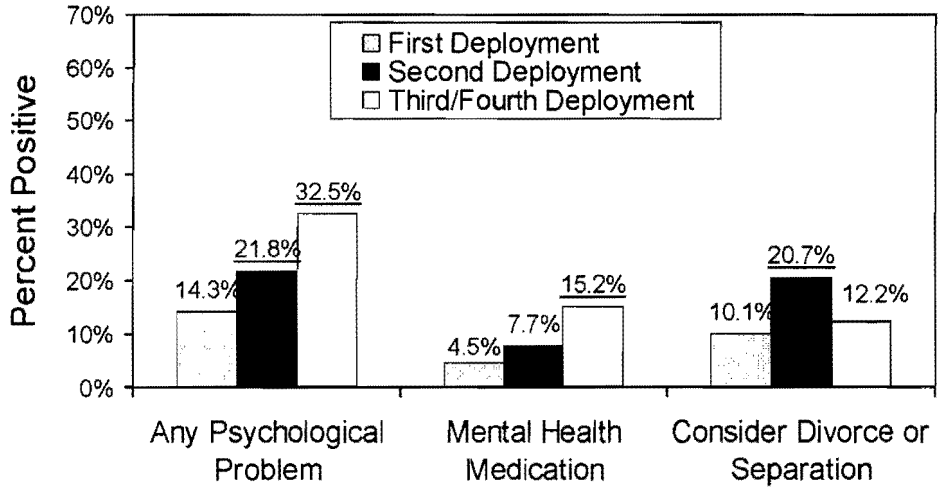
Table 4.1 in section 4 provides a breakdown of the sample in terms of multiple deployment status. Recall that in 2010 the percentage of first-time deployers is significantly smaller than in 2009. As with previous years, however, Soldiers in the multiple-deployer group are predominately NCOs. Figure 6.4 provides a mosaic plot showing deployment status (First Deployment, Second Deployment and Third or more Deployments) by rank. Notice that there

are relatively few first time deployers among the NCO group and a relatively large number of first-time deployers among the other groups.



Previous MHATs in Iraq and Afghanistan identified multiple deployments as a risk factor for a variety of well-being indices. Figure 6.4.1 reveals that this finding holds true for J-MHAT 7. A significant dose-response relationship is evident with both NCOs on their second deployment and NCOs with three or more deployments for (1) psychological problems and (2) use of medications. Figure 6.4.1 also reveals a multiple deployment effect on the risk factor of intent to divorce and separate. Specifically, those on their second deployment reporting a significantly higher likelihood of divorce intent than those on their first deployment.

Figure 6.4.1: Sample-Adjusted Values for NCOS in Theater 9 Months



6.5 Deployment Concerns

While combat experiences are intense events that put Soldiers at risk, other less dramatic, but more chronic concerns can impact behavioral health. MHAT surveys assess a core set of 11 deployment concern items listed in Table 6.5; notice that the only concern to significantly increase is "Difficulties communicating back home" which may reflect logistic challenges associated with supporting the surge.

Table 6.5: Adjusted Percents for E1-E4 Soldiers in Theater 9 Months.

	Percent rating High or Very High	
Trouble or Concern Caused By	MHAT VI 2009	J-MHAT 7 2010
Being separated from family.	32.1%	34.0%
Illness or problems back home.	15.4%	17.4%
Boring and repetitive work.	32.4%	35.7%
Difficulties communicating back home.	19.6%	24.6%
Uncertain redeployment date.	33.3%	31.0%
Lack of privacy or personal space.	37.9%	39.8%
Lack of time off, for personal time.	37.7%	35.8%
Not having the right equipment or repair parts.	26.7%	27.0%
Not getting enough sleep.	28.7%	32.7%
Continuous operations.	28.1%	28.4%
Long deployment length.	26.9%	29.3%

7. SOLDIER REPORT: RESILIENCE FACTORS

Resilience factors are the third broad category of factors in the conceptual model of Soldier well-being. The concept of psychological resilience can be defined as the ability to maintain psychological health (or even to experience psychological growth) when faced with challenges. As illustrated in this section, resilience is affected, both positively and negatively, by multiple factors to include unit climate, individual coping behaviors, the willingness and ability to seek care, marital support, and perceptions of behavioral health training designed to help Soldiers.

7.1 Unit Factors

Unit factors such as small-unit leadership (NCO and Officer), cohesion, and readiness are directly related to unit well-being, and often play a role in attenuating the link between deployment stressors and behavioral health outcomes (e.g., Bliese & Castro, 2003; Bliese, 2006). In other words, under demanding circumstances such as high levels of combat, effective leadership can serve as a protective or buffering influence that reduces the amount of acute stress Soldiers report (MHAT VI, OIF Report). Attenuating or buffering effects have been detected in MHAT reports with sample sizes well over 1,000 (MHAT V and MHAT VI from OIF), but are notoriously difficult to detect in smaller sample sizes (<1000), because the effect sizes associated with interactions tend to be small. Given this background, it is not surprising that no interactive effects were observed between the unit factors and risk factors such as combat exposure. Even without these interactive effects, however, it is valuable to examine how ratings of these core unit factors vary across years.

Figure 7.1 contrasts across years the ratings of the two central unit factors (cohesion and perceived unit readiness). For clarity in presentation, scale scores were dichotomized such that any scale score above 3.0 was considered positive and any scale score below or including 3.0 was considered negative.

Figure 7.1: Unit Climate Variables

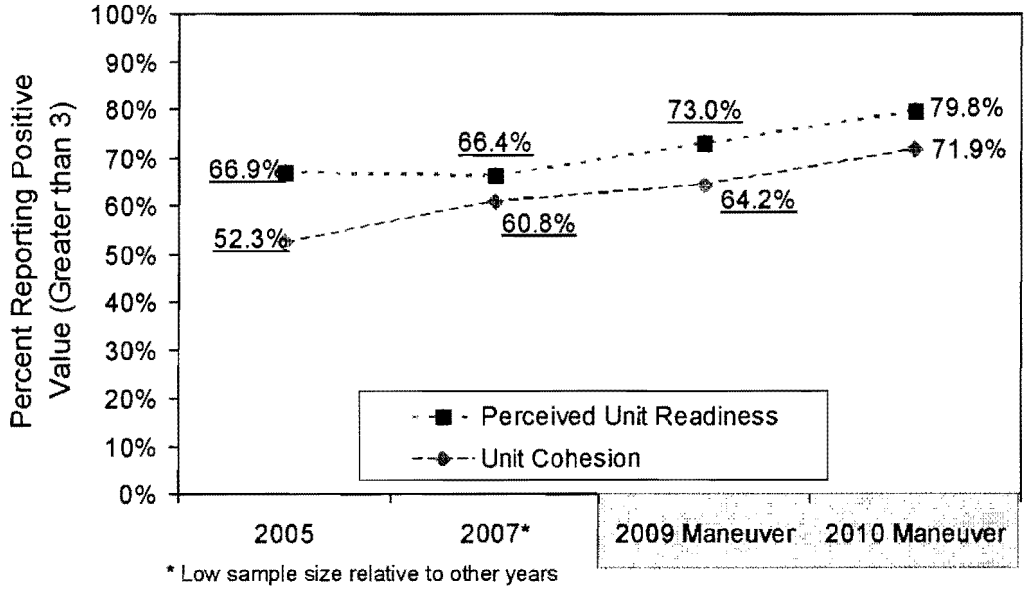
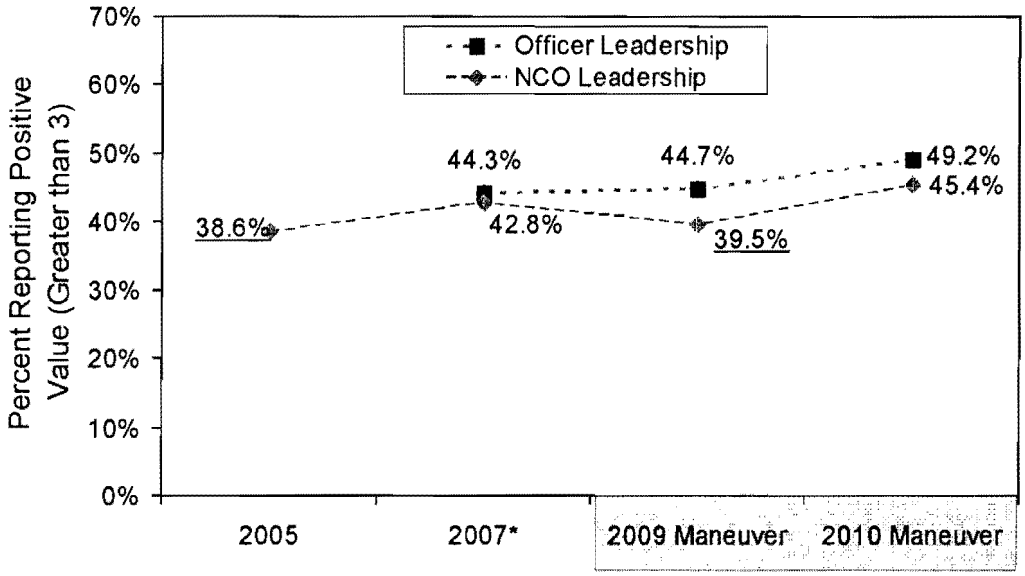


Figure 7.1.1 provides ratings for small-unit NCO and Officer leadership. In Figure 7.1.1, Officer leadership values are not provided for 2005, because several core items were not included in the 2005 survey. Ratings of Officer leadership in 2010 did not differ significantly from previous years. Ratings of NCO leadership, however, were significantly higher than every year except 2007. As an example of positive NCO leadership, an E3 stated that the "platoon sergeant set up a slide show showing us what our mission would be; what to expect once we got here; how what we would be doing was going to benefit the war effort...there is always a much bigger picture that we don't always see."

Figure 7.1.1: Small-Unit Leadership



* Low sample size relative to other years

Overall, Figures 7.1 and 7.1.1 show that ratings of the core unit climate measures are significantly higher in 2010 than in 2009 for every variable except perceptions of small-unit Officer leadership. Implications of these findings will be discussed in more detail in section 9.

7.2 Stigma

At an organizational level, one way to enhance resilience would be to encourage Soldiers to seek care before problems escalate. From this perspective, low levels of stigma could be considered a resilience factor. A key factor for seeking care is overcoming the stigma associated with behavioral healthcare. One of the challenges is that stigma is strongest among individuals who screen positive for psychological problems (Hoge, et al., 2004). Therefore, when looking at changes in rates of perceived stigma, it is informative to examine those who screen positive for psychological problems.

Table 7.2 provides the sample-adjusted rates (E1-E4 Soldiers in theater 9 months) between 2009 and 2010 for (a) those that **do** screen positive for mental health problems, and (b) those that **do not** screen positive for mental health problems. Response rates to these questions have remained stable across years.

Table 7.2: Sample-Adjusted Stigma Percents for E1-E4 Soldiers in Theater 9 Months who Screen Positive and Who Do Not Screen Positive for Any Mental Health Problems

	Percent Agree or Strongly Agree			
	MHAT VI OEF 2009		J-MHAT 7 OEF 2010	
Factors that affect your decision to receive mental health services	Screen Positive	Do Not Screen Positive	Screen Positive	Do Not Screen Positive
It would be too embarrassing.	31.5%	12.5%	28.6%	13.3%
It would harm my career.	34.6%	13.7%	29.2%	15.4%
Members of my unit might have less confidence in me.	46.2%	19.4%	41.8%	23.9%
My unit leadership might treat me differently.	48.3%	22.2%	46.0%	23.7%
My leaders would blame me for the problem.	35.5%	14.5%	33.9%	13.0%
I would be seen as weak.	49.2%	24.0%	48.9%	25.8%

7.3 Barriers to Care

Barriers to care assess the degree to which Soldiers report that behavioral healthcare services are available. Historically, high troop dispersion has created challenges in delivering behavioral healthcare to Soldiers. In 2010, two factors are likely to have exerted an influence on Soldiers' reports of barriers to care. The first factor is that there has been an increase in the number of mental health personnel relative to the overall population. The overall staffing ratio in 2010 is 1:646 (see section 15.2); while in 2009 it was only 1:1123 Service Members. This increase in behavioral health assets relative to Service Members should decrease the barriers to care. At the same time, however, in 2010 there has been a significant increase in the number of hours Soldiers reported spending outside of the FOB (see Table 4.1), and high troop dispersion outside of FOBs increases the barriers to care.

Table 7.3 provides sample-adjusted rates for both for Soldiers meeting the criteria for a psychological problem and those not meeting the criteria. In the Table it is noteworthy that all six of the barriers are lower in 2010 than in 2009 for both the screen positive and do not screen positive groups. Using a conventional p-value of .05, there is evidence of a significant decrease in barriers to care for two of the six variables, and evidence of two more decreases using a p-value of .10. A more liberal p-value is warranted in part because when barriers to care are analyzed as a scale (each item combined into a single measure), the scale shows an overall significant reduction in barriers relative to 2009 ($p<.01$).

Table 7.3: Sample-Adjusted Barriers Percents for E1-E4 Soldiers in Theater 9 Months who Screen Positive and Who Do Not Screen Positive for Any Mental Health Problems

Factors that affect your decision to receive mental health services	Percent Agree or Strongly Agree			
	MHAT VI OEF 2009		J-MHAT 7 OEF 2010	
	Screen Positive	Do Not Screen Positive	Screen Positive	Do Not Screen Positive
Mental health services aren't available.	36.8%	15.8%	27.0%	11.2%
I don't know where to get help.	17.4%	6.7%	16.1%	4.6%
It is difficult to get an appointment.	39.9%	13.9%	29.4%	12.2%
There would be difficulty getting time off work for treatment.	57.3%	21.8%	47.8%	18.5%
It's too difficult to get to the location where the mental health specialist is.	48.0%	21.6%	31.7%	15.5%
My leaders discourage the use of mental health services.	18.1%	6.4%	14.3%	4.1%

Significant with a p-value of .10

7.4 Training

The final section on protective factors focuses on Soldiers' reports of whether the training they received is perceived to have been effective. Table 7.4 shows that the percentage of Soldiers reporting that they received suicide prevention training and training to manage the stress of deployment is significantly lower in 2010 than in 2009.

Table 7.4: Sample-Adjusted Percents for Male, E1-E4 Soldiers in Theater 9 Months.

Suicide and Stress Training / Use	Percent "Yes"	
	MHAT VI 2009	J-MHAT 7 2010
I have received suicide prevention training in the past year.	88.3%	83.2%
I have received training in managing the stress of deployment and/or combat prior to this deployment.	83.3%	80.1%
I have assisted one or more fellow Service Members with a mental health problem in the past year.	35.0%	32.6%
I helped a Service Member who had a Mental Health Problem get professional help.	25.4%	24.1%

Table 7.4.1 shows a significant increase in the percentage of Soldiers that agree or strongly agree that the training they have received is adequate. Taken together, these two tables indicate a mixed story relative to 2009. Training coverage may have declined, but perceived training adequacy has significantly increased.

Table 7.4.1: Sample-Adjusted Percents for Male, E1-E4 Soldiers in Theater 9 Months.

	Percent Agree or Strongly Agree	
Adequacy of Suicide and Stress Training	MHAT VI 2009	J-MHAT 7 2010
I am confident in my ability to identify Service Members at risk for suicide.	51.3%	60.3%
I am confident in my ability to help Service Members get mental health assistance.	52.4%	68.5%
The training for identifying Service Members at risk for suicide was sufficient.	50.0%	59.2%
The training in managing the stress of deployment and/or combat was adequate.	42.8%	53.0%

8. SOLDIER FOCUS GROUP SUMMARY

Leadership scholars have identified a number of critical leadership functions that need to be addressed in order to foster team success (see review by Morgeson et al. 2010). Although there are many traditional leadership models, the framework presented by Morgeson et al. provides a way of understanding formal leadership functions in the context of a team environment while emphasizing that multiple sources of leadership can exist within the team itself. In brief, the authors described 15 team leadership functions that help teams to meet their critical needs and regulate their behavior to support mission accomplishment. Meeting these leadership functions helps maintain performance in teams such as maneuver unit platoons.

Table 8: Focus Group Interview Questions Based on Team Leadership Functions Across Transition and Action Phases*	
Transition Phase: Looking back on your preparation for deployment, how would you all rate leadership in terms of:	**Action Phase:** Now that you've been performing your mission for some time, how would you all rate leadership in terms of:
***Compose Team**: putting together platoons and squads that had the right mix of team members in terms of both skills and ability to work together?*	***Monitor Team:** monitoring the team's and team members' performance and adjusting to changes in the changes in the environment that impact the team?*
***Define Mission**: making sure the team had a clear understanding of its mission and what the team would be accomplishing?*	***Manage Team Boundaries:** being a representative of the team; advocating for the team with outside groups, and helping resolve difficulties between platoons and higher leadership?*
***Establish Expectations and Goals**: setting and communicating clear standards of performance?*	***Challenge Team:** reconsidering key assumptions; suggesting new ways to do things and contributing ideas on how to improve work?*
***Structure and Plan**: making sure team members had clear roles and developed SOPs?*	***Perform Team Task:** pitching in and rolling up their sleeves to help the team accomplish their mission?*
***Train and Develop Team**: helping new members learn tasks, develop the necessary skills and perform their assigned jobs?*	***Solve Problems:** seeking out multiple perspectives and helping the team develop solutions to mission-related problems?*
***Sensemaking**: helping the platoon make sense of things happening within the platoon, and help them understand events and situations happening outside of the platoon?*	***Provide Resources:** making sure your platoon has equipment and supplies available?*
***Provide Feedback**: providing positive feedback when the team performed well and corrective feedback when needed?*	***Encourage Self-Management:** encouraging the team to solve its own problems and assess its own performance?*
Transition Phase: preparing for and evaluating readiness to accomplish the mission. ***Action Phase:*** executing work directly contributing to mission accomplishment. * Based on Morgeson et al. 2010	***Social Support Climate:** looking out for the personal well-being of team members and demonstrating respect and concern for team members?*

Marks, Mathieu, & Zaccaro (2001) divide the temporal cycles of goal-directed activity into two distinctive phases that we believe align with the military deployment cycle. In the transition (pre-deployment) phase, team activities are centered on preparing for and evaluating readiness to accomplish the mission. In the action (deployment) phase, teams execute work that directly contributes to mission accomplishment. We also note, however that there may be unique aspects of the military deployment cycle (i.e., re-deployment) that require further examination.

Across the transition and action phases, distinct needs for leadership arise that must be met either formally (chain of command) or informally (within the team itself) in order for high performing teams to continue to function effectively. The J-MHAT 7 team used the framework as a starting point when conducting focus groups with junior enlisted Soldiers and NCOs and adapted the interview questions around the major leadership functions for pre-deployment and deployment (see Table 8).

The overarching goal in conducting focus groups this year was to examine how training might be designed to help leaders better prepare for combat deployments and contribute to building more resilient platoons. As such, we asked questions about the training Service Members received and about their small-unit leadership in order to understand how a variety of leadership functions were handled in their platoons using the Morgeson et al., (2010) framework.

8.1 Methods

The J-MHAT 7 OEF team conducted 16 focus groups with a total of 69 Soldiers [9 focus groups with junior enlisted (E1-E4, n=39) and 7 focus groups with NCOs (E5 to E9, n=30)] from within the ATO (see table 8.1). Three groups of two to three J-MHAT 7 team members traveled by air to meet with Soldiers at [redacted]. The Medical Operations Officer/NCOIC coordinated with the medical staff at each location to meet the team and make arrangements for the focus groups.

Table 8.1: Focus Group Demographics for J-MHAT 7 (2010)

Variable	n	%	Variable	n	%
Rank			**Component**		
E1-E4	39	56.5	Active	64	92.8
NCO	30	43.5	National Guard	5	7.2
Marital Status			**Children**		
Single	33	49.3	Yes	33	47.8
Married	34	47.8	No	36	52.2
Divorced	2	2.9			
Deployment History			**Time in Theater**		
First Time	32	46.4	6 Months or Less	8	11.6
Second Time	23	33.3	6 to 12 Months	61	88.4
Third or More	14	20.3			

Focus group sessions were conducted in separate locations for junior enlisted Soldiers and their NCOs. The participants were informed that everything they contributed would be kept confidential and that their names would not be associated with the notes taken during the

session. Participants were given the opportunity to review all notes prior to leaving. Session duration ranged from approximately 1-2 hours, with the average session taking about 90 minutes. Sessions with NCOs typically lasted longer than those with junior enlisted Soldiers.

Participants were given a definition of each leadership function in the transition and action phases and were asked to discuss how the functions were handled within their teams before providing the J-MHAT 7 team members with an overall impression of how well the function was performed by their leadership using a red (poor), amber (average), or green (good) rating. Junior enlisted Soldiers evaluated their platoon leadership and their comments were typically about their platoon NCOs. In contrast, NCOs rated their company leadership and their comments were typically about senior NCOs and junior Officers. Participants were also asked how easy they thought it was to come to a consensus on their ratings and whether other platoon members would agree with their rating. In most cases, focus groups reported that it was easy to come to a consensus on their ratings and that their platoons would support their ratings.

8.2 Results

All focus group ratings were scaled (red=1, amber=2, or green=3) and a total score was calculated for each leadership function for both junior enlisted Soldiers and for NCOs. The total scores were then divided by the number of participants in each type of focus group to calculate weighted averages for each leadership function. The weighted averages were broken down into red (1.0-1.3), red/amber (1.4-1.7), amber (1.8-2.2), amber/green (2.3-2.6), and green (2.7-3.0). This approach allows us to make a clearer distinction for each leadership function, allowing for a better understanding of how junior enlisted Soldiers and NCOs rate their leadership in terms of what they think is working or where improvements are needed. The highest and lowest rated leadership functions across focus groups are presented in Table 8.2 and the ratings for all leadership functions are presented in Table 8.3.

Table 8.2 Highest and Lowest Rated Leadership Functions Across Focus Groups.

Leadership Functions	Junior Enlisted Soldiers	Non-Commissioned Officers
Highest-Rated	Provide Resources (A) Encourage Self-Management (A) Sensemaking (T)	Provide Resources (A) Establish Expectations/Goals (T) Challenge Team (A)
Lowest-Rated	Perform Team Tasks (A) Define Mission (T) Challenge Team (A)	Define Mission (T) Solve Problems (A) Compose Teams (T)

T=Transition Phase; A= Action Phase

Junior enlisted Soldiers rated their NCOs highest on *providing resources,* to include mission-related (e.g., equipment and machinery) and life sustainment (e.g., housing) resources during the action (deployment) phase. They also rated their NCOs high on *encouraging self-management* and stated that they were encouraged by their NCOs to manage themselves in solving their work-related problems and assessing how well they performed mission-related tasks. Junior enlisted Soldiers also rated their NCOs high on *sensemaking* and generally commented on how they felt that their NCOs did a good job of helping them understand changes impacting their mission (e.g., changing deployment dates and continuous changes in training during pre-deployment).

Junior enlisted Soldiers rated their NCOs lowest on *performing team tasks* and commented during interviews that their NCOs did not help them finish mission-related tasks and that the only time their NCOs were present was to criticize Soldiers in front of their peers for doing a poor or incompetent job. Junior enlisted Soldiers rated their NCOs low on *defining the mission* and expressed concerns about how well their NCOs ensured their team understood the mission and what they were to accomplish upon arrival in theater. It is interesting to note that junior enlisted Soldiers rated their NCOs very low on *challenging the team*, whereas NCOs rated their senior NCOs and junior Officers very high on this item. Junior enlisted Soldiers felt that their NCOs were inflexible and unwilling to consider new approaches to accomplishing tasks or to listen to the Soldiers' ideas about ways to improve performance on mission-related tasks.

Table 8.3: Junior Enlisted Soldier and NCO Focus Group Ratings (Red, Amber, Green) of Team Leadership Functions by Phase

Transition Phase			*Action Phase*		
Function:	**Rating**		***Function:***	**Rating**	
	E1-E4	**E5-E8**		**E1-E4**	**E5-E8**
Compose Team:	Amber	[illegible]	***Monitor Team:***	Amber	[illegible]
Define Mission:	[illegible]	[illegible]	***Manage Team Boundaries***	Amber	Amber
Establish Expectations and Goals:	Amber	Amber/Green	***Challenge Team:***	Amber	Amber
Structure and Plan:	Amber	Amber	***Perform Team Task:***	[illegible]	Amber
Train and Develop Team:	Amber	Amber	***Solve Problems:***	Amber	[illegible]
Sensemaking:	Amber	Amber	***Provide Resources:***	[illegible]	Amber/Green
Provide Feedback:	Amber	Amber	***Encourage Self-Management:***	Amber/Green	Amber
			Social Support Climate:	Amber	Amber

NCOs rated their leadership highest on *providing resources*, to include mission-related (e.g., equipment and machinery) and life sustainment (e.g., housing) resources during the action (deployment) phase. NCOs rated their senior NCOs and junior Officers high on *establishing expectations and goals* and often stated during focus groups that their leadership did a very good job of communicating clear standards that should be followed upon deployment. In addition, NCOs rated their senior NCOs and junior Officers high on *challenging the team.* NCOs commented during interviews that they thought their leaders were strong in suggesting new ways to perform mission-related tasks and in contributing ideas on how to improve performance on an existing task.

NCOs rated their leadership lowest on *defining the mission* during the transition (pre-deployment) phase and expressed concerns about how well leadership ensured that their team understood their mission and what they were to accomplish upon arrival in theater. NCOs also rated senior NCOs and junior Officers low in the area of *problem solving*. They remarked during focus groups that they felt that their leadership neither sought out multiple perspectives on how to perform mission-related tasks nor were they willing to help the team develop solutions to mission-related problems. Finally, NCOs rated their senior NCOs and junior Officers very low in their ability to *compose teams* during pre-deployment and commented that leadership failed to bring together the right team to accomplish their mission upon deployment.

The J-MHAT 7 survey data supports the linkage between perceptions of leadership functions, resilience factors, and psychological well-being. For example, Soldiers were asked whether or not "you are doing what you expected based on your pre-mission training?" as a reflection of the leadership function "*define mission.*" The sample-adjusted percent of junior enlisted Soldiers in theater for 9 months with average levels of combat exposure (n=13.38) who answered "Yes" to this question were significantly less likely to meet the screening criteria for depression and anxiety, had significantly higher individual and unit morale, and significantly less anger than those who answered "No." In contrast, Soldiers were asked to think about their experiences on this deployment and to rate "how much trouble or concern they were caused by not having the right equipment or repair parts?" as a reflection of the leadership function "*provide resources.*" Soldiers who reported very low/low concerns were significantly less likely to meet the criteria for acute stress, depression, or anxiety, had significantly higher personal and unit morale, and significantly less anger than their counterparts.

8.3 Themes Emerging from Focus Groups

It is also instructive to examine comments that were made during the focus group interviews. Sample comments from junior enlisted Soldiers and NCOs who rated leadership functions in the red zone versus those in the green zone are presented in the grey boxes on the pages that follow.

Compose Teams:

Red Zone: Focus was on being stuck with the team you have and having no control over unit composition. Leadership was seen as being ineffective in dealing with this lack of control.

"The Army sent the Soldiers to us. We have the people that we've got. We had no control..."

"Leadership didn't have a game plan prior to deployment."

Green Zone: Focus was on having control over the composition of smaller teams to ensure proper mix exists to accomplish mission.

"We have a good platoon sergeant that knows how to mix Soldiers together, but it's often the luck of the draw on who you get in your platoon. Our platoon sergeant was able to weed out those who did not meet his expectations..."

"Leadership put Soldiers who had deployed before into the leadership role so they could show others what was expected of them."

Primary leadership task *is to select a cohort of individuals who will be successful in accomplishing the mission and ensuring the mix is right over time as they develop and the environment changes.*

Define Mission:

Red Zone: Focus was on the lack of consistent information regarding mission, ambiguity, and change. NCOs felt that they had little influence in getting clarification from leadership on details. This lack of clarification was passed on to junior enlisted who felt like they did not understand the purpose of their upcoming deployment.

"Leaving home station, we didn't have a clue what we were going to do here. Mission set has changed 6 times since in country...be flexible, but not THAT flexible! We are mission jumping constantly."

"Leadership prior to deployment didn't give any understanding of our mission and what we would be accomplishing."

Green Zone: Focus was on getting timely information about mission and as clear a picture as possible to share with all members of the team. NCOs sought clarification if the picture was ambiguous.

"Platoon SGT set up a slide show showing us what our mission would be, what to expect once we got here and how what we would be doing was going to benefit the war effort....There is always a much bigger picture that we don't always see."

Primary leadership task *is to make sure that the team's mission is clear, compelling, challenging, and shared among all team members...*

Establishing Expectations and Goals:

Red Zone: Focus was on double standards, lack of consistency in the enforcement of Army standards, and expectations that kept changing. Junior enlisted saw this lack of consistency as a failure by NCOs to communicate clearly the standards of conduct and performance.

"Goals/standards are ridiculous...you can't meet them if they keep changing. Doing the right thing here is wrong."

"There was no guidance from leadership on the goal of specific missions."

Green Zone: Focus was on high standards of conduct and performance. NCOs felt empowered to enforce them universally. Junior enlisted understood that their goal was to uphold these high standards.

"There are standards of discipline, it is expected and enforced. Maybe a bit more with the Joes, but we all went through it (laughter)...we know what the standards are and we live them."

"...good training, good expectations, good leadership..."

Primary leadership task *involves establishing performance expectations and setting team goals...setting challenging yet realistic goals and clear expectations aids in accomplishing mission.*

Structure and Plan:

Red Zone: Focus was on the lack of defined roles and functions, the inability of team members to provide meaningful input, and continual changes in missions.

"Role? I don't know if I am a platoon sergeant, squad leader, or team leader... I still don't know my role and we are 58 days out from coming home."

"No feedback was allowed to be given as to how to improve the SOPs."

"...you had 3 different SOPs coming from 4 different people..."

Green Zone: Focus was on effective communication and the ability to provide input to leaders on how they would work as a team to accomplish the mission. Junior enlisted saw their NCOs as having a clear understanding of what was needed during pre-deployment in regards to equipment and SOPs.

"Experienced, great guys...we take advice from each other. Everyone has input. Set the SOP standards that everyone else borrows."

"Leadership took the SOPs that were used in OIF and adapted them to OEF. Some of the best SOPs I have ever seen."

Primary leadership task *involves determining how work will be accomplished, who will do particular aspects of the work, and when it will be done...*

Train and Develop Team:

Red Zone: Focus was on the lack of counseling and mentorship, fear of ridicule, and having to learn as you go.

"Any training we got was from other enlisted Soldiers...Soldiers who had deployed before were training other Soldiers in most cases. If you didn't know how to do something the senior NCOs would make fun of you in front of the other Soldiers."

"Leadership is not involved in mentoring the Soldiers."

"...if you were one of the Sergeant's favorites, then you would get all the training and hands-on mentoring..."

Green Zone: Focus was on creating a safe environment to coach, mentor and develop junior enlisted Soldiers to step into future roles. Junior enlisted Soldiers were encouraged to mentor new team members.

"Our Platoon Sergeant is tactically the best that we have ever seen...he is constantly teaching us new sh-t. "

"Mentorship is key. We drill...really good section. Mentorship is alive and well."

"Our team leader was great...he was always willing to share information and talk to us..."

Primary leadership task *involves ensuring that each team member has the KSAs required to effectively execute their role and developing the team in terms of team work, developing trust, and building cohesion.*

Sensemaking:

Red Zone: Focus was on broken lines of communication and feeling stifled when trying to seek clarification...NCOs felt that they had no ability to make sense of information for their Joes.

"Info comes down, but we don't have a good understanding of it, but then we have to take it, try to make sense of it, and try to give it to our Joes. I know it doesn't make sense to them."

"We had a large white board in the TOC for the purpose of writing down changes to the mission but the NCO wouldn't use it ...instead he would keep the changes to himself."

Green Zone: Focus was on communication and on actively getting as many details as possible to help understand what the impact would be on the team. Junior enlisted felt that their NCOs had done a great job of dealing with an ever changing environment.

"Part of it is you need to get the information when we need it. We are not afraid to take it up the chain to get the information we need."

"Once they [leadership] knew the situation, they would tell us. They made sure that there was no confusion."

Primary leadership task *involves facilitating an understanding of the meaning and impact of events on team functioning and managing how the team thinks about internal or external events or experiences...*

Provide Feedback:

Red Zone: Focus was on getting corrected when things went wrong, especially if there was visibility on the metric to higher ups.

"You never get positive feedback, but you will get an -ss-chewing if you screw up...They tell you what is not going to work."

"There is no feedback at all from leadership."

"Our platoon sergeant usually tells us that 'You guys are s**t bags for making me look bad'..."

Green Zone: Focus was on providing negative feedback quickly to address issues in a way that did not belittle team members. Negative feedback was done one-on-one a majority of the time while positive feedback was provided in public.

"We all have our own ways, but they are very effective...everyone has their own style in providing feedback...you play to the strength of each team member."

"If you did something wrong, it was taken care of quickly which really sucked while it was happening but it made you a better Soldier in the end."

Primary leadership task *involves enabling the team to effectively assess its past and current performance and then adapt as needed to ensure future success.*

Monitor Team:

Red Zone: Focus was on leadership trying to look good to higher ups...monitoring occurs, but only on issues that reflect on the leaders.

"Leadership was never NOT breathing down my neck...poor planning on many issues."

"They use any sign of error to belittle you...focus is on failure to make themselves look better. Cruise control once we got here...it is not a problem until it is a catastrophe."

Green Zone: Focus was on trusting teams and empowering them to do their jobs. Feedback provided upward and downward as needed.

"They don't really monitor individuals...they trust our SMEs. We've earned credibility. They monitor team productivity to be able to answer to higher ups and always have eyes on the environment for changes that impact us."

"Us [junior enlisted] and the NCOs talk like we are one big family so nobody hides anything from anyone."

Primary leadership task *involves monitoring and evaluating a team's progress toward mission completion, resources available to them, their external environment, and team member performance.*

Manage Team Boundaries:

Red Zone: Focus was on leadership not sticking up for teams when needed; lack of support and cohesion in the team.

"Nobody advocates for us. They never listen to the experts...they don't listen to the people that know. But I go toe-to-toe with them. I have to serve as the advocate. I get the blame though for everything that could go wrong."

"Leadership is giving us [junior enlisted] no support. They let themselves be walked all over."

Green Zone: Focus was on trusting leadership to filter the important from the trivial. Seem to trust their leadership to keep their best interest at heart.

"Commander served as our advocate for us just today. Platoon sergeant protects us and in turn we protect our Joes."

"SGT stuck his neck out because the convoy was all jacked up and was not ready to go. So, he said we weren't going to go..."

Primary leadership task *involves representing the team's interests in order to protect them from interference and to gain support for them when needed....coordinating activities with other teams.*

Challenge Team:

Red Zone: Focus was on leadership not wanting to contradict the challenges from above and not taking input from their team below.

"They want it done their way...You can throw out recommendations, but they [leadership] throw it back at you."

"They challenge us in unrealistic ways...good idea fairy."

"Leadership isn't teaching you how to fish, but instead they are just giving you a fish."

Green Zone: Focus was on mutual respect and on improving effectiveness as a team. NCOs teach junior enlisted to think about what to do if leadership is lost.

"Platoon Sergeant is tactically excellent. Even with mandated things, we'll do it that [prescribed] way...but, if someone recommends something that is both tactical and practical and it makes sense, he will say to go for it."

"Leadership is doing an excellent job at letting Soldiers [junior enlisted] do their own stuff."

Primary leadership task *involves challenging the team's task performance and confronting their assumptions, methods, and processes in order to find the best ways to accomplish their mission.*

Perform Team Task:

Red Zone: Focus was on double standards in terms of mission accomplishment, with leaders not pitching in to help get work done.

"They are not engaged and have no concept about what is going on out there. They just don't get involved..."

"Hell no they aren't pitching in and rolling up their sleeves! Is there a black rating?!"

"He [NCO] will send us to work while he stays back and watches TV."

Green Zone: Focus was on cooperation and mission accomplishment. Teamwork.

"Leadership team want to learn all aspects of the job...even driving the forklift. They all pitch in and help get the job done. They understand that the job must get done, even when we are not here."

"They are really great at knocking mission related things out with us."

"CO and 1SG are out there 2-3 times per week...they will help us with the task, which builds teamwork."

Primary leadership task *involves executing tasks within the team, taking personal responsibility for finishing team tasks, and assisting other team members with task completion.*

Solve Problems:

Red Zone: Focus was on being told how to solve problems without consulting with members of the team...no discussion or buy in, with team members often put at risk.

"They dictate methodology, don't innovate, and don't let others innovate either. Appearance means more than anything..."

"There is one solution and it's his solution."

"It's their way or the highway."

Green Zone: Focus was on the team concept, trusting SMEs, and the tactical proficiency of leaders.

"My leaders actively seek input and listen to the team concept. Sometimes they will go with our ideas, sometimes they tweak it, and sometimes they go with their own experience."

"Leadership will ask everyone's opinion and then determine the best solution."

Primary leadership task *involves diagnosing and solving problems that prevent teams from realizing their potential... problem-solving directed at creating solutions that advance team goals.*

Provide Resources:

Red Zone: Focus was on putting Soldiers at unnecessary risk when asked to pull missions that they were not equipped to execute.

"...we had a hole that needed to be explored... we are taught not to go in unless you can go straight in...or the sides might collapse on you. They wanted us to go in anyway..."

"You want to throw 20 people into a 10 man tent and have us live like that for the past 9 months...REALLY!?"

Green Zone: Focus was on having the right materials, personnel, and information to get the job done. Selflessly providing for their Soldiers.

"They get us what we need when they can get it...they got us bigger rooms so we don't have to bunk up...They will even give you their own stuff and often make sure that they bring extra stuff along in case one of us needs something."

Primary leadership task *involves taking action to secure and provide informational, financial, material, and personnel resources to accomplish the team's mission.*

Encourage Team Self-Management:

Red Zone: Focus was on one of two extremes: micromanagement or lack of guidance.

"They tell us to do it ourselves all the time...It's frustrating that when we do it ourselves they then come back and get mad at us because we didn't do it their way even though they didn't tell us how they wanted it done."

Green Zone: Focus was on developing teams to think for themselves and develop leaders.

"Leadership will ask us what we need for a mission, but won't tell us ...It forces us into the mindset of thinking about what we need... keeps us on our toes...we are a step ahead of other platoons because of our leadership."

"Leadership relies on us to know our jobs...They trust our judgment on things that we have expertise in."

"Leadership encourages us to be independent...to develop our own SOPs."

Primary leadership task *involves encouraging team members to resolve task and teamwork related problems themselves instead of seeking outside help encourages adaptability and resilience.*

Social Support Climate:

Red Zone: Focus was on taking care of oneself before taking care of Soldiers. No compassion, welfare of Soldiers is more an afterthought.

"Leaders don't care unless something happens to make them look bad."

"All my guys are hurt. No one cares. A guy with fractured foot is still going out on missions."

"We survived a crash and all the NCO wanted to know was when we were going to be back to work..."

Green Zone: Focus was on compassionate, caring leaders who put their Soldiers first.

"Platoon sergeant is amazing. He knows everyone's middle name and social security number by heart. He knows everyone's family's names. Commander is getting to the point where he knows everyone's names too. Tight team."

"1SG looks in on the Soldiers as much as he can...he will pop into the barracks to check on us. He treats everyone with respect."

"When advice is needed, our NCO gives it to us."

Primary leadership task *involves engaging in caring actions that validate team members and their individual needs and concerns...*

Several leadership characteristics that emerged as being important to junior enlisted Soldiers and NCOs based on the focus group comments are presented below. Groups that rated leadership functions in the red zone typically reported leaders who lacked these characteristics, whereas groups that rated leadership functions in the green zone typically reported leaders who demonstrated these characteristics.

- **Leader competence/tactical proficiency:** Soldiers and NCOs valued competent leaders who were tactically proficient and would not subject them to unnecessary risk. Leadership functions where these comments emerged included: Compose Teams, Establishing Expectations and Goals, Manage Team Boundaries, Challenge Team, and Solve Problems.

- **Advocacy:** Soldiers and NCOs both wanted leadership that had the moral courage to stick up for them. Leadership functions where these comments emerged included: Compose Teams, Provide Feedback, Manage Team Boundaries, Challenge Team, and Provide Resources.

- **Communication:** Soldiers and NCOs wanted to have information relayed to them that was clear, concise, and relevant. Leadership functions where these comments emerged included: Define Mission, Establishing Expectations and Goals, Structure and Plan, Sensemaking, and Monitor Teams.

- **Self-serving:** Soldiers and NCOs did not appreciate leaders who were self-serving or maintained double-standards. They felt that bullets on an NCOER/OER or missions in search of CABs put Soldiers at unnecessary risk. Leadership functions where these comments emerged included: Establishing Expectations and Goals, Perform Team Tasks, Provide Resources, and Social Support Climate.

- **Compassion:** Soldiers and NCOs wanted to know that their leaders cared and would look out for them when needed. That their leaders would take care of their Soldiers before taking care of themselves. Leadership functions where these comments

emerged included: Manage Team Boundaries, Provide Resources and Social Support Climate.

While most would consider the characteristics of leadership above as obvious, data from our focus groups show that they are not always applied. Focus groups that perceived their leadership as falling into the green zone appeared to have these needs fulfilled, whereas those groups who fell into the red zone did not. The specific aspects of leadership that lead to more resilient Soldiers need to be explored further in an effort to develop stronger leaders, higher morale, and more cohesive units. The five leadership characteristics above could serve as a starting point to form the basis for Officer and NCO Professional Development; thus reminding leaders of the value that Soldiers place in these characteristics.

9. SOLDIER REPORT: DISCUSSION AND RECOMMENDATIONS

9.1 Overview of Findings

Results from J-MHAT 7 detail the complexity of the behavioral health picture among maneuver units in Afghanistan in 2010. Specifically, the results illustrate that there is no simple theme that completely describes the behavioral health status of Soldiers in Afghanistan. It is noteworthy that ratings of acute stress are higher in 2010 than in any other year except 2007 (a year with a small sample size), and that ratings of individual morale have significantly declined since 2009. The behavioral health status results indicate a force under strain. However, to make sense of the behavioral health data, it is helpful to examine reports of combat exposure and rates of psychological problems within a historical context.

9.1.1 *Intense Combat Activity.*

Analyses of 2010 data reveal a dramatic increase in the levels of combat activity experienced by Soldiers. Reported levels of combat experience are significantly higher than levels reported at any other period (2005, 2007 or 2009). Across the time span from 2005 to 2010, OEF MHATs have detected two major increases in combat activity – the first between 2005 and 2007, and the second between 2009 and 2010 (see Figures 6.1 and 6.1.1). The reported increase in combat exposure between 2009 and 2010 is particularly noteworthy because an identical sampling plan was used across the last two years reducing the probability that the observed changes were caused by differences in the sampled populations. The results quantify the degree to which combat intensity has increased within the last year.

In considering rates of combat exposures, it is valuable to consider historical data from other contexts in addition to the data collected in OEF. The rates of exposure to key combat experiences reported in 2010 are not only elevated in terms of previous years of OEF, but they are also elevated in terms of Soldiers' experiences in Operation Iraqi Freedom (OIF). For instance, the MHAT IV OIF report shows that in 2006, 59.3% of the respondents reported experiencing a member of their unit becoming a casualty. The value of 59.3% was the highest reported rate collected in OIF, but is well below the 73.4% endorsement rate in OEF in 2010. Perhaps even more dramatic is the fact that the highest endorsement rate for being directly responsible for the death of an enemy combatant in OIF was 15% (reported in 2006). The rate among maneuver unit Soldiers for the same item in 2010 in Afghanistan is 48.4%.

It is possible that the random sampling of maneuver unit platoons implemented in 2009 is partially responsible for the increase and that if an identical sampling plan had been implemented in 2006 in OIF, the numbers would have been more comparable. Even so, it is striking just how much higher the rates in OEF in 2010 are than in any other dataset collected as part of the MHAT.

The rates of Soldiers reporting exposure to concussive events is also worth mentioning in terms of absolute values. The response to items reported in J-MHAT 7 referencing concussive events were not asked in previous years, so it is impossible to compare this year's responses to those from other MHATs; nonetheless, the raw percentages are revealing. As noted in Figure 5.4, over 50% of the Soldiers reported being dismounted and within 50 meters of a blast at least once. This number is almost certainly an underestimate of the percent of Soldiers that will experience exposure to blast in a full 12 month tour.

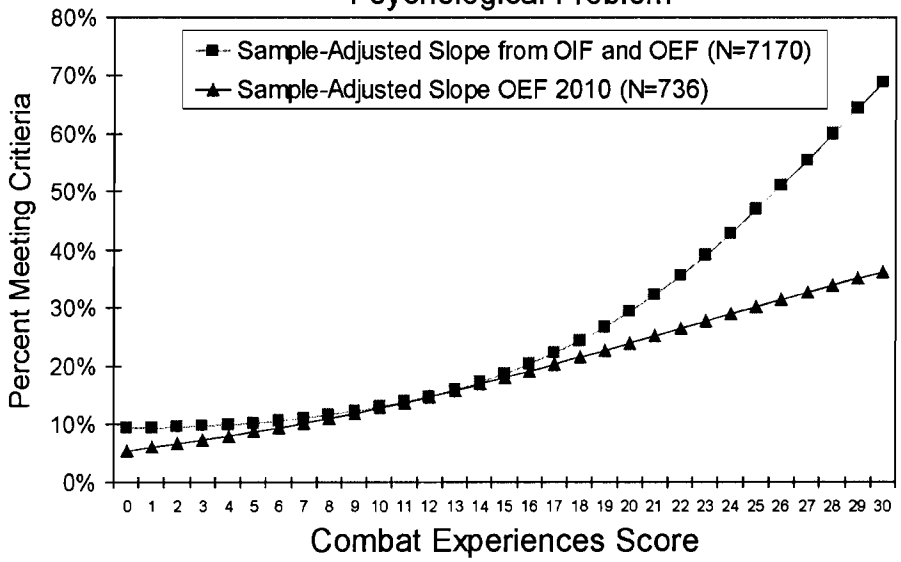
9.1.2 *Psychological Impact*

Psychologically, it is hard to imagine that these elevated levels of combat are not taking a toll on Soldiers. Reports of acute stress symptoms among Soldiers surveyed in 2010 have significantly increased and reports of individual morale have significantly decreased relative to 2009. When one looks at the contextual factors surrounding the deployment in the ATO in 2010 – Soldier reports of high levels of combat and high percentages of concussive events – one might reasonably expect higher rates of behavioral health issues to emerge than are being reported.

The nature of survey-based studies such as MHAT makes it difficult, if not impossible, to definitively pin-point the origin of resilience within units or even to definitively state that the units are resilient. Stated another way, we have no way of knowing whether another group of Soldiers exposed to the exact same set of circumstances would display higher or lower well-being. Nonetheless, while we cannot provide definitive evidence that this is a resilient force, we can provide suggestive empirical evidence supporting the idea that maneuver units deployed to OEF in 2010 are showing evidence of resilience.

The evidence of resilience comes from examining Soldiers' reactions to combat experiences in 2010 relative to the expected reactions from the cumulative information from thousands of surveys collected across the MHAT process. The brown squares in Figure 9.1.2 show the relationship between responses on the combat experiences scale and the percent reporting mental health problems across data collected in both OIF and OEF from 2004 to 2009 (MHAT II to MHAT VI). The large sample (N=7,170) provides a stable estimate of the relationship. Notice that the relationship is non-linear such that there is little change in predicted values of psychological problems for low values, but a sharp increase around 19 combat experiences.

Figure 9.1.2: Combat Experiences and Any Psychological Problem



Statistically, a resilient force or a resilient unit would be one whose curve differs significantly from the expected population curve such that rates are lower than expected (see also Adler, et al., 2009). A non-resilient unit would also have a curve that differed from the population, but this curve would exceed (or lie above) the population estimate. The curve for the maneuver unit

Soldiers in 2010 (black triangles) mirrors the expected population curve for low to moderate combat exposure; however, under conditions of high exposure the 2010 sample appears to show resilience in terms of being less reactive to combat exposure. Importantly, the difference between curves is statistically significant suggesting that there is 95% probability that the curve for Soldiers sampled in 2010 differs from the curve of the 7,170 other MHAT respondents. The ability to detect this difference is all the more noteworthy because it can be difficult to detect resilience even in cases where there are randomized interventions designed to build resilience (Bliese, Adler & Castro, 2011).

9.1.3 *Factors Leading to Resilience*

The nature of the data collected in the MHAT does not permit one to definitively pin-point a factor leading to resilience. Nonetheless, based on the literature we can identify several factors that may contribute to increased resilience. Specifically, the collective group of Soldiers surveyed in 2010 revealed the following resilience factors by reporting high ratings of NCO leadership, unit cohesion and perceived unit readiness. In addition, they report significant increases in the adequacy of pre-deployment training and fewer barriers to care. These factors tend to work in tandem, often due to leadership. For instance, in one focus group an E4 stated that "leadership took the Standard Operating Procedures (SOPs) that were used in OIF and adapted them to OEF...these were some of the best SOPs I have ever seen." In this case, leadership, readiness and training are highly inter-twined.

Barriers to Care. In 2009, MHAT reports from both OEF and OIF recommended adopting a dual-provider model for Brigade Combat Teams (BCTs). Previous MHATs recognized that high troop dispersion and difficult travel circumstances made it virtually impossible for a single Behavioral Health Officer to provide adequate coverage for a BCT. This dual-provider model has been officially adopted and has resulted in a change in the MTOE of the BCT; however, the initial changes will not occur until 2012 with full implementation across all Brigades (not just BCTs) expected in 2017.

In 2010 in OEF, in-theater efforts have been made towards implementing this dual provider model by using assets from larger Combat Operational Stress Control (COSC) teams to augment BCT providers. Our impression is that this model appears to be working well, and provides enhanced coverage of highly dispersed Soldiers. For instance, one of the Army BCTs has done an excellent job integrating an Air Force provider and enlisted behavioral health technicians as core members of the BCT behavioral healthcare system. This model has provided the BCT with a necessary increase in manpower. The model also has the advantage of quickly integrating an Air Force provider and behavioral health tech who were able (within a matter of weeks) to become actively engaged in providing care.

Barriers to care will continue to be a challenge as long as troops are widely dispersed and travel in the ATO is so unreliable. In 2010, the large increase in providers has been offset by the significant increase in the number of hours Soldiers report being outside the FOB (see Table 4.1). Even so, from the Soldiers' perspective the increase in providers has reduced barriers to care. Barriers to care are still higher than would be found in model where troops were not highly dispersed. The solution, however, is not to call for another increase in BH personnel. It is our opinion that a staffing ratio of 1 BH personnel for every 700 to 800 Soldiers is adequate; rather, the issue is to continue to find ways to utilize these personnel such that Soldiers have repeated exposure to the assets and know who to contact when care is needed. Note that different services may need different staffing ratios depending upon their behavioral healthcare delivery models; therefore, we clarify that the ratio we propose is in support of the Army model.

The challenge of sustaining the overall staffing ratio and continuing support of the dual provider model will be related to the continued availability of tri-service MH personnel. It may prove difficult to maintain the current deployment pace as many career fields (such as psychiatry and psychology) are under strength and thus unable to supplement theater needs beyond what is currently being asked. The 2010 increase in MH staffing involved a large number of National Guard and Reserve assets (33.3% of MH survey respondents), but it is unclear if this level of contribution can be relied upon consistently over time. Given these caveats, we recommend:

Army Recommendation 1: Current recommendation is to continue a staffing ratio of between 1:700 and 1:800 to support delivery of care for highly dispersed Army units. Continue to monitor and adjust staffing ratio as related to need.

Army Recommendation 2: Continue to locally support implementing of the dual-provider model at the BCT level until the Army BCTs begin deploying with two providers and two behavioral health technicians (see status of MHAT VI recommendations).

Army Consideration 1: Consider augmenting behavioral health assets with master's level licensed professional counselors (e.g., Licensed Professional Counselors).

Unit and Leadership Resilience. Units deploying to Afghanistan in 2010 have engaged in a variety of resilience-based training programs to include the legacy programs such as Battlemind Training. In addition, several units are planning to send Soldiers to the Master Resilience Training offered by the University of Pennsylvania (Brunwasser et. al 2009) upon redeployment. In addition, training programs are being developed and provided in theater to include the One Shot-One Kill (OSOK) program that was developed (b)(3):10 USC 130(b) to enhance performance and develop resilience in a manner tailored for the Paratrooper community.

While the specific aspects of these programs may differ, there are two key underlying assumptions in many of these programs. First, the training assumes that resilience is a teachable trait. Second, there is interest in identifying leadership skills and leadership models that will be most effective in complex deployment situations. The importance of leadership is repeatedly identified as a predictor of well-being among MHAT surveys, and it is clear from the focus group results (Section 8) that small units differ in terms of the degree to which leadership provides a protective function (see also MHAT VI, OIF results).

The motivation to teach resilience and to consider alternative (and potentially more effective) leadership models reflects positively on the adaptability of the Army. Furthermore, it is likely that the willingness of specific BCT commanders to embrace various forms of training has produced positive results in terms of creating a more resilient fighting force. From a behavioral health perspective, however, the challenge is to design and conduct evidence-based studies that separate the core, effective components of these programs from the non-core, ineffective components. In this way, the successes of these programs can be generalized across the Army. It is equally important that energy and resources not be wasted in applying ineffective programs across the military.

Identifying effective programs is no small undertaking. It requires the discipline to conduct randomized trials or well-designed quasi-experimental studies because these trials are difficult to execute. For instance, in 2009 the Army funded a large study within a basic training environment to determine whether the core principles underlying sport psychology (e.g., goal setting, visualizing positive outcomes, avoiding negative thinking) could be shown to enhance performance. The study was supported by Comprehensive Solider Fitness (CSF) and executed by the Walter Reed Army Institute of Research (lead) and the Army Center for Enhanced Performance. The results of this controlled, randomized evaluation demonstrated that teaching sports' psychology principles lead to enhanced performance. As another example, Adler et al., (2009) report the results of a controlled, randomized trial showing that the principles of cognitive reframing can be used to help develop resilience among Soldiers returning from combat. Both studies had the core elements of well-designed research studies to include:

1. Randomization of units or individuals to the treatment or control condition
2. Use of active control groups to avoid having the experimental group perform better simply because they are being provided special treatment
3. Evaluation of important outcomes (behavioral health symptoms, objective performance measure), weeks or months after the intervention, while avoiding "satisfaction with training" as a key outcome measure
4. Determining whether training efficacy is related to specific trainers to ensure that efficacy is not based simply on having one or two very effective trainers

In sum, with the 2010 OEF we appear to have evidence that some of the resiliency measures used by commanders or even by the larger Army may be effective; however, we are in a unsatisfying position of **not** being able to identify which programs are producing these effects. Thus, the team recommends:

> Army Recommendation 3: Continue to support randomized trials and well-designed quasi-experimental studies both within and outside of the theater to provide evidence-based resilience solutions with a focus on (a) leadership training and (b) pre-deployment training modules.

9.2 Evaluating Support and Sustainment Units

The J-MHAT sampling plan of targeting maneuver-unit platoons provides a replicable, executable, and focused way to assess trends among war-fighters across years. However, as noted in section 2.2, one limitation is that maneuver units constitute less than 50% of the total deployed force. It is beyond the capability of the MHAT team to routinely assess both maneuver and support and sustainment Soldiers. As MHAT VI reported, the issues that impact support and sustainment Soldiers are important and differ to some degree from those that impact maneuver unit Soldiers. For this reason, the fourth recommendation of the J-MHAT 7 is:

> Army Recommendation 4: Support studies such as the Army Study to Assess Risk and Resilience in Service members (Army STARRS) which are designed to conduct longitudinal studies of support/sustainment and maneuver unit Soldiers.

10. MARINE REPORT: SAMPLE CHARACTERISTICS

To enhance the comparability of the MHAT IV (2006), MHAT V (2007), and J-MHAT 7 (2010) samples, only Marines directly engaged in combat activities were selected from the 2006 and 2007 cohorts. Table 10.1 provides details on selected demographic variables for the resulting MHAT IV, MHAT V, and J-MHAT 7 Marine maneuver samples. The three samples differ on several key demographic variables. Specifically, the J-MHAT 7 sample is younger, and has more junior enlisted service members and fewer NCOs than the other cohorts. The J-MHAT 7 and MHAT IV samples are similar regarding deployment history, but report more multiple deployments than members of the MHAT V sample.

The breakdown of dwell-time is also included from J-MHAT 7. Notice that the majority of those who had previously deployed had between 12 and 24 months of dwell-time. Indeed, the median dwell-time for those who had previously deployed was 21 months (not shown in Table 10.1). Finally, while members of the J-MHAT 7 cohort have spent less time overall in theater than the MHAT IV and MHAT V comparison groups, Marines in the 2010 sample have spent more time outside of the unit's main FOB than in previous years. Differences in time spent in theater and rank are controlled statistically in subsequent analyses to normalize the data.

Table 10.1: Demographic Comparison MHAT IV (2006) and MHAT V (2007) to J-MHAT 7

	OIF MHAT IV (2006)		OIF MHAT V (2007)		OEF J-MHAT 7 (2010)	
Demographic Variable	n	Percent	n	Percent	n	Percent
Age						
18-24	185	78.4%	365	81.8%	272	81.2%
25-29	32	13.6%	55	12.3%	55	16.4%
30-39	16	6.8%	23	5.2%	7	2.1%
39+	3	1.3%	3	0.7%	0	0.0%
Unknown	0	0.0%	0	0.0%	1	0.3%
Rank*						
E1-E4	187	79.2%	271	60.8%	288	86.0%
NCO	39	16.5%	117	26.2%	39	11.6%
Officer / WO	5	2.1%	47	10.5%	7	2.1%
Unknown	5	2.1%	11	2.5%	1	0.3%
New Rank For MHAT 7						
E1-E3	N/A		N/A		234	69.9%
E4	N/A		N/A		54	16.1%
NCO	N/A		N/A		39	11.6%
Officer / WO	N/A		N/A		7	2.1%
Unknown	N/A		N/A		1	0.3%
Component*						
Active	225	95.3%	436	97.8%	332	99.1%
Reserve	9	3.8%	3	0.7%	1	0.3%
Unknown/Other	2	0.8%	7	1.6%	2	0.6%
Marital Status						
Single	138	58.5%	297	66.6%	209	62.4%
Married	72	30.5%	118	26.5%	86	25.7%
Divorced	5	2.1%	8	1.8%	5	1.5%
Unknown/Widowed	21	8.9%	23	5.2%	35	10.4%
Deployment History*						
First Time	140	59.3%	302	67.7%	197	58.8%
Second Time	64	27.1%	120	26.9%	99	29.6%
Third or More	32	13.6%	24	5.4%	39	11.6%
Unknown	0	0.0%	0	0.0%	0	0.0%
Dwell-Time (+)						
Less than 12 Months	N/A		N/A		4	1.2%
12 to 24 Months	N/A		N/A		122	36.7%
More than 24 Months	N/A		N/A		22	6.6%
1st Deployment/Unknown	N/A		N/A		184	55.4%
Time in Theater*						
3 Months or Less	89	37.7%	144	32.3%	112	33.4%
4 to 6 Months	98	41.5%	172	38.6%	212	63.3%
More than 6 Months	28	11.9%	96	21.5%	0	0.0%
Unknown	21	8.9%	34	7.6%	11	3.3%
Days Outside FOB*						
15 or less	N/A		242	54.3%	68	20.3%
More than 15	N/A		175	39.2%	253	75.5%
Unknown	N/A		29	6.5%	14	4.2%

* Significantly Differed Across Years

11. MARINE REPORT: BEHAVIORAL HEALTH

Behavioral health indices provide an overview of the well-being of the deployed force. This section reviews a variety of measures and compares them to previous USMC MHAT data. The standard graph used in this section provides:

1. Across-year comparisons represent sample-adjusted maneuver unit values for MHAT IV, MHAT V, and J-MHAT 7. As noted in section 2.3.2, the MHAT IV and MHAT V Marine groups were surveyed in Iraq (OIF) in 2006 and 2007. Values are adjusted for rank and time in theater, and describe male E1-E4 Marines in theater for 4.5 months. Values that significantly differ from J-MHAT 7 values are underlined.

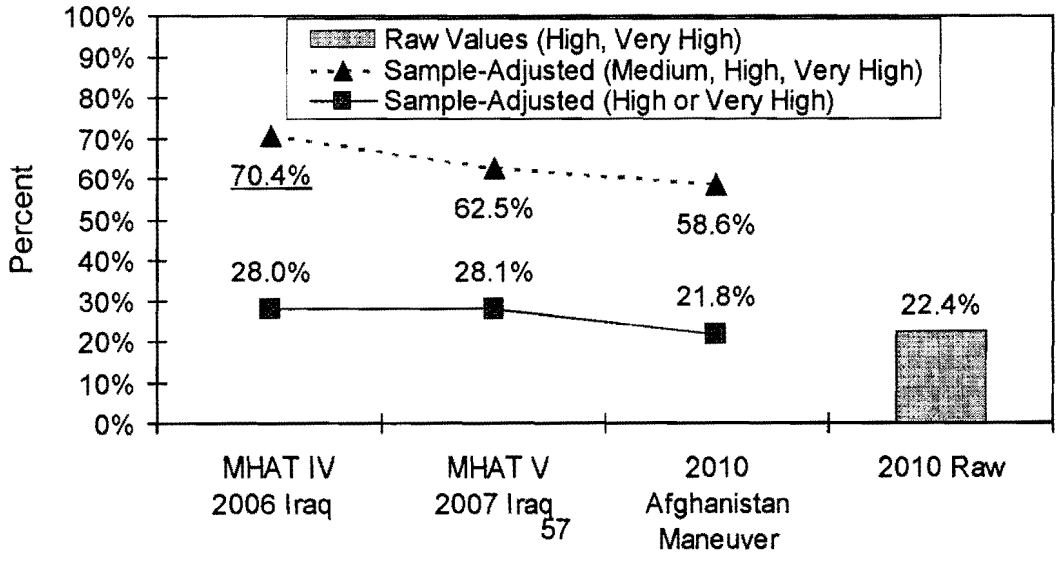
2. Raw 2010 values include responses from all survey participants, including NCOs and Officers. Thus, raw 2010 values sometimes differ from sample-adjusted maneuver unit values, which reflect only responses from male E1-E4 Marines, as described above.

11.1 Morale

11.1.1 *Individual Morale*

Figure 11.1.1 provides the sample-adjusted percent of E1-E4 Marines in theater for 4.5 months who reported high or very high individual morale (squares) and the percent who reported medium, high or very high morale (triangles). The percent of Marines reporting high or very high morale is not significantly different from either 2006 or 2007; however, there is a significant decline in the percent who report medium, high or very high morale in 2010 relative to 2006. In the figure, notice that the raw value for high or very high individual morale in 2010 is higher than the 2010 sample-adjusted value. This occurs because the raw value also includes NCOs and Officers who typically report higher morale than enlisted personnel.

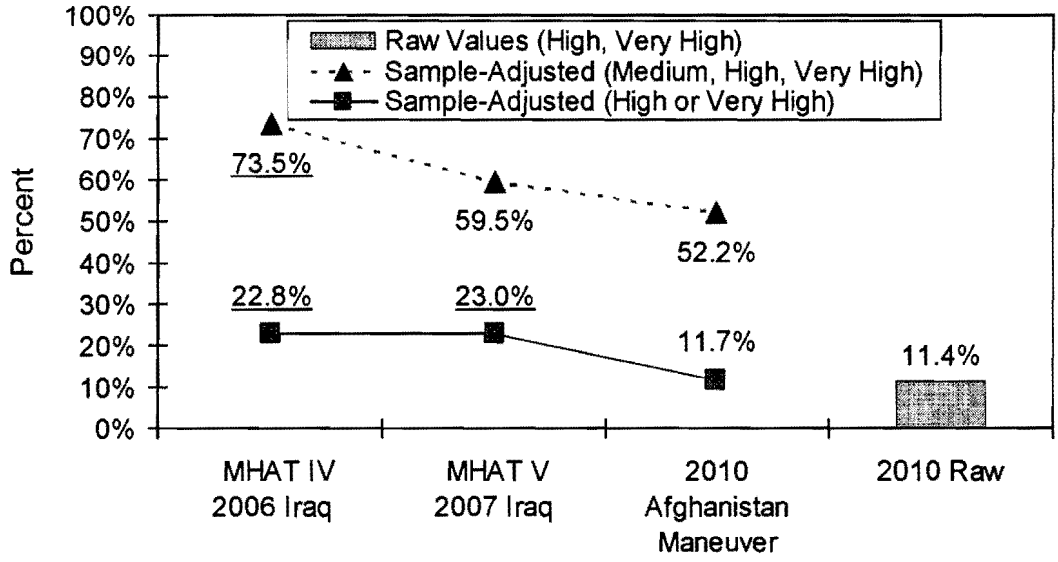
Figure 11.1.1: Individual Morale



11.1.2 *Unit Morale*

The sample-adjusted percent of Marines who rated unit morale high or very high (squares) is presented in Figure 11.1.2. The values for 2010 are significantly lower than previous years' ratings of unit morale. Similarly, the percent of Marines who reported medium, high, or very high morale in 2010 (triangles) is significantly lower than in 2006, but not significantly lower than in 2007.

Figure 11.1.2: Unit Morale



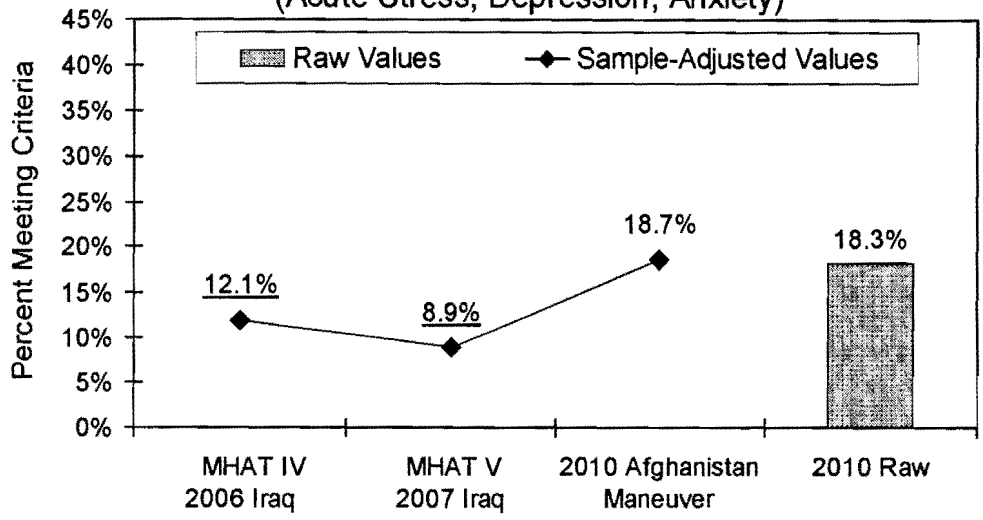
11.2 Behavioral Health: Acute Stress, Depression and Anxiety

Marines' ratings of depression, generalized anxiety and acute stress (i.e., Post-Traumatic Stress) were assessed using standardized, validated scales (Bliese, et al., 2008; Spitzer, Kroenke, & Williams, 1999; Weathers, Litz, Herman, Huska, & Keane, 1993). Details on scoring specific scales are available in previous MHAT reports.

11.2.1 *Behavioral Health: Any Psychological Problem*

The combined rating of any psychological problem (acute stress, depression or anxiety) is presented in Figure 11.2.1. The percent of Marines reporting one or more psychological problems in 2010 is significantly higher than in 2006 and 2007.

Figure 11.2.1: Any Psychological Problem
(Acute Stress, Depression, Anxiety)



11.2.2 *Acute Stress, Depression and Anxiety*

The specific values for acute stress, depression, and generalized anxiety are provided in Table 11.2.2. Acute stress values in 2010 are significantly higher than values reported in MHAT V (2007).

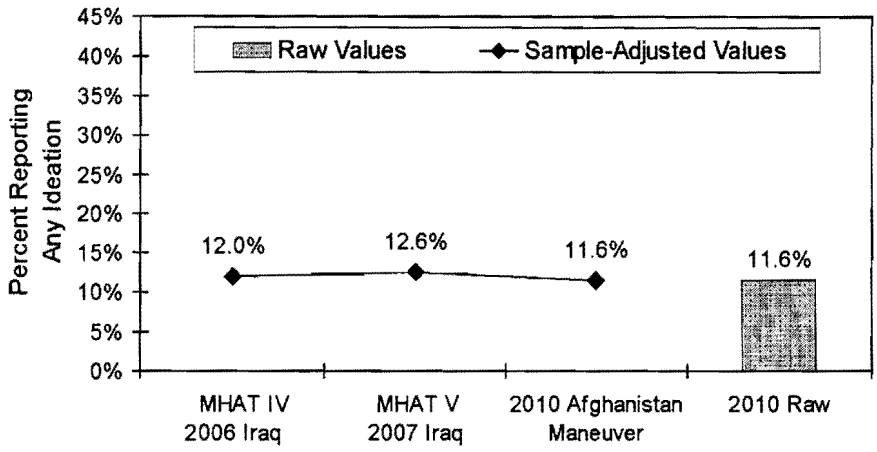
Table 11.2.2: Raw Values and Sample-Adjusted Percents for Male, E1-E4 Marines in Theater 4.5 Months

	Sample Adjusted MHAT Values			Raw Value
Mental Health Indicator	MHAT IV OIF 2006	MHAT V OIF 2007	J-MHAT 7 OEF 2010	OEF 2010
Acute Stress	12.1%	6.9%	16.9%	16.2%
Depression	3.3%	3.0%	3.4%	3.3%
Anxiety	3.6%	3.0%	4.2%	4.2%

11.3 Suicidal Ideation

Suicidal ideation is assessed using a single depression item on the J-MHAT 7 survey. This item (item 9 of the PHQ-D) asks Service Members if they have been bothered by thoughts that they would be better off dead, or of hurting themselves in some way over the last four weeks. For the purposes of this report, any response other than "Not at all" was considered a positive response. Figure 11.3 shows that rates of suicidal ideation remain fairly constant across the MHAT IV, MHAT V, and J-MHAT 7 Marine Corps samples.

Figure 11.3: Suicide Ideation



11.4 Interpersonal Adjustment and Work Functioning

11.4.1 *Interpersonal Adjustment*

Marines' ratings of interpersonal difficulties are reflected in several questions about anger directed towards others in the unit. The percent of Marines who report (a) shouting or yelling at others, (b) breaking inanimate objects, (c) threatening others with violence, and (d) getting into physical altercations at least once over the past 30 days is presented in Table 11.4.1. Compared to 2006, anger episodes occur much more frequently among Marines in the 2010 J-MHAT 7 sample. Verbal expressions of anger are also significantly higher in 2010 than in the 2007 MHAT V sample.

Table 11.4.1: Raw Values and Sample-Adjusted Percents for Male, E1-E4 Marines in Theater 4.5 Months

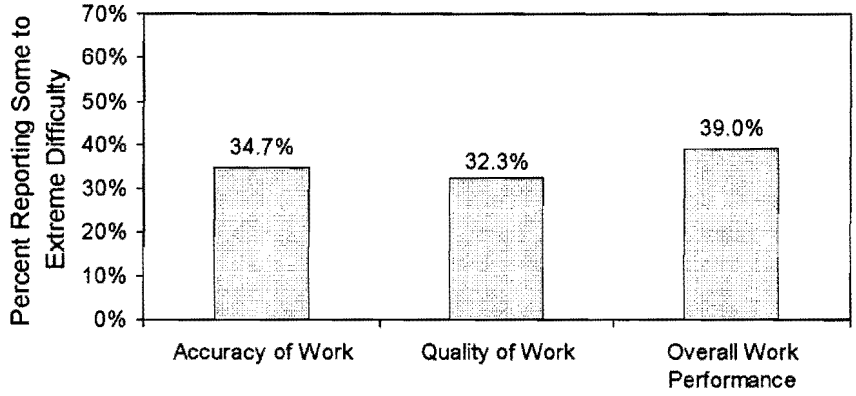
	Sample Adjusted MHAT Value for Percent Endorsing One or More Times			Raw Value
Survey Item	MHAT IV OIF 2006	MHAT V OIF 2007	J-MHAT 7 OEF 2010	OEF 2010
Get angry at someone in your unit and yell or shout at them	64.8%	69.0%	79.6%	74.3%
Get angry with someone in your unit and kick or smash something, slam the door, punch the wall, etc.	35.4%	44.5%	47.2%	41.4%
Threaten someone in your unit with physical violence	30.9%	38.1%	39.3%	35.4%
Get into a fight with someone in your unit and hit the person	9.0%	22.1%	17.5%	16.1%

11.4.2 *Work Performance*

Figure 11.4.2 presents the percent of Marines who reported at least some difficulty in the accuracy and quality of their work, as well as overall job performance. J-MHAT 7 is the first

time that questions about work performance were asked, so comparisons are not possible across years. Approximately one third of Marines surveyed in 2010 reported difficulties in performing their jobs accurately, and in a quality manner. Over one-third of respondents reported current difficulties in overall work performance.

Figure 11.4.2: Difficulties in Aspects of Current Work Performance



11.5 Concussion (mTBI)

Attachment 2 of Directive-Type Memorandum DTM 09-033 dated June 21, 2010 detailed four concussive-related events requiring mandatory evaluations and reporting of exposure:

a. Any Service member in a vehicle associated with a blast event, collision, or rollover
b. Any Service member within 50 meters of a blast (inside or outside).
c. A direct blow to the head **or** witnessed loss of consciousness.

Although the J-MHAT 7 survey was designed prior to the release of the Directive, the events requiring medical evaluations can be approximated by the following items:

21. How many times during this deployment were you inside a vehicle damaged by a blast? (0) 0 blast01 (1) 1 (2) 2 (3) 3 or more

22. How many times during this deployment were you within 50 meters of a blast explosion while dismounted? blast02 (0) 0 (1) 1 (2) 2 (3) 3 or more

23a. Did any injury during this deployment involve a blow or jolt to your head? (0) No (1) Yes headinj1

18. Did any injury you received during this deployment involve the following:
Losing consciousness (knocked out) (0) No (1) Yes dpinjnv10

In addition to the four items above that assess prevalence rates, the survey asked Marines whether they had been "evaluated by a medical professional for a TBI or concussion" using a Yes/No response option. Figure 11.5 provides the prevalence rates of each of the four events plus the prevalence rate of whether the respondent is required to receive a screen based on the Directive (TBI Screen Required). The total prevalence rate is divided into two subsamples – those that reported being evaluated and those that reported not being evaluated by a medical

professional. The table on the bottom of the graph provides the percent within each category that reported not being evaluated by a medical professional.

Figure 11.5: Concussive Events and Medical Screening

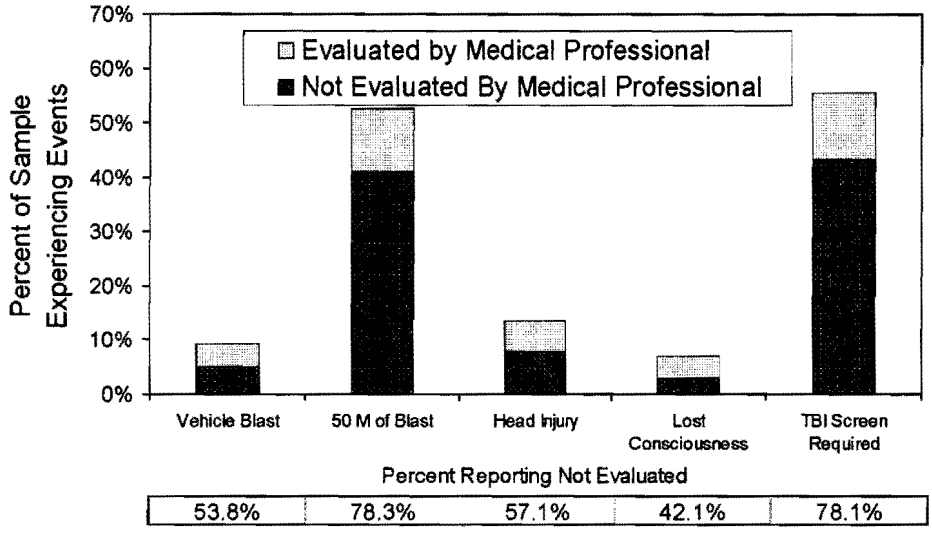


Figure 11.5 shows that the most commonly reported concussive event is being within 50M of a blast (52.5%) and that cumulatively 55.2% of respondents should have been screened based on the criteria from DTM 09-033. The figure clearly shows, however, that a low percentage of Marines reported receiving screens. It is important to note, however, that the data presented in Figure 11.5 were collected before DTM 09-033 was fully implemented. Furthermore, as discussed in section 5.4, it is likely that Marines do not view corpsmen as being "medical professionals" so they may be responding that they were not evaluated if the evaluation was conducted by their corpsman.

11.6 Pain Medications

J-MHAT 7 assessed Marines' use of pain medications using a chronic pain module developed by the Centers for Disease Control (CDC) that was added to the 2007 Kansas Behavioral Risk Factor Surveillance System. In total, 292 Marines provided responses to the question with 36% (n=105) reporting chronic pain. The vast majority of Marines who reported chronic pain either took no medications (57.1%) or took over-the-counter drugs (34.3%). However, only 5.7% (n=6) of the respondents in chronic pain reported taking prescription pain medication, with 4 of the 6 reporting that the medication was prescribed in theater.

As a point of reference, in a subsample of 180 randomly selected employed men between the ages of 18-34 with health insurance in the state of Kansas (Toblin et al., in press), 15.0% reported chronic pain. Of those with chronic pain, 48.1% were taking an over-the-counter or prescription medication, and 14.8% reported taking a prescription medication. With this as a referent group, it is clear that the reported rates of chronic pain are much higher in the Marine Corps sample (36% versus 15%, respectively); however, rates of prescription pain medication use among those taking medications for chronic pain is lower in the Marine Corps than in the random sample of men from Kansas (5.7% versus 14.8%, respectively).

11.7 Medications for Sleep and Mental Health Problems

In previous MHATs, Marines were asked "Have you taken any medication for a mental health, combat stress, or sleep problem during this deployment?" In MHAT IV (2006), 5.9% of Marines indicated that they had taken medication; in MHAT V (2007), 5.4% of Marines reported taking medications for mental health, stress, or sleep hygiene reasons.

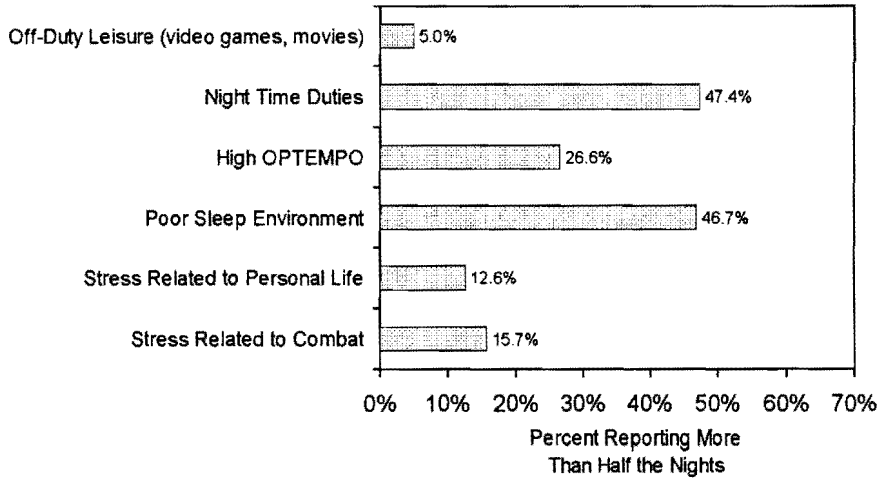
In J-MHAT 7 (2010), respondents were asked (1) Have you taken any medication for a sleep problem during this deployment and (2) Have you taken any medication for a mental health or combat stress problem during this deployment? In all, 7.1% of Marines in the 2010 sample reported taking medications for sleep problems. Only 1.6% reported taking medication for a mental health or combat stress problem in 2010.

As a point of reference, in interpreting the use of medications for mental health or combat stress, Olfson and Marcus (2009) report rates of antidepressant medication use from nationally representative probability samples collected in 1996 and 2005. Based on these data, the rate of antidepressant use for (a) 21-34 year old (b) males who were (c) employed with (d) health insurance was 2.28% in 1996 and 4.59% in 2005 (Olfson and Marcus: personal communication, 31 AUG 2010). Clearly the rate of 1.6% reported by Marines in 2010 is well-below the National estimates for this demographic group.

11.8 Sleep Problems

In interpreting the percent of Marines who report taking medications for sleep, it is valuable to consider the nature of the sleep environment in theater and the degree to which Marines reported sleep disturbance. Figure 11.8 presents the percent of Marines who reported that their sleep has been disturbed or interfered more than half of the last 30 nights by (a) stress related to combat, (b) stress related to personal life and problems, (c) a poor sleep environment (too noisy, bright, hot, cold), (d) high OPTEMPO, (e) nighttime duties and (f) off-duty leisure activities (video games, movies, etc.). Notice the high percent of Marines who report that their sleep is disturbed by the poor sleep environment and nighttime duties. J-MHAT 7 is the first time that questions about sleep disturbance were asked, so comparisons are not possible across years; however, section 12.5 notes that Marines' concerns about not getting enough sleep have significantly increased from 2006 and 2007 to 2010.

Figure 11.8: Sleep Problems During Last Month: "How Often Have the Following Interfered with Your Sleep?"



12. MARINE REPORT: RISK FACTORS

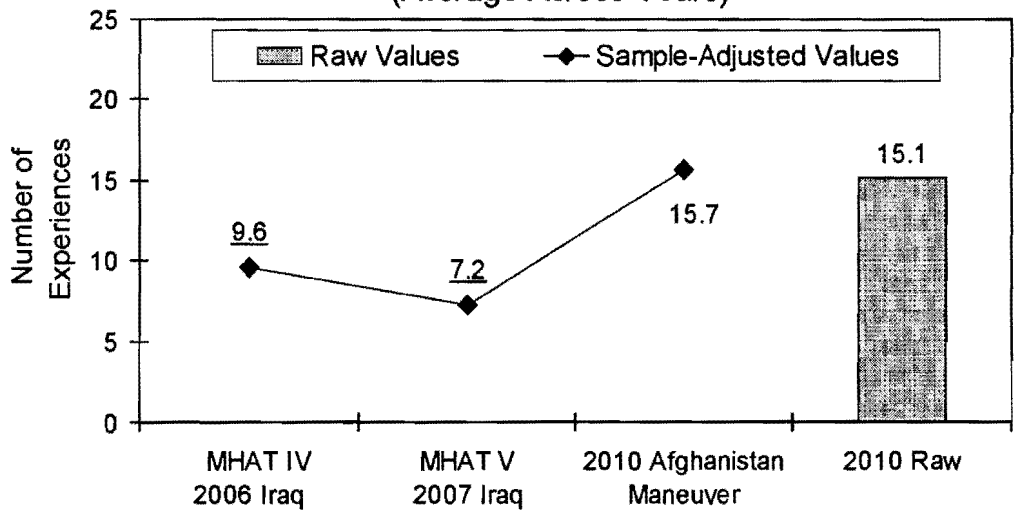
As noted in the conceptual model (section 3), it is convenient to classify service member risk factors into four broad categories: combat-related risk factors, relationship problems, OPTEMPO-related risk factors, and deployment concerns. Changes in behavioral health indices are presumably associated with changes in these four categories of risk factors.

12.1 Combat Experiences

Exposure to potentially traumatic experiences is one of the principal risk factors for behavioral health problems in combat settings (Fontana & Rosenheck, 1998). Thirty combat experience items have been consistently assessed across MHATs. A combat experience score indicating whether the Soldier experienced the item at least once provides an efficient way to summarize changes in combat experiences across years.

Figure 12.1 provides a comparison of the sample-adjusted mean number of combat experiences from 2006, 2007, and 2010. The levels of combat exposure reported by Marines in 2010 are significantly higher than any other year even when the statistical models adjust for differences in time-in-theater.

Figure 12.1: Total Combat Experiences
(Average Across Years)

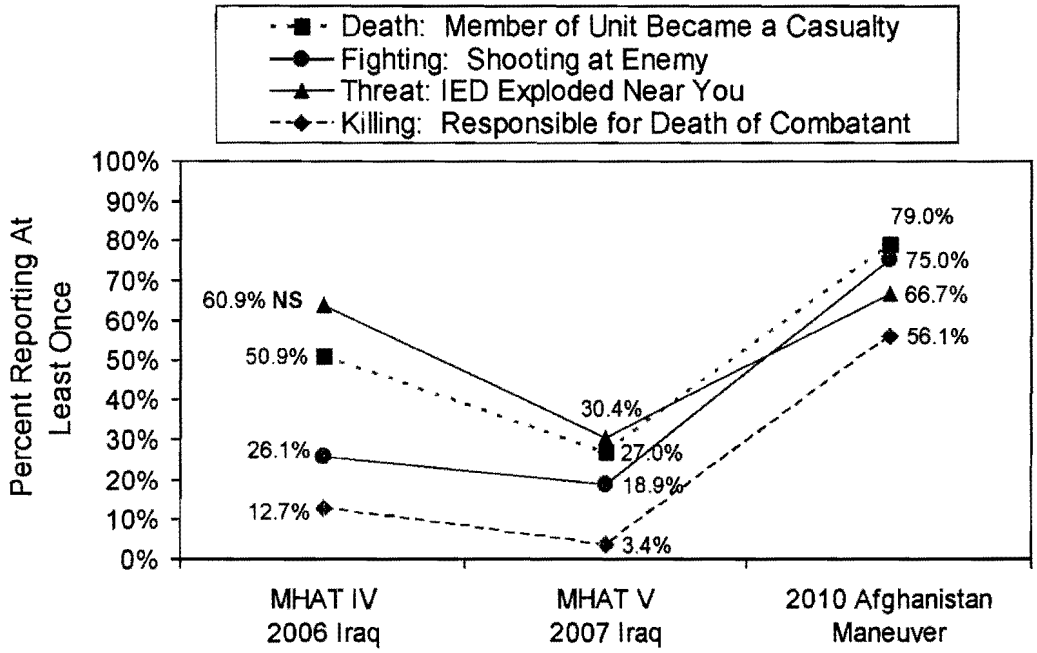


Researchers such as Fontana and Rosenheck (1998) have suggested that it is useful to categorize combat experiences into demand-related dimensions: Fighting, Killing, Threat to Oneself, Death/Injury of Others, and Atrocities. Wilk et al. (2010) show that combat items such as those asked in the MHAT survey can be reliably categorized into the five dimensions and that these dimensions are useful in terms of predicting behavioral health outcomes.

The 30 items assessed in the MHAT survey can be categorized into four of the five demand-related dimensions (Atrocities are not assessed). Figure 12.1.1 provides a representative item from each of the four dimensions across time. Analyses showed that the rates reported in 2010 are significantly higher than rates reported any other year with one exception: the rate for

experiencing an Improvised Explosive Device (IED) explosion in MHAT IV in 2006 (60.9%) does not statistically differ from the rate reported in J-MHAT 7 (66.7%).

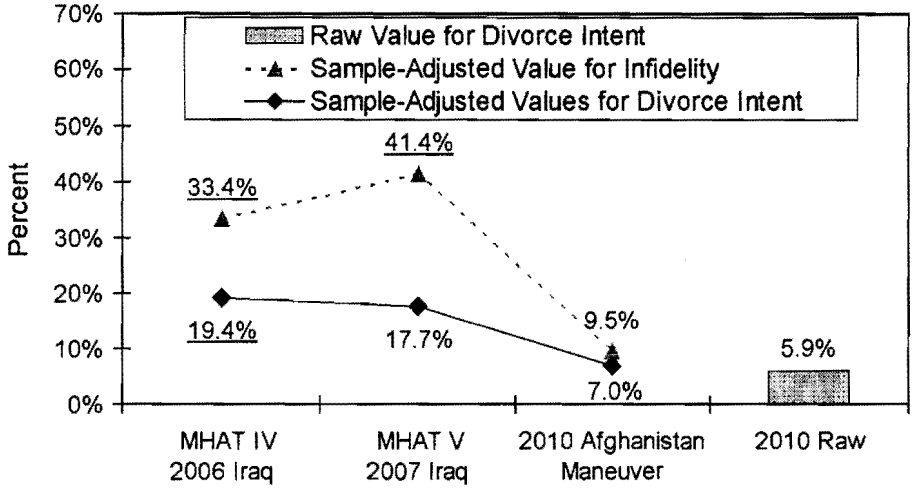
Figure 12.1.1: Representative Combat Experiences



12.2 Relationship Problems

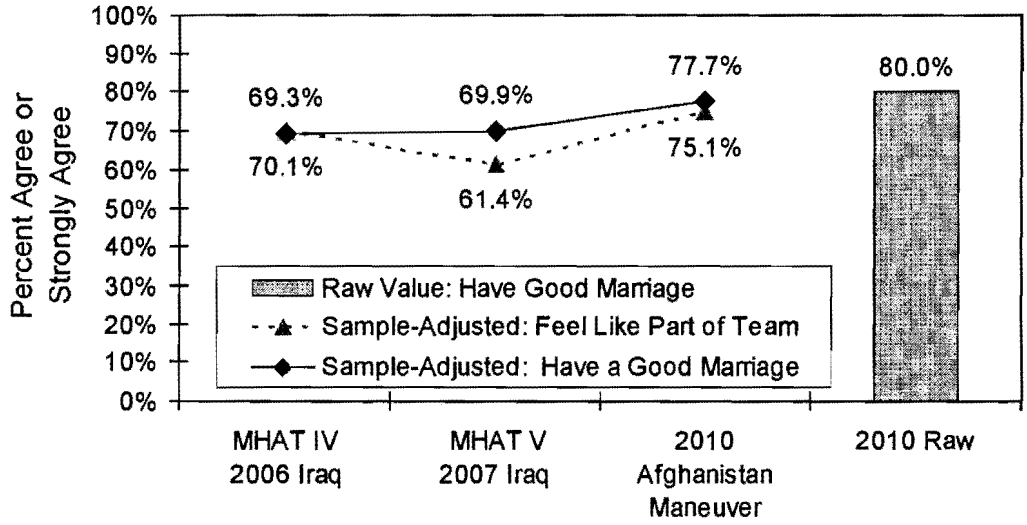
Relationship problems with spouses comprise a second major risk factor for a variety of behavioral health issues. Two straight-forward indices of relationship problems are (a) the percent of married Marines that are considering a divorce or separation and (b) the percent of Marines that endorse "yes" or "unsure" to the question of whether infidelity is a problem in their marriage. Figure 12.2 shows that the number of Marines planning divorce or separation in 2010 is statistically less than those in 2006. Likewise, concerns about infidelity were significantly lower among Marines in the J-MHAT 7 sample than Marines surveyed in MHAT IV and MHAT V. Note that the small sample sizes of married Marines makes these estimates less stable than estimates based on larger sample sizes, so the values may fluctuate considerably across years.

Figure 12.2: Planning Divorce / Separation
Infidelity a Problem or Unsure



Intent to divorce or separate and concern about infidelity are more extreme instances of marital relationship problems; consequently, they may not be as sensitive to changes as would less extreme questions about marital relationships. Figure 12.2.1 provides responses to two marital satisfaction items adapted from Norton (1983): (1) I have a good marriage, and (2) I really feel like a part of a team with my spouse. The figure shows that the percentage of E1-E4 Marines reporting positive marital satisfaction on these two items has not significantly changed since 2006.

Figure 12.2.1: Marital Satisfaction Items

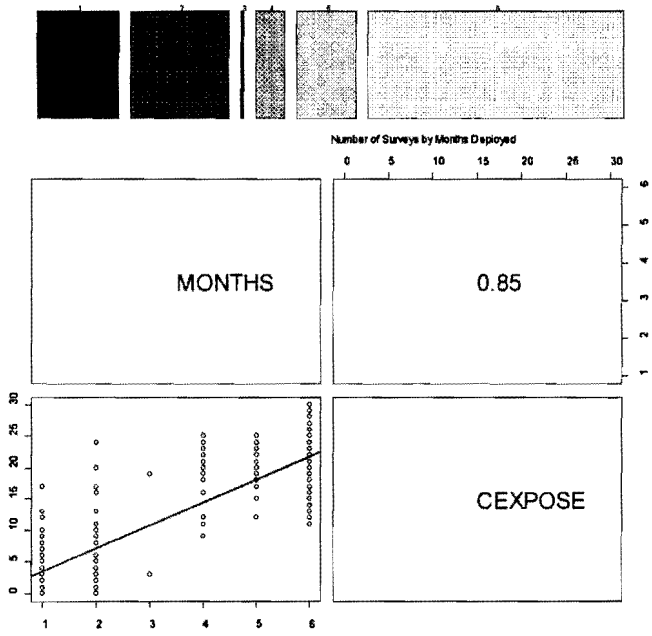


12.3 OPTEMPO Factors: Months Deployed

Previous Army MHAT reports have shown that months deployed are related to a variety of risk factors and behavioral health indices. For instance, the longer a Service Member has been in theater, the more likely he or she is to accumulate combat experiences. Figure 12.3 provides a

mosaic plot showing the number of months Marines have been in theater and a scatter-plot of the relationship between months in theater and combat exposure. Notice from the mosaic plot that the survey was completed by a large group of Marines that had been in theater for 6 months. The scatter-plot shows that the longer a Marine spends in theater, the greater the likelihood of accumulating combat experiences. Time in theater is also related to the likelihood of acute stress reactions (r=0.18, p=0.001) and to a lesser extent, suicidal thoughts (r=0.11, p=0.053). However, combat exposure is a stronger predictor of both acute stress (r=0.30, p=0.0001) and suicidal ideation (r=0.23, p=0.0001). As noted in section 2.3.2, months deployed is used as a predictor throughout the analyses to provide a means of estimating adjusted values as though respondents had been in theater 4.5 months.

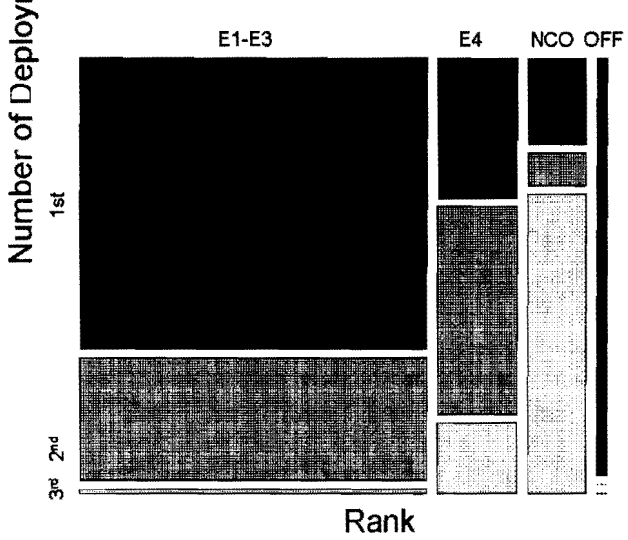
Figure 12.3: Mosaic Plots of Months Deployed and Correlation Between Months Deployed (MONTHS) and Combat Exposure (CEXPOSE)



12.4 OPTEMPO Factors: Multiple Deployments

Table 10.1 in section 10 provides a breakdown of the Marine sample in terms of multiple deployment status. Recall that the percentage of Marines in 2010 with multiple deployments is similar to the 2006 MHAT IV sample, but is significantly greater than in 2007 (MHAT V). Figure 12.4 provides a mosaic plot showing deployment status (First Deployment, Second Deployment and Third or more Deployments) by rank. Notice that a large percentage of the E1-E3 and the E4 populations have deployed twice, whereas NCOs are overrepresented in the group that has deployed three or more times. Conversely, all USMC Officers in surveyed units reported that the 2010 deployment is their first deployment to either Iraq or Afghanistan.

Figure 12.4: Mosaic Plot of the Relationship Between Rank and Multiple Deployments to Iraq or Afghanistan



Previous MHATs conducted in Iraq and Afghanistan with Soldiers identified multiple deployments as a risk factor for a variety of well-being indices. The Marine sample size for 2010 is too small to provide adequate statistical power to test whether a multiple deployment effect exists; however, by combining data from the 2006, 2007, and 2010 MHAT surveys, the impact of multiple deployments on Marines' psychological health and functioning can be evaluated. In the combined comparison, rank must be analyzed as three categories (E1-E4, E5-E9, and Officers) because MHAT IV and V did not include a separate category for E4.

Figure 12.4.1 shows that ratings of morale among multiple deploying Marines follows a pattern consistently found in analyses of Soldier data. Specifically, ratings of both individual and unit morale decline with repeated deployments. Marines NCOs with three or more deployments have significantly lower individual and unit morale than NCOs deploying the first time.

Figure 12.4.1: Sample-Adjusted Values for NCOS in Theater 4.5 Months

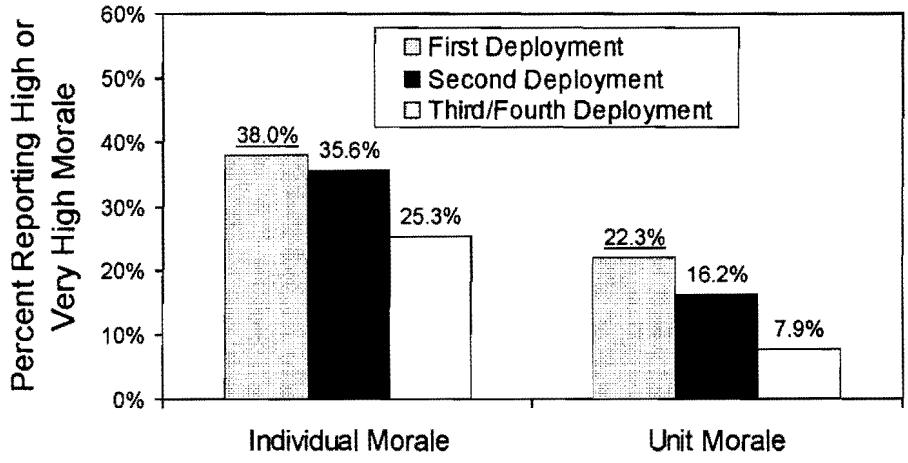
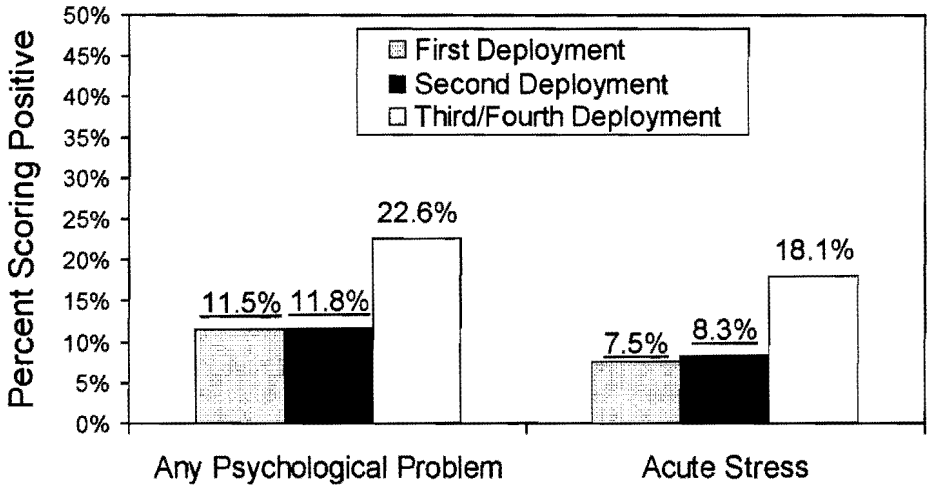


Figure 12.4.2 reveals that Marines with three or more deployments report significantly greater psychological problems than Marines on their first or second deployment. The right side of the figure shows that the increase is primarily due to elevated acute stress symptoms.

Figure 12.4.2: Sample-Adjusted Values for NCOs in Theater 4.5 Months



12.5 Deployment Concerns

While combat experiences are intense events that put Marines at risk, other less dramatic, but more chronic concerns can impact behavioral health. MHAT surveys assess a core set of 11 deployment concern items listed in Table 12.5. Notice in the table that three concerns have significantly increased among Marines relative to 2007. Specifically, in 2010 Marines report significant increases in difficulties communicating back home, not getting enough sleep, and continuous combat operations. Interestingly, however, compared to 2006, Marine respondents in 2010 reported significantly fewer difficulties in being separated from their families. It is not clear why there is a decline in concerns about being separated from families while there is a simultaneous increase in concerns about difficulties communicating back home.

Table 12.5: Adjusted Percents for E1-E4 Marines in Theater 4.5 Months.

Trouble or Concern Caused By	Percent rating High or Very High Trouble or Concern		
	MHAT IV OIF 2006	MHAT V OIF 2007	J-MHAT 7 OEF 2010
Being separated from family.	24.9%	16.0%	15.4%
Illness or problems back home.	14.4%	11.3%	11.5%
Boring and repetitive work.	32.1%	34.1%	29.0%
Difficulties communicating back home.	13.6%	14.6%	33.3%
Uncertain redeployment date.	15.7%	14.8%	15.5%
Lack of privacy or personal space.	28.3%	21.3%	28.0%
Lack of time off, for personal time.	32.3%	26.9%	33.4%
Not having the right equipment or repair parts.	20.8%	18.1%	23.9%
Not getting enough sleep.	25.4%	22.0%	37.7%
Continuous operations.	30.4%	23.9%	36.6%
Long deployment length.	18.6%	15.7%	19.6%

13. MARINE REPORT: RESILIENCE FACTORS

Resilience factors are the third broad category of factors in the conceptual model of Service Member well-being. The concept of psychological resilience can be defined as the ability to maintain psychological health (or even to experience psychological growth) when faced with challenges. As illustrated in this section, resilience is affected, both positively and negatively, by multiple factors to include unit climate, individual coping behaviors, the willingness and ability to seek care, marital support, and perceptions of behavioral health training designed to help Marines.

13.1 Unit Factors

Unit factors such as small-unit leadership (NCO and Officer), cohesion, and readiness are directly related to unit well-being, and often play a role in attenuating the link between deployment stressors and behavioral health outcomes (e.g., Bliese & Castro, 2003; Bliese, 2006). In other words, under demanding circumstances such as high levels of combat, effective leadership can serve as a protective or buffering influence that reduces the amount of acute stress Soldiers report (MHAT VI, OIF Report). Attenuating or buffering effects have been detected in MHAT reports with sample sizes well over 1,000 (MHAT V and MHAT VI from OIF), but are difficult to detect in smaller sample sizes (<1000) because effect sizes associated with interactions tend to be small. Given this background, it is not surprising that no interactive effects were observed between unit factors and risk factors such as combat exposure in the 2010 survey with USMC service members. Even without these interactive effects, however, it is valuable to examine how ratings of these core unit factors vary across years.

Figure 13.1: Unit Climate Variables

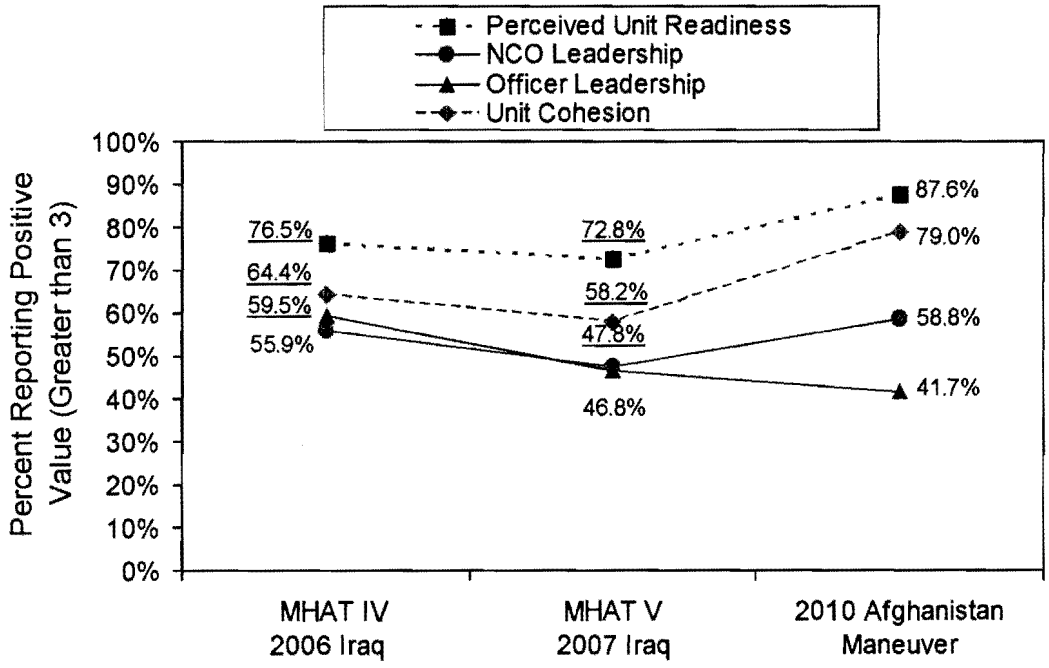


Figure 13.1 shows that Marines' 2010 ratings of Perceived Unit Readiness, Unit Cohesion, and NCO Leadership are significantly higher than in 2007. Similarly, 2010 ratings for readiness and

cohesion are also significantly higher than 2006. Marines' 2010 ratings of Officer Leadership are significantly lower than ratings obtained in 2006, but not significantly lower than 2007 ratings. Overall, ratings in 2010 for all dimensions other than Officer leadership are higher than previous years.

13.2 Stigma

At an organizational level, one way to enhance resilience would be to encourage Marines to seek mental healthcare before problems escalate. From this perspective, low levels of stigma could be considered a resilience factor. A key factor for seeking mental healthcare is overcoming stigma. Importantly, one of the challenges is that stigma is strongest among individuals who screen positive for psychological problems (Hoge, et al., 2004). Therefore, when looking at changes in rates of perceived stigma, it is informative to examine those who screen positive for psychological problems. Table 13.2 provides across-year adjusted rates for Marines both meeting and not meeting the criteria for a psychological problem across the six stigma related questions. Underlined values indicate a significantly different pattern of results from 2010. For instance, on the item "It would harm my career" the percent agreeing or strongly agreeing for 2006 (MHAT IV) is 11.1% and for 2010 it is 12.6% for those who do not screen positive, but changes from 57.3% to 27.5% for those who do screen positive. The change in pattern is statistically significant. Significant pattern changes relative to 2010 were observed for five of the six items, and in all of the five items the pattern change is that the reported rates for those who screen positive for mental health problems declined from 2006 relative to 2010.

Table 13.2: Sample-Adjusted Percents for Male, E1-E4 Marines in Theater 4.5 Months who Screen Positive and Who Do Not Screen Positive for Any Mental Health Problems

	Percent Agree or Strongly Agree					
	MHAT IV OIF 2006		MHAT V OIF 2007		J-MHAT 7 OEF 2010	
Factors that affect your decision to receive mental health services	Screen Positive	Do Not Screen Positive	Screen Positive	Do Not Screen Positive	Screen Positive	Do Not Screen Positive
It would be too embarrassing.	36.0%	10.7%	31.7%	16.7%	24.0%	13.5%
It would harm my career.	57.3%	11.1%	19.4%	12.4%	27.5%	12.6%
Members of my unit might have less confidence in me.	66.1%	20.0%	30.4%	21.0%	33.3%	21.1%
My unit leadership might treat me differently.	66.5%	20.9%	33.6%	20.8%	30.9%	21.1%
My leaders would blame me for the problem.	53.4%	11.3%	31.7%	13.4%	19.7%	13.4%
I would be seen as weak.	62.1%	21.8%	39.7%	25.9%	29.5%	22.8%

13.3 Barriers to Care

Barriers to care in the across-year maneuver sample showed a decrease relative to 2006 and 2007. Sample-adjusted rates for Marines both meeting and not meeting the criteria for a psychological problem are presented in Table 13.3. The across-year adjusted rates for four of the six survey items showed changes from 2006 to 2010, and one item (I don't know where to get help) also changed from 2007 to 2010. In most cases, the nature of the significant change was that those who screened positive for mental health problems reported large decreases in barriers; however, the nature of the significant change for the item "It's too difficult to get to the location where the mental health specialist is" showed the largest change among those who did not screen positive (2.4% in 2006 versus 12.5% in 2010).

Table 13.3: Sample-Adjusted Percents for Male, E1-E4 Marines in Theater 4.5 Months who Screen Positive and Who Do Not Screen Positive for Any Mental Health Problems

	Percent Agree or Strongly Agree					
	MHAT IV OIF 2006		MHAT V OIF 2007		J-MHAT 7 OEF 2010	
Factors that affect your decision to receive mental health services	Screen Positive	Do Not Screen Positive	Screen Positive	Do Not Screen Positive	Screen Positive	Do Not Screen Positive
Mental health services aren't available.	26.0%	1.2%	15.2%	4.3%	7.9%	7.0%
I don't know where to get help.	27.0%	3.6%	26.2%	6.3%	5.8%	6.8%
It is difficult to get an appointment.	8.5%	2.5%	19.3%	6.1%	11.9%	6.6%
There would be difficulty getting time off work for treatment.	53.4%	11.2%	36.0%	18.1%	24.5%	18.3%
It's too difficult to get to the location where the mental health specialist is.	16.8%	2.4%	22.8%	7.4%	14.2%	12.5%
My leaders discourage the use of mental health services.	20.1%	4.8%	18.6%	4.7%	9.6%	5.2%

13.4 Training

This section on protective factors focuses on Marines' reports of whether or not they have received training on suicide prevention and stress management, and whether this training is perceived to have been effective.

13.4.1 *Training Adequacy for Deployment Stress and Suicide*

Table 13.4.1 compares Marines' responses across years to whether or not they agreed that they had received adequate training for deployment stressors and suicide, and whether they felt confident in their ability to identify and help others in need of behavioral healthcare. Compared to 2006 and 2007, significantly more Marine Corps respondents in 2010 agreed or strongly agreed that they had received training in suicide prevention. Furthermore, compared to 2007, significantly more Marines in 2010 reported assisting fellow Service Members with mental health problems.

Table 13.4.1: Sample-Adjusted Percents for E1-E4 Marines in Theater 4.5 Months.

Suicide and Stress Training / Use	Percent "Yes" MHAT IV OIF 2006	MHAT V OIF 2007	J-MHAT 7 OEF 2010
I have received suicide prevention training in the past year.	81.5%	81.2%	88.4%
I have received training in managing the stress of deployment and/or combat prior to this deployment.	85.6%	84.9%	87.3%
I have assisted one or more fellow Service Members with a mental health problem in the past year.	37.2%	28.4%	36.0%
I helped a Service Member who had a Mental Health Problem get professional help.	30.1%	23.9%	22.8%

Table 13.4.2 compares Marines' ratings of the adequacy of the training they received in suicide prevention and management of deployment stressors. Compared to 2007, significantly more Marines in 2010 agreed or strongly agreed that they were confident in their ability to help Service Members get MH assistance. Further, they reported a significant increase in reports of the adequacy of the training they received in managing the stress of deployment and/or combat.

Table 13.4.2: Sample-Adjusted Percents for E1-E4 Marines in Theater 4.5 Months.

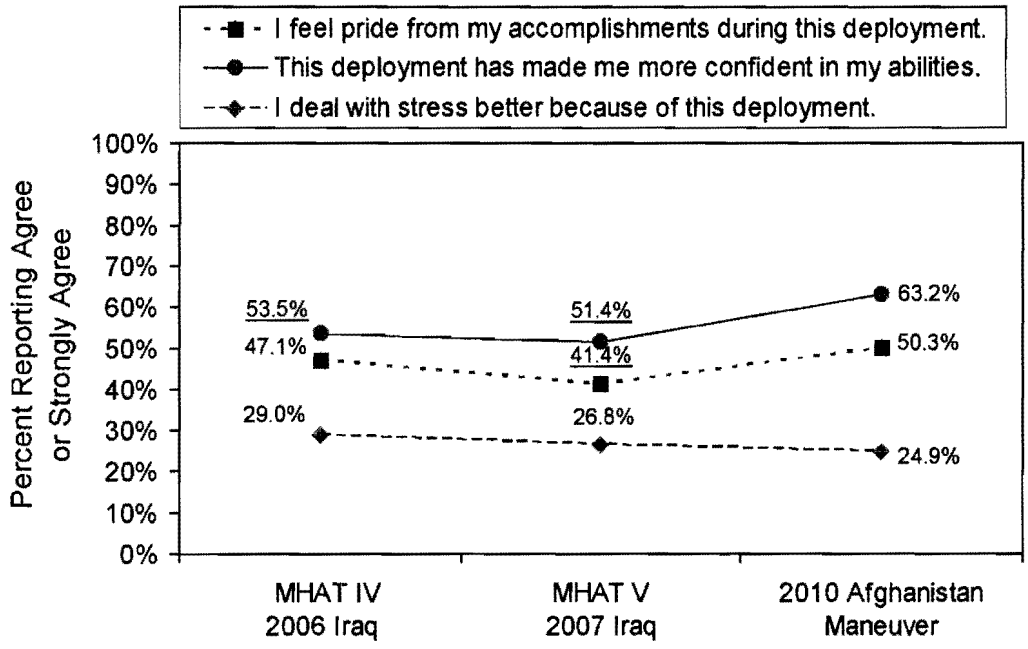
Adequacy of Suicide and Stress Training	Percent Agree or Strongly Agree MHAT IV OIF 2006	MHAT V OIF 2007	J-MHAT 7 OEF 2010
I am confident in my ability to identify Service Members at risk for suicide.	61.3%	57.3%	61.0%
I am confident in my ability to help Service Members get mental health assistance.	67.1%	54.7%	64.6%
The training for identifying Service Members at risk for suicide was sufficient.	59.3%	50.8%	58.2%
The training in managing the stress of deployment and/or combat was adequate.	52.1%	48.2%	58.7%

13.5 Positive Impact of Deployment

As mentioned previously, the concept of psychological resilience includes at least two positive responses to adverse circumstances: maintenance of baseline psychological health and/or

positive psychological growth. Several questions included on the MHAT IV, MHAT V, and J-MHAT 7 surveys probe whether the experience of deployment resulted in positive changes in Marines' confidence, pride, and ability to manage stressful circumstances. Figure 13.5 indicates that the percentage of Marines who agreed with the statement "I deal with stress better because of this deployment" has remained relatively stable since 2006. In contrast, significantly more Marines in the 2010 J-MHAT sample reported pride in their accomplishments (relative to MHAT IV and MHAT V), and greater confidence in their abilities as a consequence of deployment (relative to MHAT V).

Figure 13.5: Positive Impact of Deployment



14. MARINE REPORT: DISCUSSION

14.1 Overview of Findings

Results from J-MHAT 7 detail the complexity of the behavioral health picture among Marines from maneuver units in Afghanistan in 2010. Specifically, results illustrate that there is no simple theme that completely describes the behavioral health status of Marines in Afghanistan. It is certainly noteworthy that Marines' ratings of acute stress are higher in 2010 than 2006 or 2007, and that ratings of individual and unit morale have declined across the MHAT IV, MHAT V, and J-MHAT 7 surveys. In addition, interpersonal difficulties between unit members (as indexed by reported episodes of verbal and physical anger) are more common among Marines in 2010 than in 2006 or 2007. Although work performance ratings cannot be compared across years, over one-third of Marines in the 2010 sample described difficulties in overall work performance. These indicators of psychological, interpersonal, and functional problems indicate a force under strain. However, to make sense of these indices of behavioral health, it is helpful to begin by examining reports of combat exposure and interpreting the responses in a historical context.

14.1.1 *Intense Combat Activity.*

Reported levels of combat exposure among Marines in 2010 are significantly higher than levels reported in 2006 and 2007. The higher level of combat activity experienced by Marines this year is noteworthy, particularly compared to 2006, which was a time of intense conflict in Iraq. In 2006, 50.9% of respondents from Marine maneuver units in OIF reported experiencing the event of a member of their unit becoming a casualty. While high, the value of 50.9% is well below the 79.0% endorsement rate in Afghanistan in 2010. Even more striking is the difference in reported rates for reporting being directly responsible for the death of an enemy combatant. In OIF in 2006, the rate for reporting killing an enemy combatant among maneuver unit Marines was 12.7%; the rate for Marines in Afghanistan in 2010 is 56.1%.

It is possible that the random sampling of maneuver unit platoons implemented in the 2010 J-MHAT 7 survey is partially responsible for the increase in combat experience, and that had an identical sampling plan been implemented in 2006 in OIF, the numbers would have been more comparable. However, it is noteworthy that the rates of combat exposure reported overall in Afghanistan in 2010 are higher than in any other dataset collected as part of the MHAT program, suggesting that the level of kinetic activity reported in 2010 is indeed extraordinarily high.

The rates of Marines reporting exposure to concussive events in 2010 is striking in terms of absolute terms. Items on the J-MHAT 7 survey that referenced concussive events were not asked in previous years, so it is not possible to compare this year's responses to those from other MHATs. Nonetheless, the raw percentages are revealing. Recall that in section 10.5 the graph showed that over 50% of the maneuver unit Marines reported being dismounted and within 50 meters of a blast at least once. This number is almost certainly an underestimate of the percent of Marines that will experience exposure to blast in a 6-month tour given that (on average) the sample had only been in theater for only 4.3 months.

14.1.2 *Psychological Impact*

Psychologically, it is hard to imagine that these levels of combat are not taking a toll on Marines. Reports of more psychological problems, interpersonal conflicts among unit members, and

difficulties in work performance for Marines in the 2010 sample suggest a force under duress. At the same time, however, when one looks at the contextual factors surrounding the deployment – the high levels of combat reported and the high percentages of Marines experiencing concussive events – there is a sense that the rates of behavioral health problems (while high) may actually be lower than would be expected given the levels of engagement reported. Indeed, significant increases in self-reported pride and confidence observed between 2007 and 2010 suggest that over half of the 2010 USMC sample (50.2% - 63.0%) has experienced some degree of positive psychological growth as a consequence of the current deployment.

For US Army maneuver units, evidence for resilience in the J-MHAT 7 sample can be examined by comparing Soldiers' reactions to combat experiences in 2010 to cumulative information gathered from thousands of Soldiers who have been surveyed across the MHAT process. The large database of responses collected from 2004 to 2009 (MHAT II to MHAT VI; N=7,170) provides a stable estimate of the relationship between combat experiences and the percent of Soldiers reporting mental health problems. Using this population estimate as a point of reference, the resilience or non-resilience of the 2010 force can be examined by testing whether observed relationships between combat exposure and psychological problems diverge from the expected population curve (Section 9.1.2, SOLDIER REPORT: DISCUSSION). The smaller historical database for Marine maneuver units surveyed in MHAT IV and MHAT V (N=682) is insufficient to support a similar empirical analysis of the 2010 USMC force. Thus, we recommend:

> Marine Recommendation 1: Continued participation by USMC maneuver units in future Joint Mental Health Advisory Team missions. A historical database of Marines' responses to survey items should be established to provide a referent basis for interpreting future findings, and evaluating changes in Marines' behavioral health status, risk factors, and resiliency over time.

Although it is not possible to test whether the 2010 USMC sample is more or less resilient than USMC groups surveyed in 2006 and 2007, we can identify several factors based on the extant literature that may contribute to increased resilience among Marines. These include aspects of pre-deployment training, the quality of small unit leadership, selective prevention interventions for at-risk groups, early treatment for those with psychological problems, and active management of environmental stressors.

14.2 Factors Related to Resilience

14.2.1 *Combat Training and Small Unit Leadership*

Results reported here show that the collective group of Marines surveyed in 2010 report high ratings of perceived unit readiness, unit cohesion, and NCO leadership. Unit factors such as these are directly related to unit well-being, and often play a role in attenuating the link between deployment stressors and behavioral health outcomes (e.g., Bliese & Castro, 2003; Bliese, 2006). In focus groups, Marines reflected on the importance of effective NCO mentorship for enhancing mission readiness and unit cohesion. One E4 remarked, "Our Sergeants are experienced, knowledgeable, and highly decorated. They had no problem in correcting us when we needed it during the workup, or in giving positive feedback when we did something well. We learned to do lots of jobs, so once we got here we were pretty comfortable with doing just about anything." Once deployed, an important ingredient for maintaining unit cohesion is observing

enlisted Service Members, NCOs, and officers contributing equally to combat tasks. Said one E3, "In our unit, everyone carries his own weight, from the lowest private to the Company Commander. Lance Corporals, Master Sergeants, and Officers are out there patrolling with us. Everyone does his part." In contrast, Marines commented that cohesion suffers when teams are prevented from solving tactical problems at the platoon level. Said one E3, "When higher command force feeds us solutions, it never works. We can handle mission related problems on our own, but there are a lot of problems when we have to follow someone else's plan. Our platoon is cohesive within itself, but it has to protect itself from external friction." Based on focus group responses, Marine E1-E4 service members appear to place high value on well-rounded combat skills, team members who are willing to share burdens equally, and the latitude to self-manage the missions assigned to them.

14.2.2 *Preparing for the Psychological Impact of Deployment*

Marines surveyed in 2010 report significant increases in the availability and adequacy of pre-deployment suicide prevention and stress management training. The vast majority of Marines report that they received suicide prevention training in the past year (88.4%) as well as training in how to manage stressors related to combat and/or deployment (87.3%). These results suggest that the universal prevention approaches advocated in the 2006 Navy Medicine Combat and Operational Stress Control (COSC) program have taken hold, and that large numbers of Marines are now exposed to prevention programs during reset and pre-deployment training phases. These universal prevention activities should continue.

Previous MHATs with Soldiers have identified multiple deployments as a risk factor for a variety of adverse behavioral health outcomes. Results from Marines surveyed in 2010 are consistent with prior findings from Soldiers. As a group, Marines in their third or fourth deployments are more susceptible to acute stress reactions and lower individual morale, suggesting that these individuals are an appropriate group for selective prevention programs prior to deployment. Proactive strategies for managing cognitive, affective, and physiological responses to stressful situations, and for maintaining energy, drive, and enthusiasm over long deployments, are potential interventions to be considered for this particular at risk sample.

The J-MHAT 7 team is aware that Marine Corps Reference Publication 6-11C, Combat and Operational Stress Control (MCRP 6-11C/NTTP 1-15M DRAFT) provides guidance regarding early identification and prevention approaches relevant to the pre-deployment training period. The US Navy and US Marine Corps may wish to convene a panel of combat stress control experts to evaluate data presented in the current report, and to consider whether additional selective prevention approaches are indicated for NCOs during reset and pre-deployment phases. In addition the J-MHAT 7 team recommends:

> Marine Recommendation 2: Implement the DRAFT Marine Corps Reference Publication 6-11C, Combat and Operational Stress Control (MCRP 6-11C/NTTP 1-15M DRAFT).

14.2.3 *Prompt Treatment for Psychological Problems*

Once mental disorder symptoms emerge, the most effective strategy for ensuring recovery lies in prompt application of evidence-based treatments. In the civilian population, misconceptions about the nature of mental disorders (e.g., prevalence, biological mechanisms, effectiveness of

treatment) can contribute to stigma concerning these conditions, and often interfere with treatment seeking and recovery. In this regard, J-MHAT 7 results regarding stigma and perceived barriers to care among Marines screening positive for psychological problems are encouraging. Recall that compared to similar Marines from prior samples, those with psychological problems in 2010 attach fewer negative consequences to pursuing mental health treatment and see fewer barriers to care. However, stigma ratings among Marines who do not screen positive for mental health problems have generally increased since 2006. This finding suggests that attitudes about mental health issues are uneven within the Marine Corps, and that programs directed at reducing stigma throughout the entire force should continue.

The improved ratings of stigma and barriers to care among Marines who screen positive for psychological problems are likely attributable to two independent causes. In the case of stigma, results may relate to psycho-educational programs introduced after Navy Medicine Combat and Operational Stress Control (COSC) principles were published in 2006. The perceived reduction in barriers to care almost certainly reflects the significant increase in the number of behavioral health personnel in theater in 2010, a number of new clinics and treatment programs in the RC South area, and the fact that behavioral health personnel are clearly engaged in finding ways to reach Marines in remote locations.

The J-MHAT 7 team is aware that Marine Corps Reference Publication 6-11C, Combat and Operational Stress Control (MCRP 6-11C/NTTP 1-15M DRAFT) provides guidance on teaching COSC core competencies to Naval and Marine Corps Leaders; Naval Medical Treatment Facility (MTF) medical, mental health, and behavioral health providers; Combat/Operational Stress Control Specialists; and Navy Corpsmen. The US Navy and US Marine Corps may wish to convene a panel of combat stress control experts to evaluate data presented in the current report regarding stigma and barriers to care, and to consider whether opportunities exist to maintain and expand positive developments concerning the prompt availability of evidence-based care within the OEF theater of operations.

14.2.4 *Managing Environmental Stressors*

The final resiliency-building intervention considered here is management of environmental stressors. While many environmental risks are unavoidable in a combat environment (e.g., exposure to potentially traumatic combat events), some environmental features are mutable, and can be influenced to work in favor of the warfighter. Prominent among these are milieu characteristics that impact the quality sleep, including availability high-caffeine energy drinks and how sleeping quarters are organized to facilitate restful sleep. Approximately 20% of Marines report that they consume at least one energy drink per day; another 23.5% consume two or more energy drinks each day. At concentrations ranging between 80mg-500mg of caffeine per serving in these beverages (http://www.energyfiend.com/the-caffeine-database), many Marines consume caffeine in amounts that may greatly exceed recommended daily doses.

Recall that 61.2% of Marines in the J-MHAT sample reported that their sleep had been disrupted 15 or more days over the past month; 46.7% attribute sleep problems to environmental factors such as too much noise, extreme temperatures, and poor light discipline. In a focus group with behavioral health providers, one doctor commented that "In a lot of cases you find that day and night workers are mixed in the same tent. Mixing these shifts can disrupt sleep for anyone, but primarily for light sleepers. I think that commanders should consider this factor when assigning Marines to sleeping quarters, and match tent mates based on day and nighttime jobs."

Because organization of sleeping quarters and the availability of energy drinks are potentially controllable through command directives, USMC leaders may wish to review relevant Marine Corps Reference Publications regarding unrestricted availability of high-caffeine energy drinks and methods for maintaining proper sleep hygiene. The US Navy and US Marine Corps may wish to convene a panel of sleep experts to evaluate the adequacy of (a) sleep hygiene instruction during pre-deployment training and (b) available guidance on optimal sleep discipline practices in theater, including proactive mitigation of environmental factors known to disrupt sleep (e.g., temperature, noise, light, activity level).

15. BEHAVIORAL HEALTHCARE SYSTEM ASSESSMENT

15.1 ATO Behavioral Health (BH) Overview

The challenge of providing mental health (MH) services in a combat theater environment are varied and numerous. The majority of MH providers receive their clinical training in (and subsequently practice from) an office-based environment where patients seek out their services and risks are mitigated through environmental safeguards (i.e. – duress alarms, cipher-locked doors to limit access, no weapons allowed in the facility). Provision of MH service in theater is quite different due to the expeditionary nature of the BH role placing personnel in possible "harm's way." This "tip of the spear" focus brings most BH personnel into unfamiliar territory. Receivers of care arrive to appointments with weapons and the location where care is provided has few of the environmental safeguards noted above. The risks inherent have recently been seen in the tragic shootings of MH personnel at Camp Liberty (Iraq) and Fort Hood (pre-deployment preparation). For the purpose of this section, the terms behavioral health (BH) and mental health (MH) will be used interchangeably to represent the same type of service provision. Additionally, Service Members will be referred to as SMs.

Despite this major paradigm shift that faces BH personnel when deploying, tri-service MH professionals have been "fully in the fight" providing needed services to warfighters. When visiting a forward location (i.e. - Combat Outpost), the helping professionals most likely to be present are Chaplains, Aid Station personnel, and MH personnel. In fact, it can be argued that MH personnel have been some of the most active and forward-reaching of all the medical occupational specialties during OIF and OEF. The value of MH personnel to the OEF/OIF mission can be found in the high demand placed on BH assets. For example, MH personnel are the only medical occupational specialty in the United States Air Force with a 1:2 deploy-to-dwell ratio and are subsequently identified as a 'low supply/high demand' AFSC (Air Force Specialty Codes). MH personnel in the other Services also occupy a similar position as critical assets needed to support the war effort. Military MH personnel therefore can be proud of their contribution and take a back seat to no one in supporting our maneuver units in the global war on terror.

In part, this high demand may be due to our willingness through efforts such as the MHAT process to take a 'good hard look' at our military BH delivery system. The Joint service collaboration of J-MHAT 7 is a positive move further ahead to provide a tri-service perspective and better understand BH service delivery across the ATO. Therefore, the information presented and recommendations proposed in this report reflect the combined experience of Air Force, Army, and Navy researchers and practitioners who have joined together to explore ways to provide MH service in theater that will both a) reach all SM's in need and b) be compatible with service specific doctrine and policies.

15.2 Behavioral Health (BH) Staffing and Distribution

Within the ATO, personnel numbers for both BH staff and overall military personnel remain fluid due to a combination of deployment rotations, operational requirements, and SM needs. For these reasons, it is important to recognize that the data presented below represent a snapshot of BH staffing and distribution as of August 2010.

Table 15.2. Distribution and Ratio of MH Specialties by Service

SPECIALTY	MHAT OEF 2005	MHAT OEF 2007	MHAT OEF 2009	J-MHAT OEF 2010
ARMY				
Psychiatrist	2	0	1	8
Psychologist	1	1	2	13
Social Worker	1	2	4	4
Psych Nurse Practitioner	0	0	0	2
Psych Nurse*	0	0	0	1
MH Specialist	5	7	7	48
Occupational Therapist	0	0	1	5
OT Tech	0	0	1	7
TOTAL	9	10	16	88
NAVY				
Psychiatrist	0	0	2	8
Psychologist	0	0	0	4
Social Worker	0	0	0	1
Psych Nurse Practitioner	0	0	0	1
Psych Nurse*	0	1	0	0
MH Specialist	0	0	0	14
Occupational Therapist	0	0	0	0
OT Tech	0	0	0	0
TOTAL	0	1	2	28
AIR FORCE				
Psychiatrist	0	3	3	3
Psychologist	0	4	4	5
Social Worker	0	3	3	5
Psych Nurse Practitioner	0	0	2	0
Psych Nurse*	0	1	0	1
MH Specialist	0	7	13	14
Occupational Therapist	0	0	0	2
OT Tech	0	0	0	1
TOTAL	0	18	25	31
JOINT SERVICE THEATER FORCES STAFFING RATIO				
Total	9	29	43	147
Overall Staffing Ratio	1756	651	1123	646
Independent Practitioner Ratio **	3951	1452	2194	1508

*Psychiatric Nurse Practitioners and Psychiatric Nurses were not differentiated until 2009 MHAT

**Independent Practitioners include Psychiatrists, Psychologists, Psychiatric Nurse Practitioners, Social Workers and Occupational Therapists

Note: Data collected with assistance of ATO Behavioral Health Consultant. Rates do not include Coalition personnel

Table 15.2 provides a breakdown of the BH personnel by occupational specialty and branch of service for OEF 2005, OEF 2007, OEF 2009 and OEF 2010. In reviewing the history of BH staffing patterns since 2005, there has been a steady increase in the number of BH personnel

supporting the ATO. In 2005, previous MHATs record no Navy or Air Force assets in the ATO (although this is almost certainly an oversight error given that AF teams have been in theater continuously since at least 2004). Beginning in 2007, it is clear that the Air Force was providing the majority of BH assets to the ATO (62.1%) with the Army providing 34.5% of the BH assets in-theater and the Navy providing 3.4%. In 2010, there was a substantial increase and shift in BH staffing, with the Army providing the majority (60%) of the BH assets, followed by the Air Force (21%), and Navy (19%). These increases are consistent with the 2009 MHAT VI recommendations to increase BH staffing to accommodate the surge in OEF forces.

Tri-service behavioral health personnel continue to be at the forefront of providing services to our deployed warfighters. The methodology for providing these services though has changed from inception of hostilities due to battlefield conditions and SM needs. Beginning in 2007, a push was made to redistribute individual BH personnel throughout the ATO in order to provide improved support to SMs at FOBs and COPs. This redistribution of assets to outlying, forward deployed locations continues to be the model of care within the ATO.

An expansion of Combat Stress Control (CSC) leadership was initiated in January 2010 when a second leadership hub was established in (b)(3):10 USC 130(b) A third leadership hub began operations in July 2010 in (b)(3):10 USC 130(b) These actions expanded the CSC leadership's ability to disperse assets and provide closer HQ support to outlying areas.

Finally, two new facilities have opened to provide more specialized care to SMs. The Freedom Restoration Center opened at (b)(3):10 USC 130(b) in 2009 to provide in-theater treatment for SMs experiencing combat operational stress reactions. A second restoration center is scheduled to open in the spring of 2011 at (b)(3):10 USC 130(b) In 2010, mild Traumatic Brain Injury (mTBI) clinics were created at (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) to evaluate and treat the range of concussive injuries increasingly being experienced by SMs in the ATO (see Appendix C: mTBI Clinic Overview).

The bottom of Table 15.2 provides the overall staffing ratio of BH personnel to SMs. The overall staffing ratio compares the total number of BH personnel available in theater – mental health professionals, mental health technicians, and allied providers – to the overall size of the U.S. OEF military force. The ratio for MHAT VI OEF was estimated to be 1:1123, far exceeding the ratio observed in MHAT V OEF (1:651) and meaning that fewer BH personnel were available per SM.

An estimate of the ratio of independent practitioners to the total population in theater is also provided at the bottom of Table 15.2. Independent practitioners are defined as psychiatrists, psychologists, psychiatric nurse practitioners, social workers and occupational therapists. The ratio for MHAT VI OEF was estimated to be 1:2194, far exceeding the ratio observed in MHAT V OEF (1:1452), indicating a shortage of providers in the 2009 ATO given the high troop dispersion.

A recommendation was made in the 2009 MHAT VI report to increase the overall BH personnel to reach a 1:700 staffing ratio. Data from J-MHAT 7 OEF indicate that the current overall staffing ratio is 1:646. The ratio of independent practitioners to SMs has also improved (1:1508 in OEF 2010). Both have occurred despite the recent surge in ATO troop strength (currently estimated at 95,000).

15.3 Behavioral Health Survey Results

A census survey of theater BH personnel was conducted in August 2010. In total, 102 surveys were distributed (83% of the surveys were returned, n=85) to assess providers' perceptions of COSC concepts and skills; SMs BH needs; stigma and barriers to care; and aspects of BH personnel well-being. The number of surveys collected in 2010 more than doubled the survey responses received for the 2009 MHAT VI OEF report (31 total surveys). To aid in comparison with past MHAT samples, the 2010 BH survey followed an identical format to previous MHAT years. MHAT V OEF (2007), MHAT VI OEF (2009), and J-MHAT 7 OEF (2010) response percentages to all survey questions are included in Appendix D. The J-MHAT 7 BH survey assessed:

1. Demographic Information
2. Standards of Practice
3. Coordination of Care
4. COSC and BH Services
5. Skills and Training
6. Stigma and Barriers to Care
7. Service Members' Needs
8. Personal Well-Being
9. Psychiatric Medication

Focus group interviews were conducted to provide qualitative assessments of BH personnel deployment experiences. Nineteen focus group interviews were conducted with 60 BH personnel ranging from 1 to 10 personnel per group (M = 3.2). Interviews were conducted in a semi-structured format in which open- and closed-ended questions were asked to gather information about 8 major areas to include: Standards of Clinical Care, Personnel Resources and Travel, Pre-Deployment Training - COSC and Combat Skills Training (CST), Well-Being and Safety, Special Programs, Coordination of Care, Stigma and Barriers to Care, and Procedures and Availability of Medications.

Following completion of each interview, the information obtained was transcribed and themes were identified that highlighted the main areas of interest/concern. The themes from all focus groups were then compiled and separated into 10 major thematic areas. Finally, the most frequently identified topics from each thematic area are presented in this report as being the most important to the BH staff. Behavioral health personnel interview themes are used in combination with survey results to present a subjective and objective picture of the issues of concern to currently deployed OEF BH staff.

It should be noted that the small number of BH survey responses in MHAT OEF V and MHAT OEF VI limit statistical comparisons between the samples and the data obtained in 2010. Therefore reported differences between the three samples are only descriptive.

15.3.1 *Behavioral Health Survey Demographics*

Demographics for BH personnel responding to the survey are presented in Table 15.3.1. In general, the J-MHAT 7 OEF respondents included more reserve personnel and more males, who reported being deployed more months since 9/11 than the OEF V or VI samples. The 2010 respondents also reported that the average number of SMs their teams supported and average number of hours spent outside the FOB was less than reported in 2009. J-MHAT 7 OEF survey participants were more evenly represented across the Services than in previous years (Army: 55%, Navy: 30%, and Air Force: 15%).

Table 15.3.1. Demographics of Surveyed BH Personnel

	MHAT 5 OEF	MHAT 6 OEF	MHAT 7 OEF
Sample Size	n = 23	n = 31	n = 85
Age Range in Years (Mode)	30-39	30-39	30-39
Gender	55% Male	52% Male	67% Male
Rank			
Jr. Enlisted (E1-E4)	22%	23%	20%
NCO (E5-E9)	17%	27%	23%
Officers / Warrant Officers	61%	50%	57%
Branch of Service *	61% AF	70% AF	55% Army
Component (Mode)	87% Active	97% Active	70% Active
Avg Months Deployed since 9/11	8.17	4.43	8.92
Avg Number of Service Members team supports	5,597	5,123	4,786
Avg Hours spent per Week Outside FOB	2.91	21.13	13.20
Avg Days per Month Living Outside FOB	4.91	3.96	3.70
Average Number of Locations BH/COSC Team Supports	30.17	8.08	13.52

* Percent reported for Service providing most members

15.3.2 *Behavioral Health Focus Group Results*

As noted above, review of the transcripts for the 19 focus groups showed that 10 major thematic areas emerged during the interviews. These areas are listed below in order of frequency that topics were brought up by BH personnel. Five areas will be highlighted (identified by being starred below) due to the importance of the information obtained from surveys and focus groups. The other areas will be available for review in Appendix E of this report.

1. *Service Member Care
2. *Provider/Technician Role
3. *Pre-Deployment Training
4. Special Programs
5. Resources
6. Well-Being/Safety
7. *Coordination of Care
8. Communication/Education
9. *ATO Movement/Travel
10. Prevention/Outreach

Service Member Care. The most frequently occurring theme during BH focus groups centered on issues relating to SM care. In the 2010 survey data, the majority of BH personnel felt the standards of BH care in the ATO were clear (76.2%) as were the standards for how much patient information they can share with Commanders (82.1%). The majority of BH personnel expressed confidence in their ability to evaluate/treat the range of MH issues to include combat stressors, suicidal thoughts/behaviors, substance abuse/dependence, COSR, acute stress disorder/PTSD, and sexual assault. Areas where personnel felt decreased confidence included treatment of non-combatants, detainees, and host nation security force personnel.

Within this broad topic area, a number of specific concerns were raised in focus groups with two major issues consistently being brought up across groups. The first issue focused on the number of SMs seen who have pre-existing mental health conditions and/or are prescribed

psychiatric medications not typically allowed in the ATO. These SMs reportedly consume an inordinate amount of BH resources that could be used for other tasks (such as increased prevention/ outreach efforts). Mechanisms are in place for the appropriate screening of Service Members prior to deployment. The Army's Comprehensive Behavioral Health System of Care Campaign Plan (CBHSOC-CP) addresses screening "Touch Points" that are designed to improve the pre-deployment screening process (see Annex B of https://www.us.army.mil/suite/files/21875940).

The psychiatric medication section of the BH survey is reserved only for providers credentialed to prescribe medications. Respondents to this section stated that the availability of appropriate psychiatric medications was deemed **inadequate** at Level I Aid Stations (43.5%) and 28.6% felt the same about availability of psychiatric medications at Level II Forward Support Medical Companies. When providers were asked to identify the most commonly prescribed class of medicines, 45.5% identified sleep medicines followed by medication for depressive symptoms (22.7%).

A substantial percentage of BH personnel (80.0%) either **agreed** or **strongly agreed** with a statement about encountering situations involving medical ethics to which they did not know how to respond. Respondents encountering situations involving medical ethics has increased across MHATs (MHAT V: 60.8%, MHAT VI: 72.4%) and may suggest decision-making in the clinical arena is becoming more complex as the war progresses.

The second major issue brought forward was the impact of leadership on provision of BH services. One BH provider remarked that "the Commander sets the tone for the entire relationship" and those leaders who are unsupportive of BH services can place barriers (both subtle and overt) to their troops' access to care. Although BH personnel acknowledge that a majority of leaders are both supportive of BH care and work collaboratively with them, some BH providers perceive that some Commanders are concerned that SMs seeking care will result in decreased manpower to meet their mission.

J-MHAT survey data shows that BH personnel generally feel supported by both the medical community and Commands. Although BH personnel report understanding of how much information they can provide Commanders (J-MHAT 7: 82.1%), an area where support could be improved revolves around BH personnel reporting Commanders having limited satisfaction with the amount of information provided to them (MHAT V: 17.4%; MHAT VI: 13.3%; J-MHAT 7: 28.5%) and feeling that Commanders respect SM confidentiality (MHAT V: 50.0%, MHAT VI: 53.3%, and J-MHAT 7: 57.2%) regarding MH issues. The trend in both cases is positive but shows there are further opportunities for improvement.

Other areas emerging from the SM care theme included a) sleep problems and relationship/ family issues being more common triggers for seeking care than combat-related issues (see Section 5.7), b) medication management and follow-up challenging due to SM mobility, c) positive impact of pre-R&R meetings to discuss potential problems prior to return home, d) allowing non-doctoral providers to complete command-directed evaluations in theater, and e) needing to limit the ability of National Guard personnel to volunteer for repeated deployments without sufficient dwell time.

Provider/Technician Role. The second most frequent thematic area discussed involves the division of labor between the MH providers (graduates of professional training programs) and the MH specialists (graduates of military technical training programs). A general consensus

of BH staff regarding this issue was that Army providers and providers at smaller clinics allow their MH specialists more autonomy to provide individual care than at larger facilities. Air Force and Navy personnel in Level III settings operate from a more traditional MH clinic model where providers perform clinical duties while enlisted personnel manage administrative tasks along with facilitating psycho-educational classes. Experience levels of MH specialists were identified as a key consideration in deciding how much autonomy to allow the MH specialist. Senior NCOs were discussed as highly valued and able to meet a variety of needs for BH teams.

BH personnel also explored options to improve the provision of service. One strategy was to modify the current CSC model to better match the BCT model by embedding BH providers within units. This model was favored by many of the current BCT providers, since they felt being "an organic element rather than an individual augmentee brings you more credibility to the Command." One example of a successful integration of the 'dual provider' model is found at (b)(3):10 USC 130(b) where an Army BCT's organic BH team has been joined by an Air Force CSC team to meet the BH needs of the catchment area. The Air Force BH team, however, continues to fall under the leadership of (b)(3):10 USC 130 (b) CSC HQ.

BH staff noted many FOB clinics currently have two technicians in addition to dual providers, which allows one team to travel to remote locations while the other remains at the FOB. Most BH staff felt that placing organic assets at Level I COPs would spread BH assets too thin and would ultimately impact the ability to provide care across the ATO. Maintaining the current model with dual care teams (one CSC team and one organic BCT BH team) at the larger FOBs is seen as a strategy to integrate the CSC and BCT models of care in an efficient manner without losing command and control.

To further examine the area of concern regarding the extent that BH personnel were leaving their clinics to provide care at the SMs' location, a Chi-Square analysis was conducted for J-MHAT 7 to determine if a significant difference existed in the location that BH/COSC service were provided (either the SM's location or the BH clinic). Although the analysis shows that significantly more BH/COSC service are still being provided in a clinic setting (BH services: p. = .007; COSC services: p. = .007), there is an increasing tendency for BH personnel to "get out of their offices" and seek out SMs at their locations (e.g., 2009 BH at COSC: 80.0% vs 2010 BH at COSC: 61.9%; 2009 BH at SM Location: 13.3% vs 2010 BH at SM Location: 30.1%). Future MHAT studies should continue to review this trend to determine if a more outreach-oriented focus of care persists.

Preparation to Enter ATO: Pre-Deployment Training. The third most frequent theme centered on the lack of theater-specific pre-deployment BH training. Review of J-MHAT 7 BH survey data showed that 21.6% stated their pre-deployment training did not adequately prepare them for their COSC/BH mission. Adequacy of the current system of pre-deployment training appears to have been a difficulty which was mentioned in the past (MHAT V: 35% and MHAT VI: 13.3%).

During focus group interviews BH staff described a variety of venues they attended prior to deployment; none were described as being adequate to prepare them for their COSC mission. Training schedules varied by Service with Air Force and Navy personnel expressing the most concern about training content. BH staff reported "the training needs to be revamped....it's too generic and combat-related....we need more focused training, with time spent learning specific COSR-related information." BH staffs that were able to train as a team prior to deploying found

the experience valuable. A general recommendation coming from the focus groups was to "condense, combine, and sequence the training to better match the BH mission."

A final item discussed involves the need for all BH assets to attend the necessary training allowing them to arrive in theater 'mission-ready.' Historically, a large percentage of survey respondents have reported not attending pre-deployment training (MHAT V: 45.3%, MHAT VI: 83.3%, and J-MHAT 7: 32.5%) prior to arriving in the ATO. This is considered a limiting factor (i.e., cannot travel outside the wire) in the ability to use BH assets as needed throughout the ATO.

As noted above, a common frustration shared during focus groups was how consistently the training "missed the mark" and was not constructed around the needs of BH personnel. However, when survey data was reviewed it was found that 67.5% had attended training and 59.1% had found it adequate. To better understand the disconnect between focus group discussion and survey results, a cross-tabulation analysis was conducted to examine the question "If you attended COSC pre-deployment training, to what level did you feel prepared for your COSC duties?" Responses were broken down by Service affiliation to determine if Service was related to the perception of deployment preparation. Table 15.3.2 provides the results of this cross-tabulation.

Table 15.3.2: Pre-Deployment Training

	Army	Navy	Air Force
Percent who answered 'Yes' to both attending pre-deployment COSC Training Course (e.g. AMEDD) and receiving adequate training pre-deployment to prepare them for their COSC duties	78%	56%	60%

Table 15.3.2 provides a better understanding of the difference between the survey data and focus group responses. In general, Army personnel report feeling more prepared than their Air Force and Navy counterparts – a finding that was consistent with focus groups. Overall, these results suggest a need for more BH-oriented training to prepare BH personnel for their COSC mission particularly in cases where Service Members from one Service Branch (e.g., Air Force) may be in direct support of Service Members from another Service (e.g., Army).

Coordination of Care. The fourth most common theme entailed coordination of care. It is clear BH personnel have made great strides in reaching out to cover SM needs in the ATO. Despite this progress, an issue that consistently surfaced during focus group interviews was the perception of a disjointed BH system of care. BH personnel noted there are a variety of MH professional groups (i.e., embedded BH teams in BCT, CSC BH teams, Navy Mobile Care Teams (MCT) & Operational Stress Control and Readiness (OSCAR) teams, and Detention Facility (b)(3) 10 USC 130(b) teams) deployed to the ATO, with no single overarching authority to ensure these assets are optimally dispersed and utilized throughout the theater. Also, J-MHAT 7 BH survey responses noted there was a substantial drop (66.7% to 41.1%) from MHAT VI OEF to J-MHAT 7 OEF in the percentage of personnel feeling their higher HQ encourages feedback to the AOR regarding COSC/BH policies. Despite the decrease noted from the survey

responses, no specific information was mentioned during focus group interviews to provide context to this item.

To better meet this care coordination mission, a BH Consultant position was established following a recommendation from the 2009 MHAT VI OEF. The BH Consultant position serves an advisory role to medical and operational command. From the perspective of some of the providers, however, the advisory role of the Consultant results in some BH assets acting in an autonomous fashion without, as one BH provider stated, "a head chef with the power to allocate our resources as needed." Furthermore, providers note that there is also no requirement for all BH assets to report to the BH consultant, which limits visibility of all the BH personnel available to meet the COSC/BH mission. Contacts tend to be made on an informal basis with reliance being on the professionalism of BH personnel to create a positive working relationship.

Realistically, it is not feasible to provide a single BH entity with the ability to allocate BH resources from different medical and operational units (not to mention across different Services); therefore, it is important to ensure that a single entity maintains visibility of assets and regularly advises medical and operational command to continue the coordination of care and allow for efficient use of all BH resources in the ATO. Placing the BH Consultant position (b)(3):10 USC 130(b) under the Medical Corps leadership) and rotating this position on a tri-service basis with an O-6 Psychiatrist/Psychologist/Social Worker may also provide greater opportunities for collaborative work to meet the overall BH mission.

ATO Movement/Travel. The fifth focus group theme centered on travel. Group participants noted that difficulty travelling within the ATO presents one of the biggest barriers to providing BH services. A BH provider with deployment experience in both OIF and OEF stated "Afghanistan is more austere, more primitive, and more dangerous than Iraq." Although most 2010 personnel downplay the danger of travel (58.3% **disagree** or **strongly disagree** that travel is too dangerous), over one-fourth of the respondents identified arranging travel (28.6%) and mission cancellation due to difficulty arranging travel (26.5%) as problematic. A BH provider noted during a focus group interview that "travel in theater is next to impossible." The main struggles related to ATO travel involve the unpredictability of flights (many flights are cancelled or BH staff are bumped at last minute) which impact BH ability to visit outlying areas as consistently as desired. BH providers embedded in BCTs with organic aviation assets are generally able to access air travel more easily than non-attached personnel. Overall, BH staff report that air travel is preferred to MRAP convoy travel. Increasing travel priority for BH staff on missions to outlying areas would aid in meeting the goal of having BH personnel visit remote COPs and FOBs once or more every 30-40 days.

BH staff note that access to care is generally good at main hubs, but not as consistent elsewhere. Despite significant increases in BH personnel since last year, only 28.6% of J-MHAT 7 survey respondents feel there are sufficient resources in theater to cover the BH mission across the AOR. This response has increased from 2009 MHAT VI OEF personnel when only 16.7% saw the resources as sufficient.

15.3.3 *Expansion of Proximity, Immediacy, Expectancy (PIE) Concept*

We conclude this section by discussing two initiatives that have served to expand the proximity, immediacy and expectancy (PIE) concept within theater: Restoration Centers and mTBI clinics.

(b)(3):10 USC 130 (b) *Restoration Center.* As described in detail in the MHAT VI report, the first behavioral health Restoration Center in Afghanistan was opened on 1 February 2009 (b)(3):10 USC 130 (b) (b)(3):10 USC 130(b) Freedom Restoration Center (FRC) staff was interviewed to provide an update to MHAT VI OEF information related to their program. In brief, the FRC is a structured three to five day curriculum for service members with Combat Operational Stress Reaction (COSR). The goal of the program is to maximize the return-to-duty (RTD) rate of SMs who are temporarily impaired or incapacitated by stress related conditions. Service Members who participate in the program may be referred by a Combat Stress Control (CSC) or BH provider, Chaplain, Company Commander, or First Sergeant. The program promotes SM and unit readiness by enhancing adaptive, rather than maladaptive, stress reactions. The program of instruction teaches basic coping skills and focuses on secondary gains such as proper nutrition, sleep habits and sleep hygiene. In terms of outreach, the restoration center continues to be active in promoting their program through advertising in on the Armed Forces Network and distributing informational brochures. The OIC and OT travel to outlying FOB's to market their program and offer "stress tips" information.

Between February 1, 2009 (the date the center opened) and 31 December 2009, 152 SMs utilized the facility with a 98.68% RTD rate. From 1 January to 23 August 2010, 193 SMs have been seen with a 97% RTD rate (see table 15.3.3 for details). These numbers show an average monthly utilization census of 14 SMs (2009), with a 50% increase to 21 SMs thus far in 2010.

Table 15.3.3 (b)(3):10 USC 130(b) *Restoration Center - Service Member Utilization Demographics*

Demographic Characteristics	2009	2010
Male and female (# participants/percentages)	Male: 122 (80%) Female 30 (20%)	Male: 158 (82%) Female 35 (18%)
Branch of service	Army: 135 (89%) Air Force: 8 (5%) Navy: 6 (4%) Marines: 2 (1%) Canadian 1 (1%)	Army: 160 (83%) Air Force: 23 (12%) Navy: 9 (4.5%) Marines: 1 (0.5%)
Military Occupational Specialty (Five most frequent referral types)	Infantry: 23 (15%) Military Police: 17 (11%) Transport: 16 (10.5%) Cooks: 10 (6.5%) Fuels: 9 (6%)	Infantry: 35 (18%) Military Police: 16 (8%) Transport: 12 (6%) SFS: 10 (5%) Mechanics: 9 (5%)
Average number of Deployments	1st: 104 (68%) 2nd: 24 (15%) 3rd: 11 (7%) 4th: 8 (5%) 5th+: 5 (1%)	1st: 101 (52%) 2nd: 54 (28%) 3rd: 21 (11%) 4th: 9 (5%) 5th+: 7 (4%)
Referral Combat vs Non-Combat Related	Combat: 46 (30%) Non-Combat: 106 (70%)	Combat: 30 (15%) Non-Combat: 162 (84%) Unknown: 1 (1%)
Reasons for Restoration Center Referral (Five most frequent referral types)	Occupational: 79 (52%) Depression: 20 (13%) Relationship: 19 (12%) Anxiety: 7 (5%) PTSD: 6 (4%)	Occupational: 71 (37%) Adj. D/O: 38 (20%) Relationship: 29 (15%) PTSD: 14 (7%) Leadership: 11 (6%)

An issue that was raised during MHAT VI OEF (2009) was the lack of an intermediate reconditioning facility for those SMs who may need additional help (as recommended in FM 4-02-51, "Combat and Operational Stress Control – July, 2006). During the 2009 MHAT VI OEF report it was noted that there were only two CSC rehabilitative courses of action available in the ATO: (1) utilizing (b)(3):10 USC 130 (b) Freedom Restoration Center or, (2) evacuation to Landstuhl. Although no intermediate reconditioning facility has been developed to this point, additional restoration centers are scheduled to open within the next few months at (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) This would provide each major CSC BH hub with a program and allow for easier access to this needed service.

In addition, two Army Occupational Therapists (OT) and their trained "pet therapy" dogs (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) are currently deployed (b)(3):10 USC 130(b) to augment the care being provided at the restoration facilities. An option for future consideration would be the development of more intensive reconditioning facilities at the major hubs and pushing the restoration facility mission to the Level II facilities. This would meet the recommendation for an intermediate facility and locate the restoration centers even closer to the warfighter.

b) ATO Mild Traumatic Brain Injury (mTBI) Clinics. Concussive injuries resulting from improvised explosive devices (IED's) have become pervasive in OEF. To improve the medical and BH services related to these injuries, several mTBI clinics have recently been created to provide specialized evaluation and treatment of concussive injuries. Clinics (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) provide service across the ATO. The J-MHAT 7 team interviewed mTBI staff at (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) to gain a tri-service perspective on treatment strategies. Details regarding the overall goal/purpose, program structure, screening/treatment protocols, and results of each program are provided in Appendix C.

16. Theater Suicide Review

16.1 Demographics

Since the beginning of operations in the Afghanistan Theater of Operations (ATO) in 2001, there have been an increasing number of U.S. Army suicides across the Army as a whole; with 31 suicides as of 1 August 2010. Per the Army G-1 Suicide Prevention Program Manager, suicide population rates per 100,000 are not calculated for OEF due to the low number of cases. Although the number of suicides in Afghanistan is small, the annual counts are increasing. Table 16.1 presents annual suicide counts for OEF. In 2008, the OEF suicide count more than doubled compared to any previous calendar year. Slightly over half-way through 2010, the suicide count is on pace to be higher than any previous year (data obtained from USAFOR-A Casualty Affairs Office) although it should be noted that the surge has increased the population relative to other years. Suicide continues to be an important issue of concern.

Table 16.1. Suicides in Afghanistan Theater of Operations, CY 2001 - 1 August 2010

	Year									
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
US Army OEF	1	2	1	1	3	3	3	7	4	6*

*As of 1 August 2010

Firearms are the most lethal method of suicide (Shenassa, Catlin, Buka, 2003). Firearms and ammunition are part of the uniform in the ATO, thus Soldiers have easy access to a lethal means. During both 2007 and 2008 in OEF, each of the suicides were committed by a gun-shot-wound (GSW) versus other less imminent lethal methods that may result in an incomplete attempt at suicide. Of note, 5 of the 6 suicides in OEF 2010 to date were also by self-inflicted GSW (the remaining one was determined to be a drug overdose).

Table 16.1.1: Demographic Characteristics of Confirmed Soldier Suicides

	Year		
	OEF 2007	OEF 2008	*OEF 2010
Firearm	100%	100%	83%
Male	66%	86%	100%
Age < 30 yrs	100%	71%	66%
E1 - E4	100%	57%	16%
Non-While	0%	29%	33%

*As of 1 August 2010

In the U.S. Army, the highest risk population is generally considered to be a white male, less than 30 years of age, and residing in the junior enlisted ranks between E1 - E4. This is a trend that held in Afghanistan in 2007 and 2008, but has not held thus far in 2010. Only one suicide in 2010 was completed in the E-1 to E-4 rank category with the remainder being E-5 to E-8. Two of the suicides were committed by personnel over the age of 30 (with another two being age 29). This points to possible increased stress being experienced at the mid-grade level and not just at the junior enlisted level as noted from historical trends.

17. JOINT DISCUSSION AND RECOMMENDATIONS

17.1 Nature of Recommendations versus Considerations

As part of the MHAT process, it has become clear that recommendations are often used as benchmarks. The media, rightly so, is interested in how many of the recommendations are adopted. Unfortunately, the implication with focusing on the number of implemented recommendations is that failure to adopt a recommendation can be interpreted as a lack of responsiveness by the Military. In many cases, however, a failure to adopt a recommendation is because further examination produced additional information that led to a logical decision not to implement the recommendation.

For these reasons, J-MHAT 7 continues the practice of providing relatively few recommendations. The report, however, does provide "Considerations." These considerations include ideas that we believe warrant further examination and may ultimately be adopted; however, due to the complexity of the behavioral healthcare system, we do not formally propose them as recommendations. In this way, the report can give visibility to good ideas generated from providers in the field without requiring that ideas be implemented before receiving a thorough review.

17.2 Increasing Behavioral Health Coordination and Training

Areas seen as needing further refinement are the preparation of BH personnel prior to deployment into the ATO and the subsequent coordination and use of these assets once they arrive in theater (see Section 15). Strides have been made in both areas, but BH personnel continue to request adjustments that will make their work more effective and efficient.

In 2009, MHAT VI OEF recommended the appointment of a senior behavioral health consultant and a senior behavioral health NCOIC to USAFOR-A to provide theater-level strategic coverage and oversight of joint behavioral healthcare in the ATO. This recommendation was adopted and both positions are currently in place; however, there may be ways to strengthen this position leading to the first consideration. In addition, recommendations 1, 2 and 3 suggest other ways to facilitate greater coordination in theater and/or increase the ability of behavioral health personnel to perform their missions.

Joint Consideration 1: Ensure the theater Behavioral Health Consultant regularly advises medical and operational command about optimal mental health resource allocation in line with Service specific delivery models; consider making position a Joint billet.

Joint Recommendation 1: Initiate ATO MH Conferences. J-MHAT 7 OEF recommends that MH assets throughout the ATO hold periodic (at least annual) conferences for MH personnel to network with colleagues and exchange best practices. This conference can be coordinated by the MH Consultant and NCOIC and will likely aid in tri-service collaborative efforts.

Joint Consideration 2: Facilitate Behavioral Health travel by consider ways to prioritize travel for Behavioral Health personnel such as priority Space-A and routine access to bandage flights.

Joint Recommendation 2: Review MH pre-deployment training curriculums. J-MHAT 7 OEF suggests convening a tri-service task force to review all pre-deployment training currently being conducted and design a single curriculum to best meet the training needs of MH personnel being deployed to the ATO. For instance, providers see little value in extended training in operational skills such as clearing buildings, but seek additional training on theater-specific COSR skills.

Joint Recommendation 3: Continue Joint MHATs. Provision of care in the ATO is a joint effort where Air Force, Army, and Navy personnel combine forces to meet the MH mission. J-MHAT 7 OEF benefitted from this type of tri-service collaboration and recommends future MHATs continue with this model to conduct theater-wide MH assessments.

17.3 Concussive Event Management

The J-MHAT 7 report clearly identifies the prominence of potentially concussive events for both Soldiers and Marines in maneuver units. The prevalence of concussive events has led to a number of innovations to include three clinics devoted to treating SMs with mTBI/concussions. The motivation behind providing specialized treatment for SMs suffering from concussions is two-fold. First, there is broad recognition that repeated concussive events are associated with a number of significant long-term negative health consequences, particularly if there is little or no opportunity to recover between concussive events. Second, there is a recognition that the previous strategy of sending Soldiers to the rear for evaluations resulted in a long-term loss of the Soldier that was in many cases unnecessary (few Soldiers sent to Landstuhl ever returned to their units).

With this as a background, a key outcome measure reported by the local mTBI clinics is the return-to-duty rate. This is an important metric, because units would run the risk of becoming combat-ineffective if SMs were routinely evacuated given the prevalence of the potentially concussive events in theater (see section 5.4). At the same time, the challenge faced by the mTBI clinics is that there are few (if any) objective, scientifically established guidelines for determining the appropriate treatment regimen. Thus, the J-MHAT 7 team provides two recommendations:

Joint Recommendation 4: Conduct on-going in-theater research to establish best practices and standards. Greatest need is longitudinal studies from point of injury with appropriate controls (e.g. injured Soldiers who did not have head injuries).

Joint Recommendation 5: Continue funding of basic-research models of concussive and traumatic brain injury work to advance the development of novel evidence-based interventions.

In addition to providing recommendations targeted to broader and longer-term goals, it is important to recognize that several providers in the OEF theater are engaged in program evaluation efforts as part of their clinical practice. For instance, Navy providers at (b)(3):10 USC 130(b) (b)(3):10 USC 130 (b) have been using ANAM reaction time data to help inform clinical judgment regarding SMs mental health status following concussive events. As part of clinical treatment, the Navy personnel have been systematically (a) examining pre-deployment ANAM scores, (b) conducting and documenting successive ANAM tests, and (c) documenting other relevant information (e.g., approximate distance from blast) about SMs concussive events.

Figure 17.3 provides a discontinuous growth model analysis of some of the collected data. The statistical model used in the figure has been valuable in analyzing reaction time data from laboratory sleep studies (e.g., Rupp et al., 2009). In the case of the ANAM data, the results indicate that SMs who take the simple reaction time ANAM test on their first visit following a concussive event are approximately 150 msec slower, but over several measurement occasions reaction time speed increases. The increase in reaction time between the baseline and first post-concussive measurement is significant, as is the slope associated with the post-concussive event recovery. These data are consistent with many studies that show that neurocognitive impairment resolves rapidly (within 2 days) after concussion.

Figure 17.3: ANAM Reaction Time Data

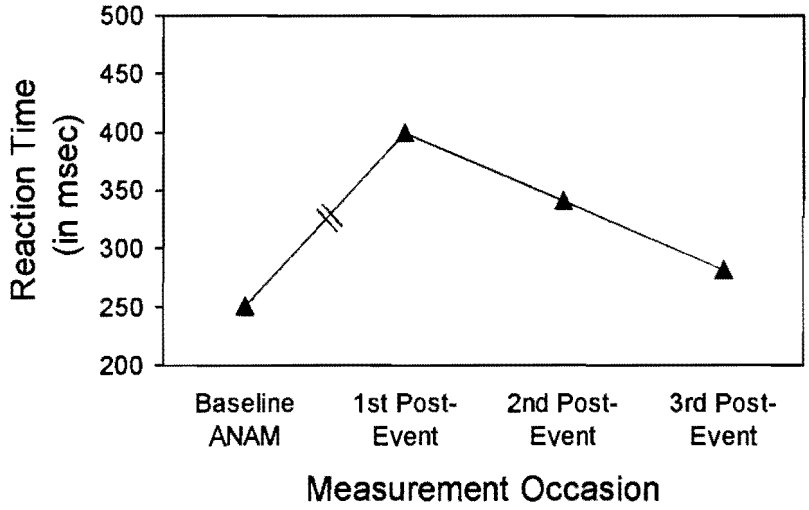


Figure 17.3 is exploratory and there are a number of limitations with the data to include the fact that it (a) may reflect characteristics of the testing location, (b) motivation rather than evidence of recovery from injury. In addition, the ANAM shows low test-retest reliability and practice effects. Therefore, the quality and reliability of "baseline" test data is questionable. Despite these limitations, there are several important aspects of the analysis. First, the magnitude of the initial change from baseline to first post-concussive event varies across individuals suggesting that variables such as proximity to the blast may be predictive of the change. Second, the recovery trajectory over measurement occasions randomly varies across individuals suggesting

that either characteristics of the event or individual (e.g., Service Member age) might be related to the trajectory.

The key point, however, is that ANAM data collection is already mandated, but many questions remain about its clinical utility. Therefore, systematic program evaluation and research data are necessary leading to the following recommendation:

> Joint Recommendation 6: Encourage program evaluation of in-theater neuropsychological testing approaches to include the ANAM and other automated tests (e.g. ImPACT) to inform clinical practice and identify promising practices in the care of SMs experiencing potentially concussive events. As part of this evaluation, facilitate the ability of mTBI clinics throughout the ATO to receive baseline ANAM data.

Finally, with respect to concussive event management, data from both Soldiers and Marines indicated that a low percentage of SMs reported being evaluated for potentially concussive events. This was particularly evident in the case of being within 50M of a blast. At the time of the data collection, the Directive-Type Memorandum DTM 09-033 was either not yet fully implemented, so the results are not surprising. Furthermore, from focus groups it appeared that Soldiers may not have considered an evaluation by their medic to be an evaluation by a "Medical Professional." Consequently, the findings lead to two recommendations and one consideration:

> Joint Recommendation 7: Ensure that questionnaire-based assessments of whether SMs have been evaluated (e.g., MHAT surveys) include a specific category for evaluations by "Medics or Corpsmen" in addition to evaluations by "Medical Professionals."

> Joint Recommendation 8: Emphasize the importance of having Medics and Corpsmen document post-concussive evaluations in Electronic Medical Records (EMR) regardless of outcome, and work to ensure compliance with directive to document evaluations.

> Join Recommendation 9: Continue to refine the DTM 09-033 evaluation criteria regarding distance from blast [within 50 meters of a blast (inside or outside)] as this standard may be overly conservative

17.4 Tele-Mental Health

Tele-mental health has been suggested as a force multiplier to be applied throughout the ATO. As an appendage to the Telemedicine initiative, Tele-Mental Health is being considered as a means to provide MH service to SMs unable to access this service by other means. This may be due to the SM being assigned to an outlying area without embedded BH assets or in need of medication consultation where a psychiatrist or psychiatric nurse practitioner is unavailable. J-MHAT 7 OEF found differing opinions related to this initiative when discussing it with SMs and MH personnel. To determine the efficacy of using Tele-mental health technology in the ATO, we provide the following recommendation:

Joint Recommendation 10: Conduct further evaluation of the use of Tele-Mental Health as an adjunct to MH service provision in the ATO by systematically addressing Service Members' access to and acceptance of Tele-Mental Health. J-MHAT 7 OEF recommends the focus be on uses related to peer-to-peer consultation and medication management/follow-up care with development of specific standard operating procedures related to its use.

17.5 Sleep Discipline

A large number of Soldiers and Marines identified high or very high concern about not getting enough sleep. Surveys also identify that a frequent reason given for sleep problems was related to the poor sleep environment. Given the importance of sleep in terms of (a) maintaining physical and mental well-being, and (c) sustaining performance, the J-MHAT 7 team recommends:

Joint Recommendation 11: Incorporate sleep hygiene and discipline into pre-deployment training. Emphasize that small unit leaders are responsible for implementing sleep discipline and mitigating factors that lead to poor sleep environments commensurate with unit location and circumstances (Reference COSC FM 6-22.5).

Joint Consideration 3: Evaluate the merits of freely accessible energy drinks in the ATO once the U.S. Army Research Institute of Environmental Medicine's survey of caffeine and dietary supplement intake in theater is completed.

17.6 Support Evaluation of Other Populations

The J-MHAT focuses on land combat units and has the capability and historic data to model changes occurring in maneuver units; however, other populations of SMs would benefit equally from assessment and monitoring. One particular high-risk group includes individual augmentees. The Navy Mobile Care Teams (MCTs) have routinely fielded a Behavioral Health Needs Assessment Survey (BHNAS) that has been coordinated to have high similarity with the MHAT survey. The Joint MHAT team recommends:

Joint Recommendation 12: Continue to support the Navy's BHNAS survey efforts and consider using the BHNAS survey to assess individual augmentees from other Services.

18. STATUS OF MHAT VI RECOMMENDATIONS

Table 18: Status of MHAT VI Recommendations

MHAT VI OEF Recommendation	Status	Comments
Increase Current Behavioral Health Staff	Green	Significant increases in the number of behavioral health staff have been implemented since 2009.
Maintain 1:700 Ratio through the Expected Force Surge and Deploy a CSC Detachment to RC South	Green	A fluxuating ratio at or below 1:700 has been achieved and maintained through the troop surge.
Implement Dual Provider BCT Model after Staffing Ratio Stabilization.	Green	In the last year, the Army has approved the increase of BDE behavioral health teams (2 officers and 2 enlisted) for every BDE in the inventory. The officers will be either social workers or psychologists. The authorizations will not start until 2012 and current MTOE's will not reflect this change until then. This will increase our provider force (officer and enlisted) by 1,033 personnel. In addition, the COSC units have converted to a modular unit structure generating 12 "teams" of one officer and 2 enlisted. There will no longer be "fitness teams" or "prevention teams" just the spread of 12 that can be combined to conduct whatever operation is needed. Finally, at the local-level within theater, there are a number of cases where Joint behavioral health assets (e.g., Air Force) have partnered with organic BH assets in BCTs to implement the dual-provider model.
Appoint Theater-Level Behavioral Health Consultants	Green	However, see the J-MHAT 7 consideration to make this position Joint and provide more authority to allocate resources as appropriate within Service Specific delivery models.
Develop, Validate, and Deploy Resilience Training for At-Risk Groups	Amber	Training continues to be developed. The empirical testing of the training still continues to lag in many instances.
Allocation of Battalion-Level Behavioral Health Advocates	Amber	Done at a local level, but not Universally applied.
Augment Combat Lifesaver Training	Red	CLS is focused on tactical combat casualty care for the non-medical Soldier. This training may be the only time the non-medical Soldiers get training for saving lives of Soldiers. Upon consideration, other training programs are likely to be better venues for behavioral health focus.
Assign Permanent Behavioral Health Personnel to National Guard Units.	Green	This change was made in 2009.

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APPENDIX B: NAVY/MARINE DOCTRINE AND IMPLEMENTATION IMPLICATIONS

MARINE CORPS/NAVY CONTEXT FOR PARTICIPATION IN THE J-MHAT

The current J-MHAT VII was conducted chronologically commensurate with rapidly developing Navy and Marine Corps COSC, Behavioral Health, and Mental Health initiatives implemented collaboratively between Navy Medicine and the Navy Line in close conjunction with Headquarters Marine Corps Manpower and Reserve Affairs (M&RA). Navy Medicine implemented its first dedicated COSC and Deployment Health directorate at the Navy Bureau of Medicine and Surgery (BUMED) in November, 2006 and expanded/refined its COSC ideology and concepts from 2007 to 2010 resulting in dedicated programs targeting Occupational Stress for Caregivers (cgOSC), Navy Line Operational Stress Control (OSC) for Navy Line Personnel, and Combat Operational Stress First Aid (COSFA) for any Naval (Navy and Marine Corps) contingencies. From 2006 to the implementation of J-MHAT VII, the Marine Corps and Navy jointly developed the current combined draft Navy/Marine Corps Combat/Operational Stress Control doctrine (MCRP 6-11C/NTTP 1-15M DRAFT) to directly contribute to factors impacting resilience, behavioral health, and mental health identified by simultaneous MHAT surveys.

J-MHAT 7 is the first formal Joint Services iteration of the project but the third MHAT to procure Marine Corps data. MHAT first obtained Marine data from 449 Marines in Iraq during Operation Iraqi Freedom (OIF) from August to October, 2006 (MHAT IV) and again from 446 Marines in OIF from October to November, 2007 (MHAT V). J-MHAT VII, from July to September 2010 (the current MHAT) constitutes the first Marine Corps data obtained in Afghanistan during Operation Enduring Freedom and obtained data from 335 Marines.

DISCUSSION

(Adapted from Navy/Marine Corps Combat/Operational Stress Control doctrine (MCRP 6-11C/NTTP 1-15M DRAFT)

In 2007, the commanding generals of the three Marine expeditionary forces (MEFs) convened a working group of Marine leaders, chaplains, and medical and mental health professionals to develop a new Combat/Operational Stress (COS) model, the stress continuum model, for the Marine Corps. The three MEF commanding generals called for a new stress continuum model that would be unit leader oriented, multidisciplinary, integrated throughout the organization, without stigma, consistent with the warrior ethos, and focused on wellness, prevention, and resilience. several inter-related elements define the culture change toward COS and COSC in the Marine Corps: the concept of "caregiver" in this context refers to medical personnel (from Corpsmen to physicians), clinically and non-clinically trained Chaplains, religious program specialists, and family service professionals. There are three core objectives in the program: early recognition of caregivers in distress, breaking the code of silence related to occupational stress reactions and injuries, and engaging caregivers in early help as needed to maintain mission and personal readiness.

The product of the tri-MEF working group was the stress continuum model which has since become the foundation for all COSC and OSC doctrine, training, surveillance, and interventions in both the Marine Corps and Navy. The stress continuum model is a paradigm that recognizes the entire spectrum of stress responses and outcomes and includes adaptive coping and

wellness (color coded green as the ready zone), mild and reversible distress or loss of function (the yellow reacting zone), more severe and persistent distress or loss of function (the orange injured zone), and mental disorders arising from stress and unhealed stress injuries (the red ill zone).

The Combat and Operational Stress Continuum Model

The fundamental idea behind the stress continuum model is that stress tends to push individuals toward the yellow, orange, or red zones. The goal of all COSC and OSC is to keep Service members, units, and families in the green "ready" zone as much as possible and to return them to that zone as quickly as possible after leaving it. All COSC and OSC actions and tasks discussed focus on shifting individuals to the left (i.e., toward an increased pre-clinical intervention infrastructure) on the stress continuum model.

Monitoring and managing the stress continuum model is primarily the responsibility of unit leaders, but individual Marines, Sailors, and their family members also bear responsibility for continuously monitoring and managing the stress continuum model for themselves, their buddies or shipmates, and their spouses and children. Unit and base religious ministry personnel are crucial to keeping war-fighters and family members in the green zone and recognizing yellow zone reactions and orange zone injuries. The further to the right (toward the formal clinical illness zone) in the stress continuum model individuals are pushed by combat or operational stress—the deeper into the orange or red zones they get—the more medical and mental health professionals become important for returning those individuals to green zone wellness. For Marines or Sailors suffering from diagnosable red zone mental disorders, such as PTSD, depression, or anxiety, unit leaders remain crucial for recovery and reintegration.

Core Leader Functions

The Navy-Marine Corps stress continuum model provides a framework for understanding and recognizing the spectrum of stress experiences and symptoms. This model, by itself, cannot improve the psychological health of Marines or Sailors or meet the two COSC and OSC objectives of preserving force readiness and maintaining individual health and well-being. In order to use the stress continuum model toward those ends, the Marine Corps and Navy have established five core leader functions for COSC and OSC across the stress continuum model: *Strengthen* (create confidence/ forewarn; inoculate to extreme stress; and foster unit cohesion), *Identify* (know unit and individual stress load; recognize reactions, injuries, illnesses), *Mitigate* (Remove unnecessary stressors; ensure adequate sleep and rest; after-Action Reviews [AARs] in small groups); *Treat* (rest and restoration [24-72 hours]; use services of chaplains, BH/MH or medical providers as needed); *Reintegrate* (keep with unit if at all possible; expect return to full duty; don't allow retribution or harassment; continuously assess fitness; communicate with treating professionals [both ways]).

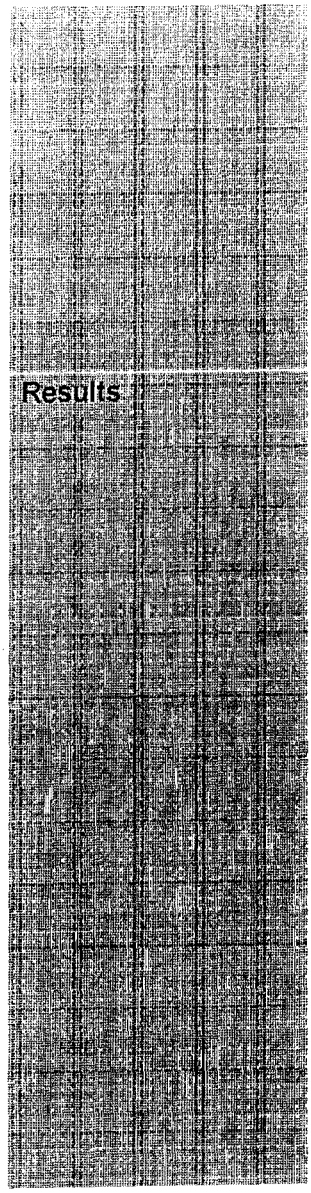
Leaders in both the Navy and the Marine Corps are expected to implement tools for teaching and for professional discussion about combat and operational stress control. The DRAFT Marine Corps Reference Publication 6-11C, *Combat and Operational Stress Control* (MCRP 6-11C/NTTP 1-15M DRAFT), was developed not to be clinical in nature but to focus on the leadership responsibilities involved with preserving psychological health in Service members. The doctrine provides leaders fundamental understanding in the value of recognizing and addressing combat and operational stress issues from the most fundamental platoon levels and addresses why such skills are so essential to the well-being of Marines and Sailors. The effects of appropriate stress treatment are understood to extend not only before, during, and after

combat and other operations, but also throughout the careers of Marines and Sailors and after their separation from the military.

While the DRAFT Marine Corps Reference Publication 6-11C, *Combat and Operational Stress Control* (MCRP 6-11C/NTTP 1-15M DRAFT) is currently pending final authorization, Navy Medicine has implemented programs to deliver COSC core competencies to Navy Corpsmen, Naval Medical Treatment Facility (MTF) medical, mental health, and behavioral health providers, and Combat/Operational Stress Control (COSC) specialists.

APPENDIX C: mTBI CLINIC OVERVIEW

Mild Traumatic Brain Injury Clinic Overview	(b)(3):10 USC 130(b)	(b)(3):10 USC 130(b)	(b)(3):10 USC 130(b)
Overall Goals/Purpose	Structured similarly to a BH Restoration Center; Provides SM's with suspected mild TBI or concussion up to 21 days observation and rehabilitative care; Provides a point of rehabilitation care close to units to minimize the need for medical evacuation to a higher echelon of care; Goal to maximize the return-to-duty (RTD) rate.	The mTBI clinic was formally created on 1 September 2010; however, even before the creation of the mTBI clinic, Navy behavioral health personnel have been actively engaged in the diagnosis and treatment of Service Members with concussions using existing mental health services. The goal of the new mTBI clinic mirrors those of (b)(3):10 USC 130(b)	Purpose of program is to provide evaluation & treatment at (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) for patients that would previously have been Medevac'd (b)(3):10 USC 130(b) (b)(3):10 USC 130(b) for more intensive care. The overall goal for the program is eventual return to duty (RTD) for each referred service member.
Program Structure	Capacity for 10-12 SM's w/ ability to house males and females in semi-private rooms. Average SM seen is an 18-24 year old junior enlisted male, but NCOs and Officers have also utilized the clinic. Used most heavily by Army SM's, but also a small number of Air Force personnel. The clinic staff consists of one Occupational Therapist (O-3), a NCOIC (E-5), and a Nurse (O-3). Work closely w/ Combat Stress Center in offering classes (stress management, coping skills, etc.) as a part of their schedule.	The program structure of the new mTBI clinic is similar to other programs. The clinical staff include a Sports Medicine Physician (06), a Physical Therapist (05), an Occupational Therapist (04), a Neuropsychologist (04) and a Psychiatrist (04).	Capacity to house up to 12 SM's w/both males and females eligible for care. Will begin operating out of the Flight Medicine Clinic in Sept 2010. The staff consists of one neurologist, one neuropsychologist, one physical therapist, and two MH Specialists. Members (b)(3):10 USC 130(b) have the option to remain with their units rather than stay in (b)(3):10 USC 130 (b) (b)(3):10 USC 130 (b) SM's remain on limited duty "inside the wire" while in the program which can last up to 30 days. Treatment is based on attendance of a series of individual and group appointments focused on treatment of the presenting problem.
Screening/Treatment Protocols	SM's w/suspected TBI are required to be screened by a medical professional. Medics are trained to use the Military Acute Concussion Evaluation (MACE) and conduct cranial nerve exams. The Automated Neuropsychological Assessment Metrics (ANAM) is not used due to lack of access to pre-deployment test results. SM's screening positive on the MACE are sent to the mTBI clinic for 24 hour observation. Strict schedule w/ no access to television, video games, or music enforced (15 minute computer use allowed during first 24 hours). Those w/ no red flags are placed on 24-hour quarters and re-evaluated the next day. Those entered into the mTBI	Acute concussion cases typically arrive by MEDEVAC. SM's are taken to the clinic and evaluated by medical staff. Once medically cleared, TBI evaluation is performed. For intake screening, a one-page information sheet is used followed by a SM interview to elaborate on presenting symptoms. For acute cases, a MACE is administered up to 24 hours after the blast, then a neurological screening, and then the ANAM as a secondary assessment. For TBI patients, neurological screening is conducted with the neuropsychologist. The ANAM is viewed as an invaluable tool due to access to baseline scores that were	The neurologist screens SM's for program appropriateness and arranges care. The majority of referrals are Explosive Ordnance Disposal team members that have been exposed to an IED blast. Intake paperwork is completed along w/a CT scan to rule out medical injury. A series of four appointments are then arranged for initial neurologist and neuropsychologist meetings and for neuropsychological testing. SM's complete ANAM testing w/ pre-deployment results obtained for a baseline comparison. SM's also given Neurobehavioral Symptoms Inventory (NSI) and PTSD Checklist - Military (PCLM) as part of the basic screening



treatment protocol begin a highly structured program (regular sleep hours, meals, accountability, proper military bearing, standards and uniform wear, evaluation, and rehabilitative care). SM's retested and, if symptom free, are RTD. If symptoms persist, the SM is retested until a) they can RTD or b) medical evacuation occurs. SM's are not placed in a RTD status until asymptomatic.

In the year prior to the clinic opening (b)(3) 10 USC 130 (b) staff report 165 SM's w/ suspected mTBI/concussion were evacuated to the rear and none were RTD. Since the clinic opened, all 222 SM's referred to the clinic were RTD within 21 days of arrival. SM's provided an exertion test and cranial nerve exam prior to release and have a convenient location near their unit to get follow-up care as needed. Commanders love the program since it allows their personnel time to recuperate in a setting close to the fight where they can receive 24 hour observation, evaluated, and treatment. The clinic staff also believes that service members prefer to stay close to their units and would rather not be sent back to the rear. An additional tent is needed to provide the space required to conduct rehabilitation away from sleeping quarters. The mTBI Clinic has been visited by AFN, Stars and Stripes, as well as several VIP groups (b)(3) 10 USC 130(b) (b)(3) 10 USC 130(b)

collected pre-deployment before service members are exposed to any blasts. After service members experience blast trauma the pre-deployment ANAM is compared to their current cognitive performance to determine any loss of functioning or performance. ANAM scores are then tracked over time to see how a service member is progressing in rehabilitation.

(b)(3) 10 USC 130(b) staff report there have been 600 suspected cases of concussion (b)(3) 10 USC 130 (b) since April 2010. All have needed evaluation for possible TBI with a considerable number requiring ongoing care for TBI and combat stress reactions.

package. SM's needing a more intensive evaluation complete a 4-hour testing package. Results are discussed w/ neuropsychologist and SM scheduled for a 4-session "Post-Concussion Recovery Group". Following group completion, SM's are followed on an individual basis until ready to RTD. The mTBI staff report focus on "treating the symptoms and allowing time for the brain to heal".

Twenty service members have been seen at the MTBI clinic with only one requiring Medevac out of theater (95% RTD rate (b)(3) 10 USC 130(b) staff will continue to collect data on program outcomes to determine their effectiveness in meeting the program goals/purposes.

APPENDIX D: BEHAVIORAL HEALTH SURVEY RESULTS

STANDARDS OF CLINICAL CARE (% AGREE)	MHAT 5 OEF	MHAT 6 OEF	MHAT 7 OEF
The standard of BH care in this theater or Area of Operations are clear	60.8%	76.7%	***76.2%***
The standards of COSC services in this theater or Area of Operations are clear	56.5%	76.3%	***66.7%***
The standards for clinical documentation in this theater or Area of Operations are clear	30.4%	46.6%	***65.5%***
The standards for records management in this theater or Area of Operations are clear	26.1%	36.7%	***52.4%***
The standards for transfer of clinical BH information between levels of care in this theater or Area of Operations are clear	30.4%	73.4%	***39.7%***
Commanders are satisfied with the amount of information I can provide	17.4%	13.3%	***28.5%***
I encountered situations involving medical ethics in this AO to which I did not know how to respond	60.8%	72.4%	***80.0%***
The standards of how much patitent information I can share with commanders is clear	73.9%	73.4%	***82.1%***
RESOURCES FROM COMMAND / COORDINATION (% AGREE)			
My higher headquarters provides us with the resources required to conduct our BH or COSC mission	52.2%	50.0%	***44.7%***
My higher headquarters encourages us to provide feedback/comments to theater/Area of Operations BH or COSC policies	60.9%	66.7%	***41.1%***
We coordinate or integrate our BH or COSC activities with the Unit Ministry Teams in our Area of Operations	65.2%	66.6%	***70.6%***
We coordinate or integrate our BH or COSC activities with primary care medical personnel in the battalion aid stations or medical companies	91.3%	86.7%	***83.5%***
COMBAT AND OPERATIONAL STRESS / BH SERVICES (% AGREE)			
During this deployment how frequently did you:			
provide COSC outreach services (weekly)	30.4%	63.3%	***54.9%***
conduct educational classes (weekly)	17.3%	33.3%	***43.4%***
consult with unit leaders (weekly)	56.5%	67.8%	***67.5%***
conduct Battlemind psychological debriefings (monthly)	17.3%	30.1%	***22.8%***
conduct psychological debriefings (CED/CISD; monthly)	39.0%	17.2%	***25.0%***
conduct systematic unit needs assessments (every 2-3 months)	34.7%	23.3%	***16.7%***
conduct Suicide Prevention Training (monthly)	13.0%	30.0%	***22.9%***
provide one-to-one BH counseling with Service Members at their worksite (weekly)	31.8%	13.3%	***30.1%***
provide one-to-one COSC services with Service Members at their worksite (weekly)	26.0%	23.3%	***32.1%***
provide one-to-one BH counseling with Service Members at the BH/COSC unit location (weekly)	91.3%	80.0%	***61.9%***
provide one-to-one COSC services with Service Members at BH/COSC unit location (weekly)	65.2%	83.4%	***65.0%***

CONFIDENCE IN SKILLS AND TRAINING (% AGREE)	MHAT 5 OEF	MHAT 6 OEF	MHAT 7 OEF
I feel confident in my ability to:			
use the COSC Workload and Activity Reporting System (COSC-WARS)	13.0%	66.6%	***39.0%***
help Service Members adapt to the stressors of combat or deployment	100.0%	93.3%	***95.2%***
evaluate and manage Service Members with suicidal thoughts or behaviors	100.0%	96.6%	***91.6%***
evaluate and manage Service Members with Substance Abuse or Dependence	60.9%	63.4%	***69.1%***
evaluate and treat Combat and Operational Stress Reaction	100.0%	93.4%	***91.7%***
evaluate and treat Acute Stress Disorder or PTSD	91.3%	93.3%	***88.1%***
evaluate and treat victims of sexual assault	82.6%	62.0%	***70.3%***
perform clinical evaluation and treatment of detainees	26.0%	10.0%	***26.2%***
COMBAT AND OPERATIONAL STRESS COURSE TRAINING (% AGREE)			
I attended pre-deployment COSC Training Course (e.g. AMEDD)	56.5%	16.7%	***67.5%***
I received adequate training pre-deployment to prepare me for my COSC duties	45.0%	50.0%	***59.1%***
STIGMA AND BARRIERS TO CARE (% AGREE)			
The medical leadership does not support BH/COSC outreach	13.0%	0.0%	***15.6%***
The supported units leadership does not support BH or COSC outreach	8.6%	3.3%	***16.7%***
There is inadequate transportation to conduct outreach activities	39.1%	23.3%	***44.1%***
There is inadequate communication between BH or COSC and supported units	17.3%	23.4%	***21.0%***
Service Members feel uncomfortable talking to BH or COSC personnel about their problems	21.7%	16.7%	***25.0%***
BH or COSC personnel are unfamiliar with supported unit leadership and Service Members	26.1%	13.3%	***7.2%***
Traveling to supported units is too dangerous	26.0%	6.7%	***11.9%***
Arranging travel to supported units is too difficult	39.1%	30.0%	***28.6%***
The inability to arrange convoys has led to mission cancellations	52.2%	40.0%	***26.5%***
BH or COSC personnel do not like to perform outreach services	21.7%	6.7%	***11.9%***
BH or COSC personnel are not trained to conduct outreach services	30.4%	3.3%	***18.1%***
BH or COSC personnel are not available due to performing non-BH or COSC missions	17.3%	6.7%	***10.8%***
BH or COSC personnel do not think preventive outreach activities are effective	21.7%	3.3%	***4.8%***
Commander's support BH provider recommendations for medevac out of theatre	56.5%	50.0%	***53.5%***
Commanders respect patient confidentiality when it comes to mental health issues	50.0%	53.3%	***57.2%***
There are sufficient BH assests in theatre to cover the mission across the AO	47.8%	16.7%	***28.6%***

SERVICE MEMBER NEEDS (% AGREE)	MHAT 5 OEF	MHAT 6 OEF	MHAT 7 OEF
How often do you:			
talk informally to the Service Members	82.6%	63.3%	***86.9%***
conduct focus groups with Service Members	8.7%	17.2%	***15.6%***
talk with the chaplains	69.5%	73.4%	***70.3%***
talk with the units commander	73.9%	73.4%	***69.0%***
talk with the units medical personnel	86.9%	63.3%	***80.8%***
use validated surveys or instruments	34.8%	10.0%	***30.9%***
use locally developed surveys or instruments	17.4%	16.7%	***21.7%***
develop a BH or COSC unit prevention and early intervention plan	36.4%	23.4%	***36.9%***
conduct Command Consultation	60.9%	60.0%	***56.0%***
PERSONAL WELL-BEING (% AGREE)			
My ability to do my behavioral health job is impaired by the stressors of deployment or combat	4.3%	3.3%	***9.5%***
My mental well-being has been adversely affected by the events I have witnessed on this deployment	13.0%	6.6%	***13.1%***
My spiritual well being has been adversely affected by the events I have witnessed on this deployment	4.3%	6.6%	***9.6%***
Since this deployment, I have become less sensitive to the needs of the Service Members I serve or support	4.3%	6.6%	***14.3%***
My ability to do my job is impaired by listening to the combat experiences of Service Members I have talked with while performing my BH or COSC mission	4.3%	3.3%	***4.8%***
Rate your personal morale (High)	65.2%	63.4%	***53.5%***
Rate your energy level (High)	43.5%	60.0%	***52.3%***
Rate your level of burnout (Low)	52.2%	56.6%	***45.2%***
Rate your motivation (High)	73.9%	66.7%	***60.2%***
PSYCHIATRIC MEDICATIONS (% AGREE)			
The procedures for ordering or replenishing psychiatric medications in this theater or Area of Operations are clear	64.3%	10.0%	***30.0%***
In general, there has been adequate availability of appropriate psychiatric medications in the area of operations	61.5%	28.6%	***86.2%***
There has been adequate availability of appropriate psychiatric medication at Level I (Battalion Aid Station)	53.8%	28.6%	***56.5%***
There has been adequate availability of appropriate psychiatric medication at Level II (Forward Support Medical Company)	54.5%	28.6%	***71.4%***
There has been adequate availability of appropriate psychiatric medication at Level III (Combat Support Hospital)	84.6%	14.3%	***100.0%***

APPENDIX E: BEHAVIORAL HEALTH FOCUS GROUPS

Several additional areas were brought up during focus groups by BH professionals as concerns they wished the J-MHAT team to represent on their behalf. This section will explore the information obtained from the remaining survey and focus group interviews.

18.1.1 *Special Programs*

There are several new initiatives either in the beginning stages or being considered for use in the ATO. Focus groups were asked to comment on their perceptions of these programs and their utility/value as adjuncts to BH care. Focus group participants viewed (b)(3):10 USC 130 (b) Freedom Restoration Center in positive terms and look forward to the opening of the (b)(3):10 USC 130(b) Restoration Center in 2011. These facilities are seen as valuable ways to provide SMs an opportunity to step away from their units for a brief time to reset and subsequently resume their missions. Some FOBs have developed their own "quasi-restoration" programs to allow SMs to reset while remaining close to their units.

There were varied thoughts regarding the use of Tele-Mental-Health (TeleMH) services in the ATO. TeleMH is part of a proposed Telemedicine service that is intended to link providers with SMs or other providers via video-teleconference technology. MH personnel saw possible value for this service in the areas of provider-to-provider consultation, medication follow-up/ management, and as a means to reach outlying areas that are difficult to reach. However, many concerns were voiced including a) the confidentiality/security of the system, b) basic infrastructure to allow it to work properly, c) location and affiliation of the provider, and d) legal/ethical concerns. SMs interviewed voiced similar concerns with the exception of legal/ethical issues. They noted that in the areas where TeleMH might be valuable (e.g. - COPs with no embedded MH assets), there is also very poor internet connectivity to be able to access such a service. One SM when asked about using TeleMH stated "Why can't the dude show up where I'm at? I call horse s**t on that." Both SMs and MH personnel reported difficulty with the lack of personal connection afforded through TeleMH. The overwhelming majority of MH providers and SMs reported they did not see TeleMH as a viable option for providing individual counseling services in the ATO.

18.1.2 *Resources*

The resources section is comprised of three main topics – a) lack of office space, b) need for more equipment, and c) documentation issues. While 44.7% of the 2010 survey respondents either **agreed** or **strongly agreed** that their higher HQ is providing the necessary resources for their mission, 30.6% either **disagreed** or **strongly disagreed** that resource support is provided. This has been a consistent area of concern across the last three MHAT studies.

Limited office space both impacts the ability to provide care and to do so in a generally private manner. One BH staff member remarked "We're just stepping all over each other." Other BH personnel stated they are meeting with SM's in bunkers and gazebos for individual counseling due to lack of space. Seeking MH care can be difficult for many SMs and the lack of a private space to meet with BH staff can be yet another deterrent to reaching out for care. A dearth of needed equipment (computers, printers, phones, ink cartridges) was described as an additional factor that slows down the overall work process. This is particularly evident at more remote locations where BH staff must rely on the FOB brigade/battalion to obtain basic supplies.

Clinical documentation is challenging due primarily to two factors – a) lack of training on theater documentation requirements and b) software programs that "don't talk to each other." Review of the 2010 J-MHAT BH survey data revealed that the majority of personnel (65.5%) reported feeling comfortable in their understanding of documentation standards. Focus groups noted, however, that understanding of standards does not automatically translate to competency of use. An example comes from survey responses regarding the use of the COSC-Workload and Reporting System (COSC-WARS). Only 39% of the respondents reported either **agreeing** or **strongly agreeing** with feeling confident in the use of this system. This is a decrease from 66.6% in MHAT VI OEF and suggests a need for training and software upgrades related to this area.

18.1.3 *Well-Being/Safety*

BH providers spoke both of the well-being of the SMs they treat and their BH colleagues during focus group interviews. The items of most concern were the problems of multiple deployments, deployment length, and insufficient dwell time, which they believe have a detrimental impact on SMs (see Section 6.4). In addition, BH providers expressed concern about SMs assigned to security forces/guard duty positions due to the very stressful nature of their mission and the extended length of their shifts. BH personnel suggested increasing staffing to allow decompression time between shifts.

One outcome from the J-MHAT 7 BH surveys is reflected in the noticeable increase in percentages of BH personnel who reported low/very low morale (11.9% vs 3.3% in 2009), energy levels (15.5% vs 6.7% in 2009), and motivation (12.0% vs 3.3% in 2009) compared to 2009 MHAT VI data. Despite these changes, reported rates of high/very high burnout remain fairly constant (20.2% vs 23.3% in 2009) over time. Nevertheless, BH personnel report few negative personal outcomes from their COSC/BH deployment. Although very few respondents **agreed** or **strongly agreed** that their deployment experience in 2010 adversely impacted their mental (13.1%) or spiritual (9.6%) well-being, or ability to do their jobs (9.5%), the percentages seen this year are higher than noted in past MHATs in the ATO. This suggests that although BH personnel still seem to be managing their emotional response to deployment well, there exists a trend in the data that should be followed in future studies to determine if supportive intervention may be needed. One BH provider suggested limiting deployments across the board for BH personnel to 6-months to decrease the risk of professional burn-out and compassion fatigue. A final point that was discussed was the need to pair female providers with another female when traveling to remote sites.

A final area to be discussed further is the personal well-being of BH personnel deployed to theater. A slight increase across MHATs was noted in relation to adverse effects of deployment on BH personnel (morale, energy, burnout, motivation). For example, reported rates of high morale (rating of morale as either high or very high) have dropped each MHAT BH survey from 65.2% (2007) to 53.5% (2010). Reported adverse effects increased for each question in J-MHAT 7 OEF when compared to previous years. Although these numbers remain rather low at present, they are worth monitoring to determine if the dual impact of a) caring for SMs increasingly exposed to traumatic events and b) doing so in an environment ("the tip of the spear") where BH personnel are being placed in harm's way more so than in the past is slowly taking a toll on providers/technicians generally unaccustomed to such risks.

18.1.4 *Communication/Education*

Two major areas constitute the communication/education theme. The first involves better understanding of each other's missions by both BH personnel and BDE commands. BH

personnel reported finding the structure of commands confusing and were at times unsure who would be the proper person in the chain of command to approach with questions/concerns. They also noted some leaders appear confused about how to access BH services for their SMs (i.e. – may send SM involuntarily for care or mandate SM must go through command channels before accessing BH services). BH personnel report that an improved liaison between BH and command will lead to recognition that both have the same goal of keeping SMs in theater.

The second topic within the communication/education area speaks to providing more education regarding the rationale behind the current rules of engagement. BH personnel have noted that many SMs seek care due to frustration over perceived powerlessness to proactively engage the enemy. They feel they must wait to be attacked before they are able to respond with force. One BH staff member remarked "If they really understood what the COIN (counterinsurgency) mission was, it might help."

18.1.5 *Prevention/Outreach*

The responses to the 2010 J-MHAT 7 survey indicated that 54.9 - 67.5% of BH personnel provide outreach/education to SMs and unit leaders at least once per week. This response has remained fairly consistent over the past two MHAT OEF studies. There were several discussions during the focus groups about ways to improve prevention/outreach services. A focus group participant felt the overall mindset for optimal COSC service is to substitute the "garrison/clinic mentality for a greater focus on reaching out to troops where they work and live." The J-MHAT 7 data noted a trend in services increasingly being provided at the worksite with a corresponding decrease in relying solely on clinic based visits compared to previous MHAT studies.

One provider recommended development of an outreach kit as a standard issue item for all BH staff. This kit would be stocked with materials needed to maximize visits to outlying areas (such as educational handouts, medications (for prescribing providers), discs loaded with Power Point presentations of BH-related topics).

(b)(3):10 USC 130(b)

Challenges inherent in providing clinical services in detention facilities have been addressed in past MHAT studies (MHAT VI OEF - 2009). One of the primary struggles is how best to support the detention security force due to the long work hours and hostile working conditions they experience in managing the detainee population. MHAT VI OEF summary of findings related to the detention facility stated "these types of units are a particularly at-risk group for behavioral health problems based on its high stress mission" (pg 57). These challenges appear to remain at this writing.