Mental Health Advisory Team (MHAT) IV
Operation Iraqi Freedom 05-07

FINAL REPORT

17 November 2006

Office of the Surgeon
Multinational Force-Iraq

and

Office of The Surgeon General
United States Army Medical Command

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY.....3

II. BACKGROUND.....6

III. SOLDIER & MARINE MENTAL HEALTH AND WELL-BEING.....7

IV. BATTLEFIELD ETHICS.....34

V. MILITARY TRANSITION TEAMS MENTAL HEALTH
AND WELL-BEING.....43

VI. BEHAVIORAL HEALTH CARE SYSTEM ASSESSMENT.....45

VII. SUICIDE PREVENTION PROGRAM REVIEW.....66

VIII. STATUS OF MHAT III RECOMMENDATIONS.....74

IX. DISCUSSION.....76

X. CONSOLIDATED RECOMMENDATIONS.....82

XI. REFERENCES.....87

XII. BATTLEMIND TRAINING SYSTEM.....89

APPENDICES

EXECUTIVE SUMMARY

Introduction

The Mental Health Advisory Team (MHAT) IV was established by the Office of the U.S. Army Surgeon General at the request of the Commanding General, Multi-National Force-Iraq (MNF-I). The mission of MHAT IV was to (a) assess Soldier and Marine mental health and well-being, (b) examine the delivery of behavioral health care in Operation Iraqi Freedom (OIF), and (c) provide recommendations for sustainment and improvement to command. The MHAT IV assessed the mental health of the deployed force from 28 AUG to 3 OCT 06. Recommendations are based on findings from anonymous Soldier (N = 1,320) and Marine (N = 447) surveys, and on behavioral health, primary care and unit ministry team surveys; focus group interviews with Soldiers and Marines, as well as interviews and focus groups with Army and Navy behavioral health personnel; various secondary sources; and personal observations by team members.

Central Findings

1. Not all Soldiers and Marines deployed to Iraq are at equal risk for screening positive for a mental health problem. The level of combat is the main determinant of a Soldier's or Marine's mental health status.

2. For Soldiers, deployment length and family separations were the top non-combat (deployment) issues; due to shorter deployment lengths, Marines had fewer non-combat deployment concerns.

3. Only 5% of Soldiers reported taking in-theatre Rest & Relaxation (R&R), even though the average time deployed was 9 months.

4. Soldiers and Marines reported general resentment about the creation and enforcement of garrison-like rules in a combat environment.

5. Soldier morale was lower than Marine morale but was similar to OIF 04-06 Soldier morale.

6. Overall, Soldiers had higher rates of mental health problems than Marines. When matched for deployment length and deployment history, Soldiers' mental health rates were similar to those of Marines.

7. Multiple deployers reported higher acute stress than first-time deployers. Deployment length was related to higher rates of mental health problems and marital problems.

8. Good NCO leadership was the key to sustaining Soldier and Marine mental health and well-being.

9. Marital concerns were higher than in OIF 04-06, and these concerns were related to deployment length.

10. Although demographic differences exists between the deployed OIF Soldiers and the Army population, 2003-2006 OIF suicide rates are higher than the average Army rate, 16.1 vs. 11.6 Soldier suicides per year per 100,000.

11. The current suicide prevention training is not designed for a combat/deployed environment.

12. Approximately 10% of Soldiers and Marines report mistreating non-combatants (damaged/destroyed Iraqi property when not necessary or hit/kicked a non-combatant when not necessary). Soldiers that have high levels of anger, experienced high levels of combat or screened positive for a mental health problem were nearly twice as likely to mistreat non-combatants as those who had low levels of anger or combat or screened negative for a mental health problem.

13. Transition Team members have lower rates of mental health problems compared to Brigade Combat Team Soldiers, although there was an unmet behavioral health care need.

14. Behavioral health providers require additional Combat and Operational Stress Control (COSC) training prior to deploying to Iraq; very few attended the Army Medical Department Center & School (AMEDD C&S) COSC Course.

15. There is no standardized joint reporting system for monitoring mental health status and suicide surveillance of service members in a combat/deployed environment.

Key Recommendations

The recommendations listed below represent only a partial listing of the recommendations contained in this report. A complete list of recommendations can be found in the Consolidated Recommendations section.

Pre-Deployment

1. To prepare Soldiers and Marines for handling the stressors of combat and deployment, mandate all Soldiers and Marines attend small-group PRE-deployment Battlemind Training. (FORSCOM/HQMC)

2. Develop Battlefield Ethics training based on the Army Chief of Staff's "Soldiers' Rules," using OIF-based scenarios so that Soldiers and Marines know exactly what is expected of them in terms of battlefield ethics and the procedures for reporting violations. (TRADOC/TECOM)

3. Revise the suicide prevention program with elements specific to the OIF area of operations, using scenario-based training that focuses on buddy-aid and leader actions. (Army G-1/BUPERS)

Deployment

4. Re-structure the in-theatre R&R policy to ensure that Soldiers (and Marines) who primarily work outside the basecamps/FOBs receive in-theatre R&R, to include reducing the actual travel time to and from the R&R site. (MNF-I J-3 & J-1)

5. Share Soldier/Marine mental health information with commanders in the same manner and detail as information about a wounded Soldier/Marine is shared. Provide a behavioral health medical profile detailing the extent of the mental health injury, prognosis, and any restrictions/limitations on what the Soldier/Marine can and cannot do. (MEDCOM/OPNAV 093)

6. Develop standardized procedures for conducting Battlemind Psychological Debriefings to replace Critical Event Debriefings and Critical Incident Stress Debriefings following deaths, serious injuries and other significant events. (MNF-I Surgeon & MRMC/OPNAV & NMRC)

7. Focus behavioral health outreach on units that have been in theatre longer than six months. *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

Post Deployment/Sustainment

8. To facilitate Soldiers and Marines reintegrating with their families and transitioning home, mandate all Soldiers and Marines receive small group POST-deployment Battlemind Training. (FORSCOM/HQMC)

9. Educate and train junior NCOs and officers in the important role they play in maintaining Soldier/Marine mental health and well-being by including behavioral health awareness training in ALL junior leader development courses, beginning with the Warrior Leader Course and OBC. (TRADOC/TECOM)

10. Extend the interval between deployments to 18-36 months or decrease deployment length to allow additional time for Soldiers to re-set following a one-year combat tour. (HQ DA/HQMC) Assess the optimal time for Soldiers/Marines to "reset" their mental health and well-being. (HQ DA/HQMC & MEDCOM/MRMC)

BACKGROUND

This report represents the findings from the fourth Mental Health Advisory Team (MHAT IV) conducted since the beginning of Operation Iraqi Freedom (OIF) (see Operation Iraqi Freedom Mental Health Advisory Team Report, 2003; Mental Health Advisory Team II (MHAT-II) Report from Operation Iraqi Freedom II, 2004; Mental Health Advisory Team (MHAT-III) Operation Iraq Freedom 04-06, 2006). The mission and scope of activities of the MHAT IV were approved by the Commanding General (CG), Multinational Forces – Iraq (MNF-I) (see Appendix A). The MHAT IV members were assigned to the MNF-I and worked directly under the supervision and control of the Command Surgeon, MNF-I.

The MHAT IV mission statement: "MHAT IV assesses Soldier and Marine mental health and well-being; examines the delivery of behavioral health care in OIF; analyzes information obtained; provides recommendations for sustainment and improvement to command."

The MHAT IV scope of activities included the following:

1. Assess the mental health and well-being of the deployed force, building on the findings from previous MHATs. Focus on three populations: Soldiers, Marines, and Military Transition Teams. This is the first MHAT to assess the mental health and well-being of Marines and Military Transition Teams.

2. Assess ethical issues faced by Soldiers and Marines to enhance future battlefield ethics training. This activity was included at the specific request of the CG, MNF-I. This is the first time that the topic of Battlefield Ethics has been systematically assessed in a combat environment since World War II (see Stouffer, et al. 1949).

3. Compare findings from current OIF operations to previous MHAT findings.

4. Review behavioral health policies, programs, structure and recourses to ensure optimal integration/utilization, focusing on suicide prevention efforts.

5. Review the status of the implementation of recommendations of previous MHATs, providing assistance where possible.

SOLDIER & MARINE MENTAL HEALTH AND WELL-BEING

The MHAT IV Soldier and Marine Well-being Survey, which was adapted from the Land Combat Study of the Walter Reed Army Institute of Research (Castro & Hoge, 2002) was similar in range and scope to the surveys used in all previous MHATs with two notable exceptions. The MHAT IV Soldier and Marine Well-being Survey included an assessment of Battlefield Ethics and combat leader behaviors, which was the first time these areas were addressed by an MHAT.

Soldier and Marine Combat & Well-Being Model

The areas covered in the MHAT IV survey included: (1) Environmental Risk Factors, such as combat and deployment experiences, and unit and individual characteristics, such as branch of service (e.g., Soldiers or Marines), multiple deployments and deployment length; (2) Protective Factors, such as training and leadership; and (3) Behavioral Health Status and Well-being, including morale, mental health (including acute stress (PTSD), depression, anxiety, and anger) and marital well-being (see Figure 1).

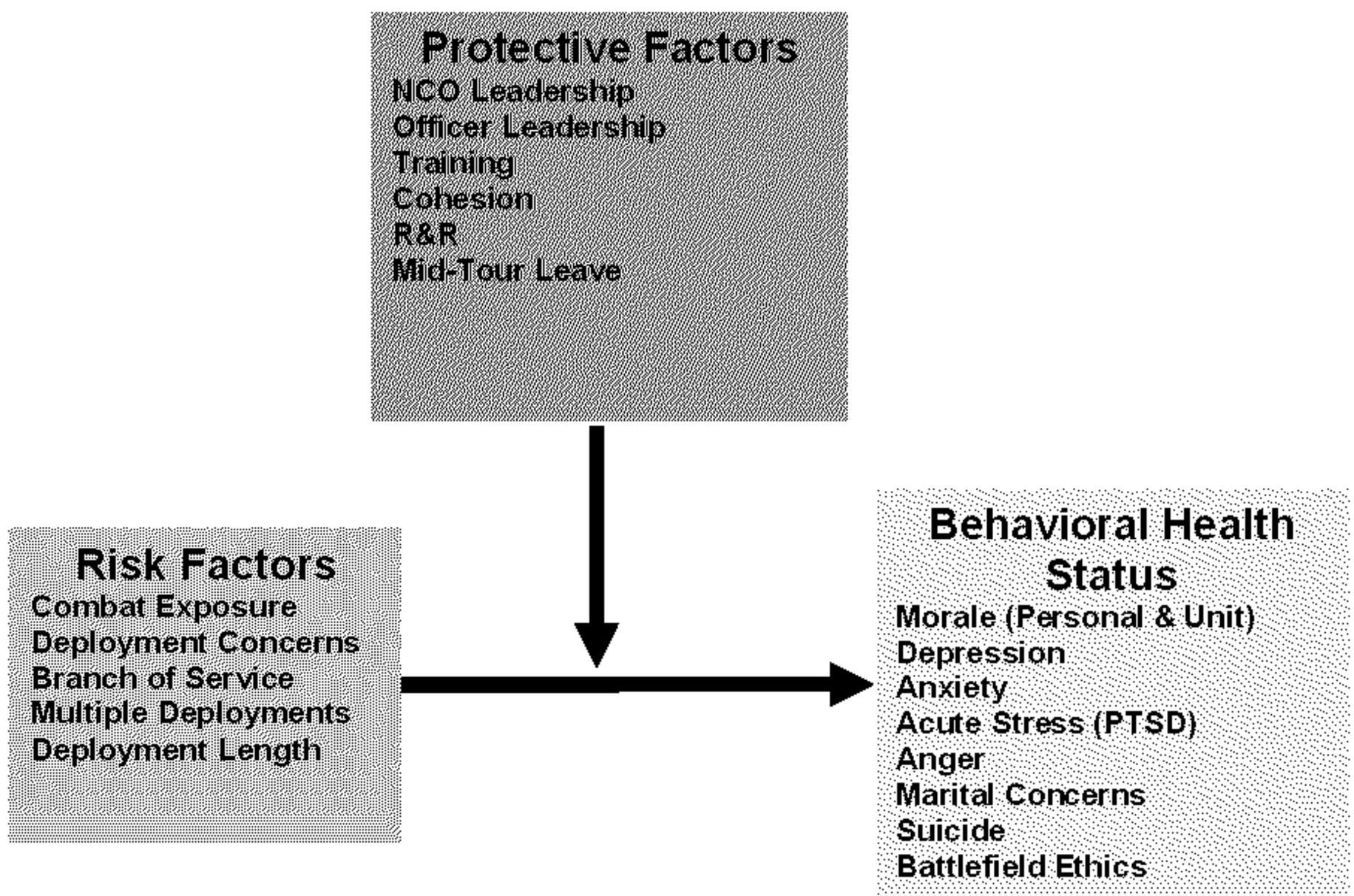


Figure 1. Soldier and Marine Combat & Well-Being Model (Adapted from Bliese & Castro, 2003).

As appropriately noted in the MHAT III report, the basic underlying assumption of this model is that the behavioral health and well-being of Soldiers and Marines is determined by both environmental and individual level characteristics. It's impossible to understand the current mental health status of the deployed force without awareness of the combat environment and the individual characteristics of the Soldiers and Marines operating in that environment. Within this context, important questions addressed in the MHAT IV report include: Does the mental health status of multiple deployers differ from first-time deployers? Is deployment length related to mental health and well-being? Is the mental health status of Soldiers different from that of Marines? Further, the MHAT IV expands on this basic approach by including factors which have been shown to protect or attenuate the Soldier and Marine from these potentially adverse risk factors. Specifically, MHAT IV assessed the role of leadership and training in sustaining the mental health of the deployed force.

Soldier & Marine Sample and Methods

Table 1 shows units that were represented in the MHAT IV assessment. These units either had Soldiers or Marines complete the Soldier/Marine Well-Being, behavior health (BH), primary care (PC) or unit ministry team (UMT) surveys. Each of these surveys can be found in Appendices B, C, D, E, respectively. In addition, selected units also provided Soldiers or Marines to participate in focus group interviews. The interview schedule and summary of the focus groups can be found in Appendices F & G.

The MHAT IV assessment of Soldiers and Marines focused on line companies, primarily Soldiers from brigade combat teams (BCTs) and Marines from Regimental Combat Teams (RCTs). The MHAT IV assessment also included Soldiers and Marines from support units at the corps and division level. To ensure a representative sample, Soldiers and Marines from all Iraqi regions were included where significant U.S. ground forces existed (see Map 1).

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

Table 1. Units Represented in the Soldier and Marine Well-Being Survey by operational region.

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

There were demographic differences between the Soldiers and Marines who completed the Soldier/Marine Well-Being Survey that paralleled the demographics of Soldiers and Marines assigned to brigade/regimental combat teams (see Tables 2 and 3). The Soldiers surveyed were older, more senior ranking, more likely to have completed some college, more likely to be married, and more likely to have children compared to the Marines surveyed. On average, Soldiers were also deployed longer than the Marines at the time they completed the survey, 9 months versus 6 months. There were no significant differences between the Soldier and Marine samples in terms of ethnicity/race, service component (Active or Reserve) or previous deployments to Iraq.

Overall, the current Soldier sample is demographically similar to the Soldier samples of previous MHATs. As noted previously, this is the first time that Marines have been included in a MHAT assessment so no comparison sample exists.

Table 2. Demographics of OIF 05-07 Soldiers that completed the Soldier and Marine Well-Being Survey.

Gender:	Female	14% (n= 188)
	Male	86% (n= 1,118)
Age	18-19	3% (n= 43)
	20-24	49% (n=645)
	25-29	24% (n=312)
	30-39	19% (n=251)
	40+	5% (n= 67)
Ethnicity/ Race:	White	63% (n=816)
	African-Am	13% (n= 172)
	Hispanic	15% (n= 195)
	Asian	5%(n= 59)
	Other	4%(n= 55)
Rank:	Jr. Enlisted	57% (n=712)
	NCO	37% (n=460)
	Sr. NCO	<1% (n=8)
	Officer/WO	5% (n=60)
Education:	H.S./ GED	37% (n=589)
	Some College	39% (n=532)
	Assoc. Degree	7% (n=92)
	Bachelor's	8% (n=105)
	Master's/Ph.D.	1% (n=14)

Service Component:	AC 79% RC 8% NG 13%
Median years in military:	3 years
Percent married:	51% (n =665)
Median years married	3 years
Soldiers with children:	45% (n = 585)
Deployments to Iraq:	
1st Time	71% (n = 890)
Multiple	29% (n = 354)
Average Months deployed (median):	9

Table 3. Demographics of OIF 05-07 Marines that completed the Soldier and Marine Well-Being Survey.

Gender:	Female	7% (n= 30)
	Male	93% (n=408)
Age	18-19	16% (n= 71)
	20-24	65% (n=289)
	25-29	13% (n=59)
	30-39	6% (n=25)
	40+	<1% (n= 3)
Ethnicity/ Race:	White	69% (n= 302)
	African-Am	6% (n= 25)
	Hispanic	17% (n= 75)
	Asian	4%(n= 18)
	Other	4%(n= 16)
Rank:	Jr. Enlisted	85% (n=367)
	NCO	12% (n=52)
	Sr. NCO	<1% (n=3)
	Officer/WO	2% (n=9)
Education:	H.S./ GED	61% (n=282)
	Some College	26% (n=112)
	Assoc. Degree	5% (n=21)
	Bachelor's	4% (n=16)
	Master's/Ph.D.	<1% (n=2)

Service Component:	AC 90% RC 10%
Median years in military:	2 years
Percent married :	33% (n =136)
Median years married	2 years
Marines with children:	17% (n = 69)
Deployments to Iraq:	
1st Time	67% (n = 278)
Multiple	33% (n = 135)
Average Months deployed (median):	6

Comparison Samples (OIF I, OIF II and OIF 04-06)

Whenever appropriate, findings from MHAT IV were compared to the findings from previous MHATs in order to identify emerging trends or patterns relating to the behavioral health and well-being of Soldiers. It should be noted that MHAT I and MHAT II included Soldiers deployed to both Iraq and Kuwait in their analyses. In contrast, MHAT III and MHAT IV did not include Soldiers deployed to Kuwait; thus, for the OIF I and OIF II samples, only Soldiers deployed to Iraq are included in the comparative analyses.

OIF I. In total, 577 Soldiers deployed to Iraq completed the Soldier Well-Being Survey during MHAT I. Despite the relatively small sample size, the demographic profile of the OIF I sample is similar to the sample in MHAT IV (N = 1,320) and to the other MHAT samples. The only significant differences in the demographic make-up of the OIF I sample and the present sample is that the there were fewer reserve component Soldiers, 12% versus 21%. The demographic characteristics of the 577 OIF I Soldiers are provided in Table 4.

Table 4. Demographics of the OIF I Soldier Sample (MHAT I).

Gender:	Female	13% (n=73)
	Male	87% (n=502)
Age:	18-24	57% (n=324)
	25-29	24% (n=137)
	30-39	14% (n=83)
	40+	5% (n=29)
Ethnicity/ Race:	White	65% (n=373)
	African-Am	16% (n=92)
	Hispanic	10% (n=59)
	Asian	4% (n=20)
	Other	5% (n=28)

Rank:	Jr. Enlisted	63% (n=362)
	NCO	28% (n=158)
	Sr. NCO	2% (n=14)
	Officer/WO	7% (n=41)
Median years in military:		3 years
Reserve:		9% (n=50)
National Guard:		3% (n=15)

OIF II. During MHAT II, 1,595 Soldiers in Iraq completed the Soldier Well-Being Survey. Overall, the OIF II sample is similar to the MHAT IV sample, despite several minor exceptions. The OIF II sample differed from the MHAT IV sample in that there was a higher percentage of reserve component Soldiers in the OIF II sample (46% versus 21%) and the Soldiers in the OIF II sample had spent more years in the military compared to the MHAT IV sample, 5 years versus 3 years. The demographics of the OIF II Soldiers are listed Table 5.

Table 5. Demographics of the OIF II Soldier Sample (MHAT II).

Gender:	Female	13% (n=203)
	Male	87% (n=1383)
Age:	18-24	45% (n=722)
	25-29	21% (n=333)
	30-39	24% (n=387)
	40+	9% (n=150)
Ethnicity/ Race	White	68% (n=1072)
	African-Am	14% (n=228)
	Hispanic	10% (n=160)
	Asian	4% (n=55)
	Other	4% (n=58)

Rank:	Jr. Enlisted	55% (n=879)
	NCO	33% (n=524)
	Sr. NCO	4% (n=67)
	Officer/WO	8% (n=122)
Median years in military:		5 years
Reserve:		11% (n=168)
National Guard:		35% (n=556)

OIF 04-06. During MHAT III, a total of 1,124 Soldiers in Iraq completed the Soldier Well-Being Survey. This sample is also similar to the current sample, with two exceptions. The OIF 04-06 sample contained Soldiers who had been in the military slightly longer than Soldiers in the current sample, 4 years versus 3 years. In addition, the OIF 04-06 sample had a higher percentage of reserve component Soldiers than the current sample, 31% versus 21%. The demographics of the OIF 04-06 Soldiers are listed in Table 6.

Table 6. Demographics of the OIF 04-06 Soldier Sample (MHAT III).

Gender:	Female	14% (n= 158)
	Male	86% (n= 964)
Age:	18-24	44% (n=491)
	25-29	26% (n=296)
	30-39	23% (n=254)
	40+	7% (n=81)
Ethnicity/ Race:	White	60% (n= 656)
	African-Am	18% (n= 200)
	Hispanic	10% (n= 115)
	Asian	7% (n= 80)
	Other	5% (n= 51)
Rank:	Jr. Enlisted	60% (n=670)
	NCO	31% (n=353)
	Sr. NCO	3% (n=35)
	Officer/WO	6% (n=65)
Education:	H.S./ GED	45% (n=502)
	Some College	36% (n=398)
	Assoc. Degree	7% (n=80)
	Bachelor's	9% (n=96)
	Master's/Ph.D.	2% (n=24)

Median years in military:	4 years
Median months in unit:	18 months
Median months deployed in last 4 years:	11 months
Percent married:	54% (n =582)
Median years married:	4 years
Soldiers with children:	50% (n = 539)
Percent Reserve:	2% (n = 21)
Percent National Guard:	29% (n = 330)

Combat Experiences

The frequency of experiencing one of thirty different combat experiences was assessed using the Soldier and Marine Well-Being Survey. Figures 2a and 2b shows findings from eight of these combat experiences for OIF 05-07 Soldiers and Marines compared to OIF 04-06 Soldiers and OIF I Soldiers. As can be seen, combat experiences remained high for both Soldiers and Marines in OIF 05-07. In comparison to OIF I Soldiers, fewer OIF 04-06 Soldiers and OIF 05-07 Soldiers and Marines reported receiving small arms fire (X^2 (1819) = 58.28, $p < .01$) and (X^2 (964) = 60.41, $p < .01$) respectively.

However, the combat experiences for OIF 05-07 Soldiers and Marines were similar to those of OIF 04-06 Soldiers. For example, Soldiers in OIF 05-07 were just as likely to experience receiving incoming artillery, rocket and mortar fire, receiving small arms fire, being in threatening situations where they couldn't respond due to the ROE, and having an improvised explosive device (IED) or booby trap explode near them as OIF 04-06 Soldiers.

More than one-third of all Soldiers and Marines continue to report being in threatening situations where they were unable to respond due to the Rules of Engagement (ROE). In interviews, Soldiers reported that Iraqis would throw gasoline-filled bottles (i.e., Molotov cocktails) at their vehicles, yet they were prohibited from responding with force for nearly a month until the ROE were changed. Soldiers also reported they are still not allowed to respond with force when Iraqis drop large chunks of concrete blocks from

second story buildings or overpasses on them when they drive by. Every group of Soldiers and Marines interviewed reported that they felt the existing ROE tied their hands, preventing them from doing what needed to be done to win the war.

An important combat experience that was not asked on the survey, but emerged during every Soldier and Marine focus group interview was being shot at by snipers. The escalation (and perceived effectiveness) of sniper attacks is an important combat stressor that needs to be included in future assessments.

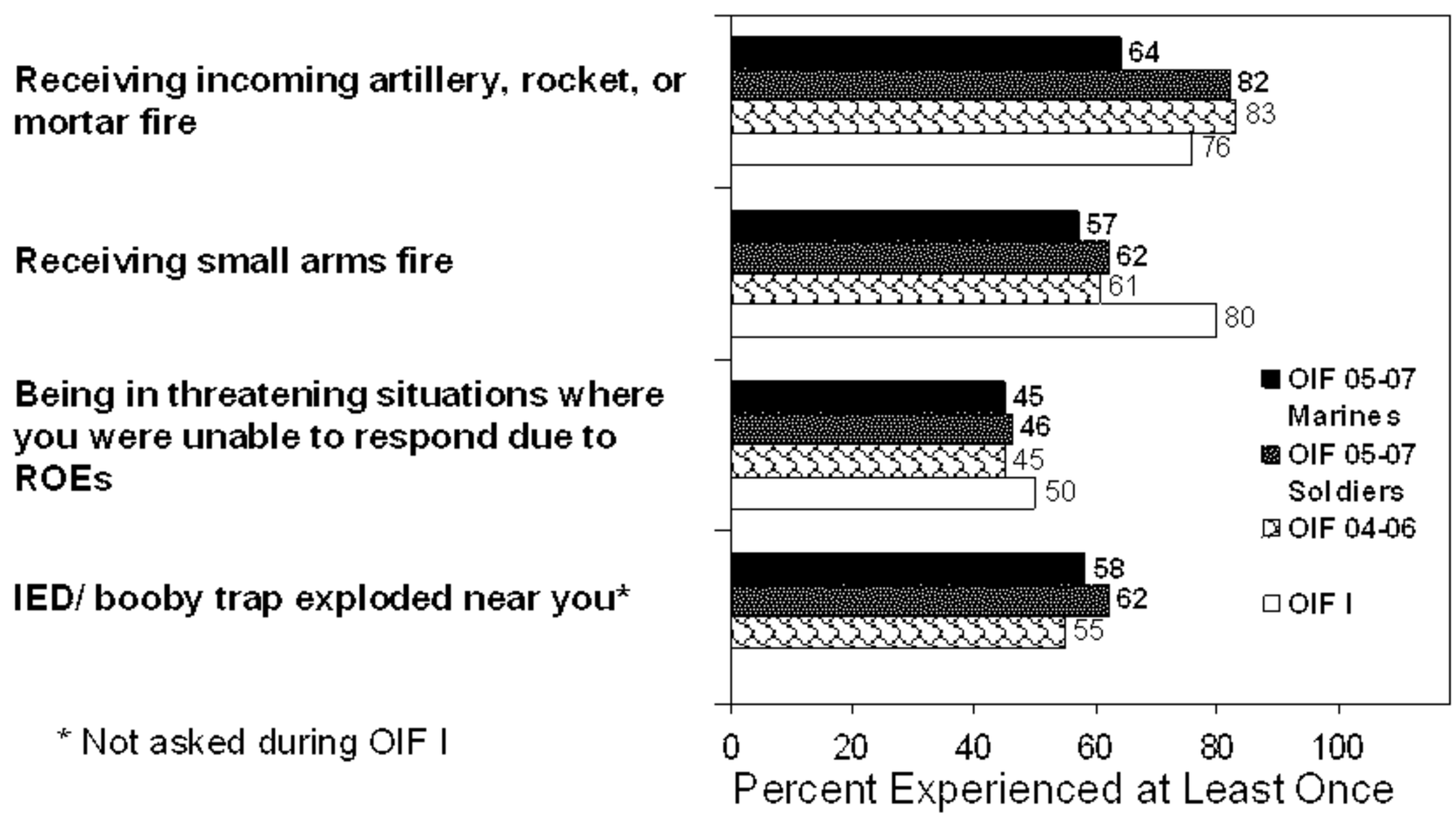


Figure 2a. Combat experiences of Soldiers and Marines during OIF 05-07 compared to Soldiers during OIF I and 04-06.

The war in Iraq remains very personal (see Figure 2b). Over three-quarters of Soldiers and Marines surveyed reported being in situations where they could be seriously injured or killed. Both Soldiers and Marines report at relatively high rates that they knew someone seriously injured or killed or had a member of their team become a casualty, 62% and 66%, respectively. Indeed, on the survey, over 650 Soldiers/Marines described an event which occurred during the current deployment that caused them "intense fear, helplessness or horror." Typical comments included:

- "My sergeant's leg getting blown off."
- "Friends burned to death, one killed in blast."
- "Mortars coming into your position and not being able to move."
- "A Bradley blew up. We got two guys out, three were still inside. I was the medic."
- "A friend was liquified [sic] in the driver's position on a tank, and I saw everything."
- "A huge fucking bomb blew my friends head off like 50m from me."

- "Marines being buried alive."
- "After my Bradley hit an IED, the drivers [sic] hatch wouldn't open and smoke started filling the interior."
- "Ambush on patrol & Marines caught in the open."
- "Doing raids on houses with bad intel."
- "Convoy stopped in dangerous areas due to incompetent commanders."
- "Working to clean out body parts from a blown up tank."
- "Fear that I might not see my wife again like my fallen comrades."
- "Finding out two of my buddies died and knowing I could do nothing about it."
- "Getting blown up or shot in the head."
- "Just seeing dead people on a lot of missions."
- "I had to police up my friends off the ground because they got blown up."
- "Mortar attacks, lost a close Marine."
- "My best friend lost his legs in an IED incident."
- "Seeing, smelling, touching dead, blowen [sic] up people."
- "Sniper fire without obvious sorce [sic]."

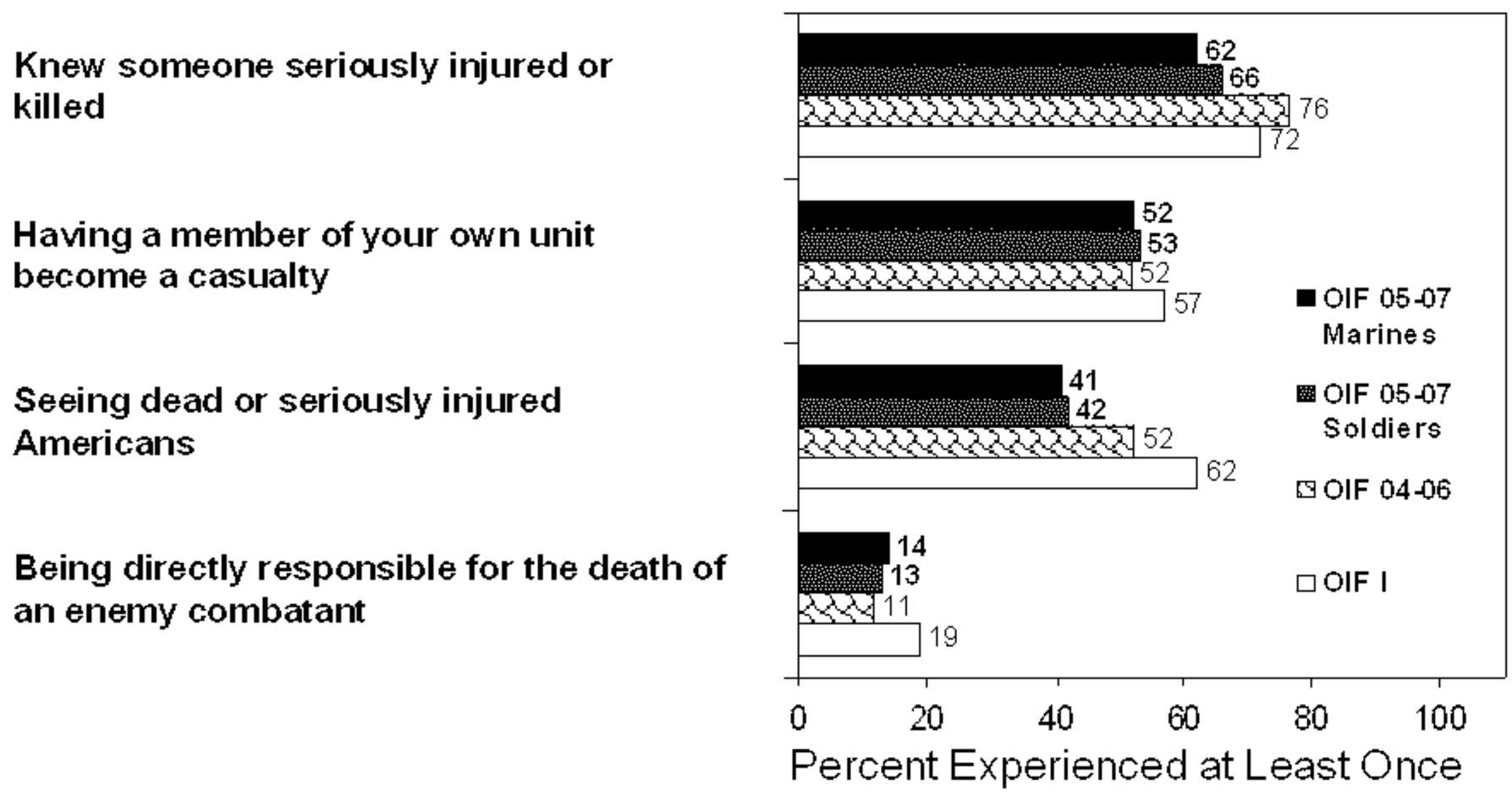


Figure 2b. Combat experiences of Soldiers and Marines during OIF 05-07 compared to Soldiers during OIF I and 04-06.

Deployment Concerns

Long deployment length continues to be the top concern for OIF 05-07 Soldiers, as well as uncertain re-deployment date and being separated from their family (see Figure 3). Forty percent (40%) of OIF 05-07 Soldiers reported being concerned about the uncertain re-deployment date compared to 35% of OIF 04-06 Soldiers. This 5%

increase in the concern over the re-deployment date is no doubt due to the inclusion of Soldiers from a BCT that was extended beyond its initial 12 month deployment date. The stress of this extension was compounded by the fact that many of these Soldiers learned of the extension from their Spouses, who learned about the extension from the garrison leadership. Also, strategies (e.g. countdown calendars) that these Soldiers used to keep their children informed of when their parent would be home, backfired when the unit got extended. Another BCT was also extended beyond its re-deployment date, but no Soldiers from that brigade were included in the current sample. Because of shorter deployments, Marines tended to have fewer deployment concerns than Soldiers (t (1151) = 6.68, $p < .01$).

Lack of privacy and personal space also remains a concern for OIF 05-07 Soldiers, with 39% of Soldiers indicating this issue as a major issue. The amount of privacy a Soldier/Marine has depends upon their living conditions. There is, indeed, wide variability in the lodging accommodations of Soldiers in Iraq, ranging from Soldiers living in air-conditioned trailers to tents. At some basecamps, Soldiers are housed two per trailer; while at other basecamps, Soldiers are housed twenty per tent. Obviously, as long as Soldiers are being housed twenty per tent, lack of privacy and personal space will remain a top deployment concern.

It is interesting to note that over a third of Soldiers (39%) and Marines (33%) reported boring or repetitive work as a main deployment concern, a point discussed further below when reviewing the relationship of level of combat to mental health status.

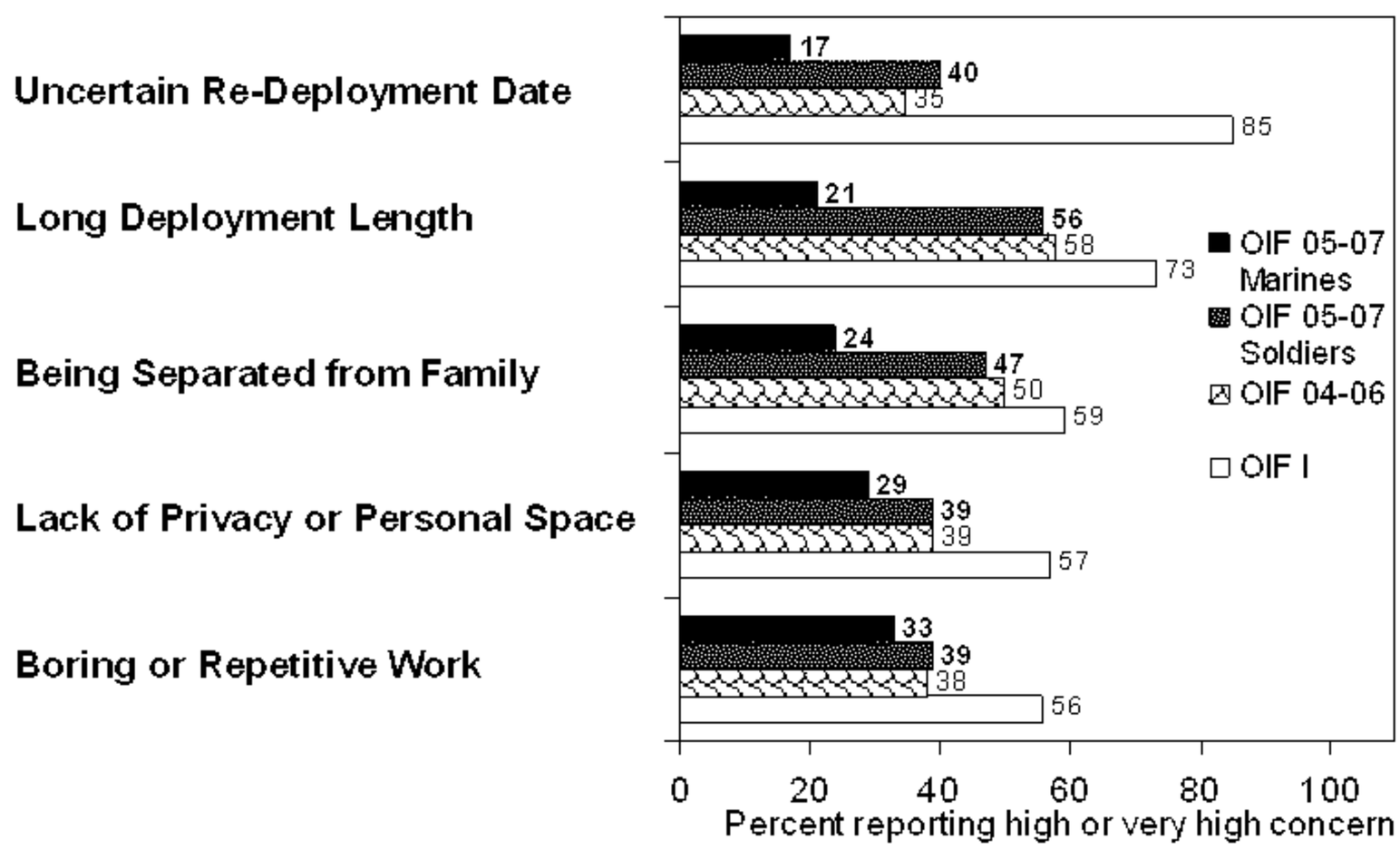


Figure 3. Deployment concerns of Soldiers and Marines during OIF 05-07 compared to Soldiers during OIF I and 04-06.

Individual and Unit Morale

Personal morale and unit morale for Soldiers and Marines for all the OIF deployments is shown in Figure 4. As can be seen, morale was lowest during OIF I. Soldier morale in OIF 05-07 was similar to that of OIF 04-06, with 45% of NCOs and junior enlisted OIF 05-07 Soldiers reporting low or very low unit morale compared to 43% for OIF 04-06 Soldiers. While Marine morale is higher than Soldier morale ($t(1722) = 5.82$, $p < .01$), it was also low, with only 27% of Marines reporting high or very high morale.

Not surprisingly, deployment tempo was related to Soldier morale. Junior enlisted Soldiers who were multiple deployers reported lower individual morale (56% low or very low) compared to junior enlisted Soldiers who were on their first deployment (46% low or very low) ($X^2(911) = 6.91$, $p < .01$) . Overall, Soldier morale in OIF 05-07 was moving towards levels recorded during OIF I when Soldier and unit morale were at their lowest.

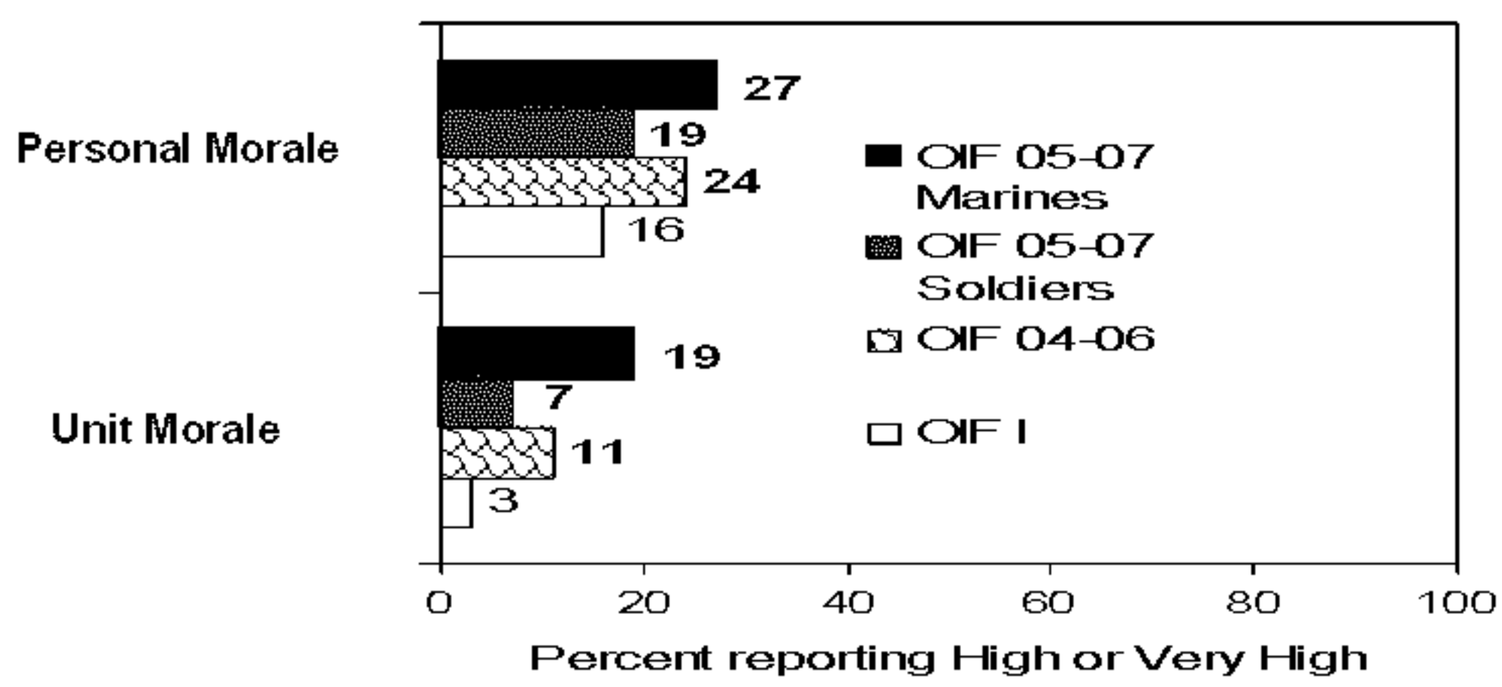


Figure 4. Individual and unit morale of Soldiers and Marines during OIF 05-07 compared to Soldiers during OIF I and OIF 04-06.

During the focus group interviews when asked specifically about issues that affected morale, Soldiers and Marines consistently identified two issues. First, there was general resentment towards the senior leadership in the enforcement/establishment of basecamp (or forward operating base, (FOB)) rules. The perception was that these "FOB rules" had no obvious practical purposes other than to harass the Soldier/Marine, and that these FOB rules simply represented an attempt by senior leaders to implement garrison rules in a combat environment.

An example of one of the most visible "FOB rules" involved the wearing of the Army Physical Fitness Training Uniform (i.e., PT uniform). While some Soldiers were allowed to wear the tan, Army Combat Uniform (ACU) t-shirt with the black Army PT shorts, other Soldiers were not; while some Soldiers were allowed to wear their Army PT uniform into the dining facility, others were not; while some Soldiers were allowed to

wear their Army PT uniform when not on duty, others were not. One unit that did allow Soldiers to wear either the tan ACU t-shirt or the Army gray t-shirt with their PT shorts mandated that when two or more Soldiers were walking together that they had to be in the same uniform. What rules Soldiers had to follow in the wearing of the Army PT uniform depended on both the unit and the basecamp, often with different rules existing within the same unit and on the same basecamp. Neither Soldiers nor Marines saw the link between the wearing of the PT uniform and combat readiness.

The second issue that emerged during the Soldier and Marine focus groups involved, for lack of a better description, fairness in accessing morale, welfare and recreational (MWR) assets. To understand this issue, one must appreciate the important distinction that exists between Soldiers and Marines who execute missions "outside the wire" and those who rarely if ever leave the basecamps or FOBs. It is the Soldiers and Marines who execute the "outside the wire" missions who are at the greater risk of being seriously injured or killed. Yet, it is these Soldiers and Marines who have to wait in long lines at the MWR sites to use the phone or email, who can rarely take the afternoon off to attend MWR events or concerts, and who have difficulty taking advantage of the in-theatre R&R program. In contrast, Soldiers and Marines who work primarily on the FOB or at headquarters units generally have unfettered access at work to both the internet to email home and a phone to call home, can much more easily take the afternoon off to attend MWR events or concerts, and can with little trouble take in-theatre R&R. Not to mention that these Soldiers generally get first dibs on new items which come into the post-exchange (PX). Understandably, those Soldiers and Marines who work outside the wire every day believe that this situation is unfair.

Many Soldiers reported that traveling to and from the 4-day R&R site in Qatar often took as long as or longer than the 4 days they actually got for R&R. This was mainly due to transportation difficulties revolving around getting flights in and out of theatre. The result was that Soldiers were often frustrated instead of being rested when they returned from R&R. More importantly, in line units that went "outside the wire," leaders would often not allow Soldiers to go on R&R due to loss of combat power. One possible solution that would allow line Soldiers to get R&R and also reduce the loss of combat power is to develop a backfill plan using Soldiers who do not go outside the wire regularly. Often, NCOs in Headquarters units who had gone outside the wire on previous deployments to OIF work in the TOC and therefore do not go outside the wire. These Soldiers could backfill for Soldiers who are going outside the wire on a regular basis when those Soldiers go on R&R. As a result, the units would not lose combat power and would still have experienced Soldiers conducting missions outside the wire.

In actuality, it is probably not any single one of the above factors that negatively impact the morale of the Soldier or Marine. Rather, it is the accumulation of all of them that tends to wear down the Soldiers' and Marines' morale. Every Soldier and Marine wants his/her sacrifices to be recognized and appreciated. Fairness would demand that those Soldiers and Marines who assume the greatest risks should be the first to be recognized and the first to be appreciated. A good place to start is with the elimination of rules not linked to combat readiness and by ensuring those Soldiers and Marines that

assume the greatest risks receive first rights to all MWR programs. For instance, only 5.2% of Soldiers and 6.5% of Marines reported taking in-theatre R&R leave, which begs the question, what is the purpose of an R&R program if BCT Soldiers and RCT Marines can't take advantage of it?

Behavioral Health Status

Behavioral health status was assessed using the Soldier and Marine Well-Being Survey. Figure 5 shows that more OIF 05-07 Soldiers (13%) reported experiencing a severe stress, emotional, alcohol or family problem compared to Soldiers during OIF I (7%) and OIF 04-06 (10%), or Marines (6%) (X^2 (1837) = 13.62, $p < .01$)). However, the percent of OIF 05-07 Soldiers interested in receiving help for a stress, emotional, alcohol or family problem was not higher than for OIF I or OIF 04-07 Soldiers, although it was higher than Marines (X^2 (1726) = 9.70, $p < .01$) .

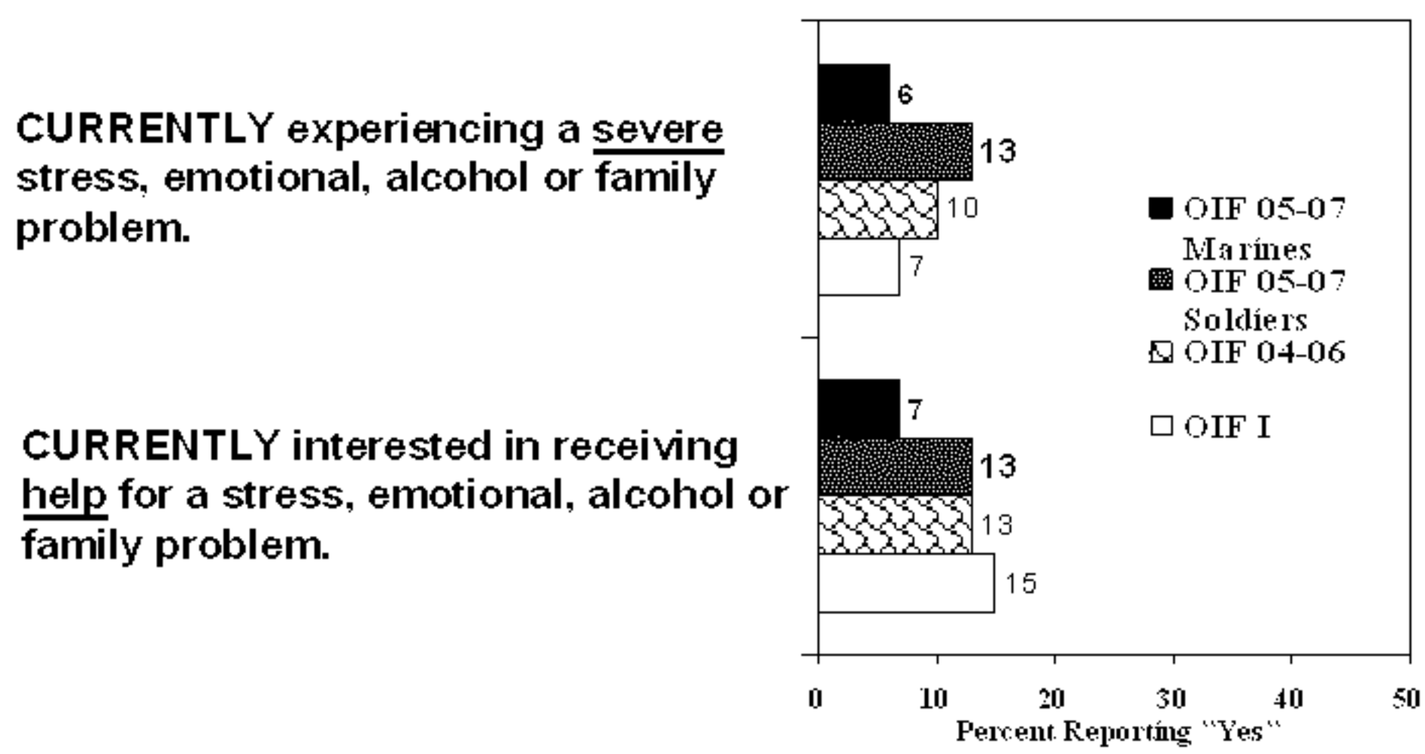


Figure 5. Percent of Soldiers and Marines during OIF 05-07 that reported currently experiencing a severe stress, emotional, alcohol or family problem and percent interested in receiving help compared to Soldiers during OIF I and OIF 04-06.

Soldiers were asked about their current mental health functioning in the areas of depression, generalized anxiety and acute stress (i.e., PTSD) (see Figure 6). Post-traumatic stress disorder (PTSD) symptoms reported by Soldiers in a combat zone are referred to as acute stress or combat stress. In this report, we will follow this practice. In order to score positive for one of these three areas, established clinical guidelines were met at the levels of "more than half the days in the past four weeks" for depression and anxiety or at a "moderate" level for acute stress/combat stress. On the traumatic stress symptom (PTSD) scale, Soldiers screened positive only if they met two conditions. They had to score positive on the three Post Traumatic Stress Disorder (PTSD) symptoms of avoidance, hyperarousal, and intrusive thoughts as described in the Diagnostic and Statistical Manual of Mental Disorders IV-TR (DSM IV-TR). They also had to receive a total score of at least 50 on a scale of 17 to 85 on the PTSD

Checklist-PCL (Blanchard, et al.,1996). On the depression and anxiety scales, Soldiers screened positive only if they met both the DSM IV-TR criteria for the disorders and endorsed functional impairment at the "very difficult" or "extremely difficult" level. The functional impairment item asked whether symptoms had made it difficult to do work or get along with others. The use of the functional impairment item for depression and anxiety and the total score of 50 for traumatic stress established conservative estimates of those at high risk for possible mental disorders consistent with previous studies (Hoge, et al., 2004; Spitzer, et al., 1999; Blanchard, et al., 1996).

As shown in Figure 6, a similar percentage of OIF 05-07 Soldiers screened positive for anxiety, depression and acute stress (PTSD) problems compared to OIF I and OIF 04-06 Soldiers. Note that in the MHAT III report, these data are depicted as "Percent Showing Symptoms." We have not used this description as Soldiers/Marines may show symptoms and yet not screen positive. Instead, we will use the label of "Percent Screening Positive." The percentage of Marines, however, that screened positive for anxiety (X^2 (973) = 4.49, $p < .05$) and depression (X^2 (973) = 5.79, $p < .05$) were lower than those of the Soldiers for OIF I, 04-06, and 05-07. The percentage of Marines that screened positive for Acute Stress (PTSD), however, was not significantly different than those of any of the OIF Soldiers.

During the deployment, a small percentage of Soldiers (6.5%) and Marines (6.6%) did report using alcohol, although it is prohibited by General Order 1b. An even smaller percentage of Soldiers and Marines reported using illegal drugs, 1.4% for both groups. Not surprisingly, alcohol use was associated with mental health status, with 10.2% of Soldiers who screened positive for a mental health problem reporting using alcohol during the deployment compared to 5.6% of Soldiers who screened negative for a mental health problem, (X^2(1309) = 7.15, $p < .01$). The occurrence of illegal drug use was too low to establish a relationship between drug use and mental health status.

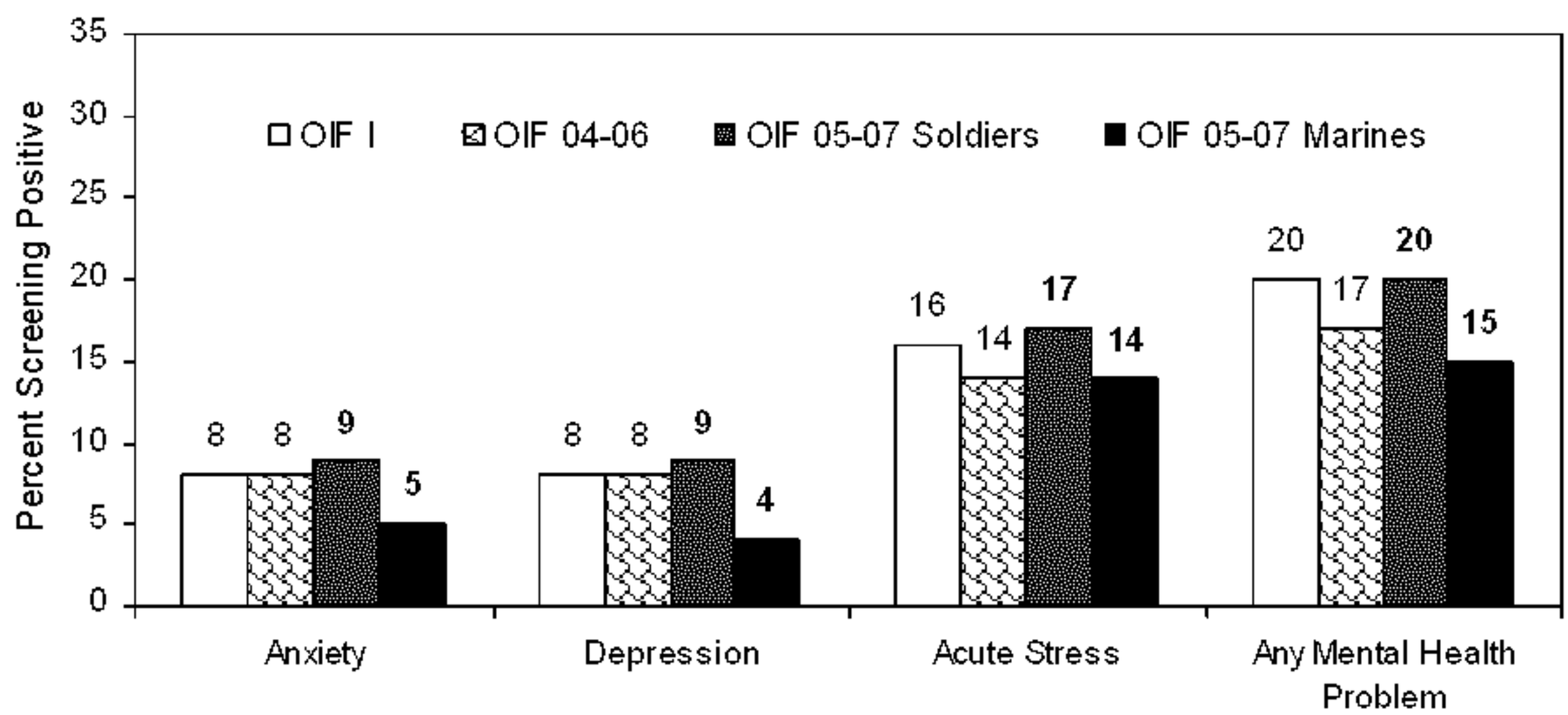


Figure 6. Percent of Soldiers and Marines from OIF I, OIF 04-06, and OIF 05-07 that screened positive for Anxiety, Depression and Acute Stress (i.e., PTSD). Any Mental Health Problem refers to those Soldiers and Marines that screened positive for either Anxiety, Depression or Acute Stress.

Level of combat was related to screening positive for anxiety, depression or acute stress (PTSD). Figures 7a and 7b show the behavioral health status of Soldiers and Marines as a function of combat level. The levels of combat represent tertiles based on the combat experiences scale using the Soldier and Marine Well-Being Survey, with Low Combat representing the bottom tertile, Medium Combat representing the middle tertile, and High Combat representing the top tertile.

As can easily be seen, for Soldiers (see Figure 7a), there is a linear relationship between combat level and screening positive for anxiety, depression, acute stress (PTSD), and any mental health problem (all X^2's > 13.90, $p < .01$). For both anxiety and depression, Soldiers are 2.4 and 2.6 times more likely to screen positive if they experience high combat versus low combat. For acute stress (PTSD), Soldiers are 3.5 times more likely to screen positive if they experience high combat than if they experience low combat.

For Marines, the relationship was not as linear between combat level and screening positive for anxiety and depression, as there were no significant differences between screening positive for anxiety or depression for those Marines experiencing low or medium combat levels. There was, however, a linear relationship between screening positive for acute stress (PTSD) and for any mental health problem, and combat level. Marines who experienced high combat were 4.6 times more likely to screen positive for acute stress (PTSD) and 4.3 times more likely to screen positive for any mental health problem compared to Marines experiencing low combat (all X^2's = 10.74, $p < .01$), and the rates of acute stress (PTSD) and any mental health problem were identical for Soldiers and Marines who had high combat experiences.

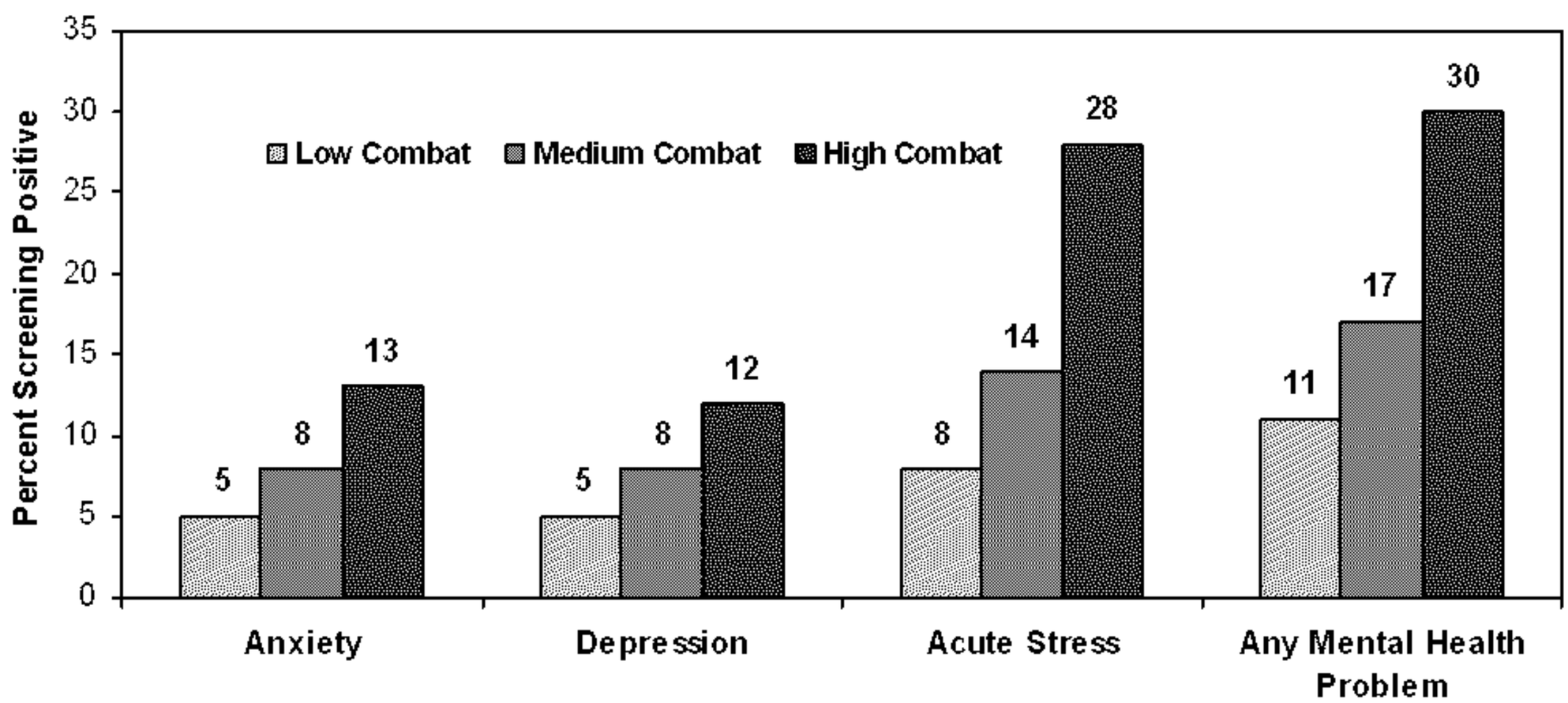


Figure 7a. Percent of OIF 05-07 Soldiers that screened positive for Anxiety, Depression and Acute Stress (i.e., PTSD) as a function of Combat Level (tertiles), Low (n = 430), Medium (n = 452) and High (n = 435).

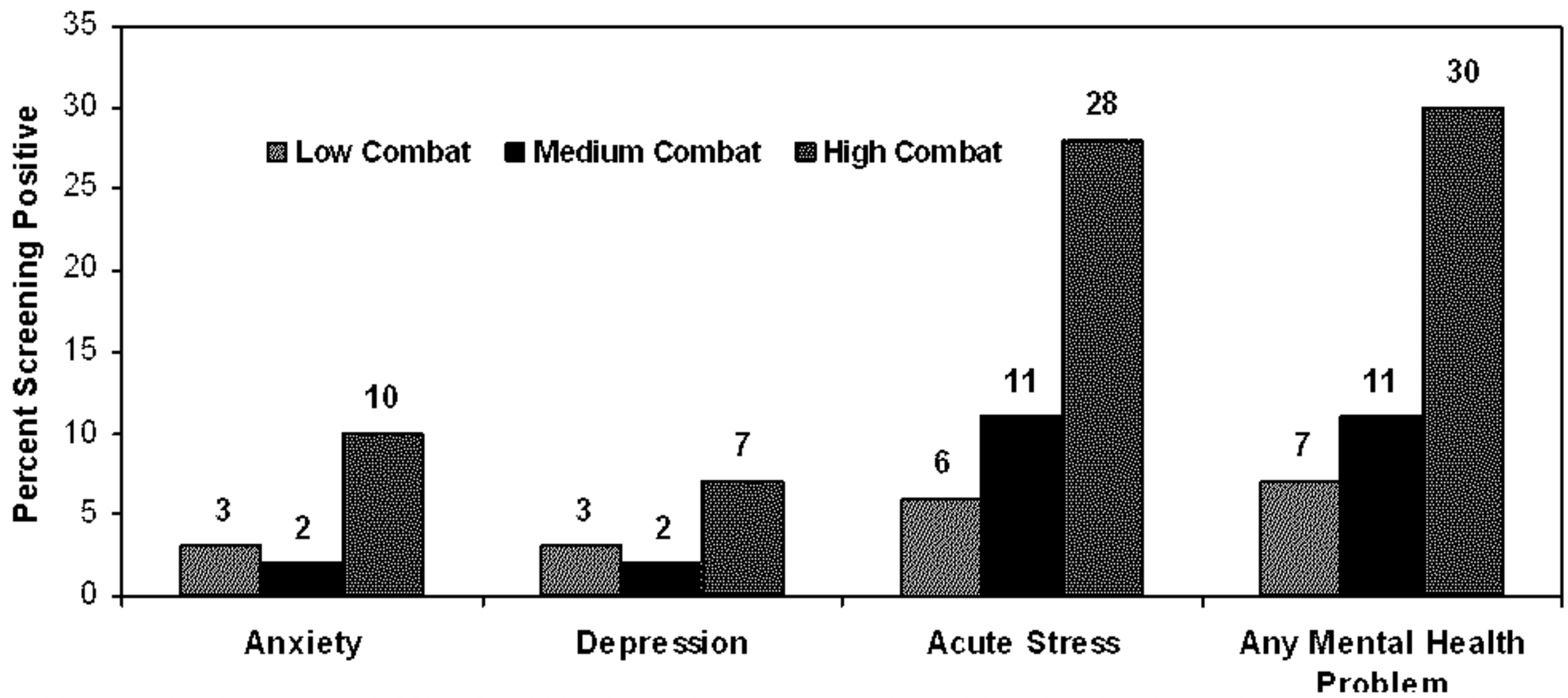


Figure 7b. Percent of OIF 05-07 Marines that screened positive for Anxiety, Depression and Acute Stress (i.e., PTSD) as a function of Combat Level (tertiles), Low (n = 184), Medium (n = 136) and High (n = 124).

It is important to keep in mind that the level of combat a Soldier reported was also related to the amount of time a Soldier spent outside the basecamp or forward operating base (FOB). Soldiers in the Low Combat condition reported spending only 12.3 hours per week outside the basecamp or FOB, while Soldiers in the Medium Combat and High Combat conditions reported spending 34.6 and 56.4 hours per week, respectively, outside the basecamp or FOB. In the total sample, 17% of respondents (Soldier/Marine) reported never leaving the basecamp or FOB.

Demographically, the Low, Medium and High Combat groups also differed. Soldiers in the Medium and High Combat conditions tended to be younger than Soldiers in the Low Combat conditions, with 54% of Soldiers in the High Combat condition being 20-24 years of age compared to 42% of Soldiers in the Low Combat condition. Soldiers in the High Combat condition also tended to be Caucasian/white, with 72% of Soldiers in the High Combat condition being Caucasian/white compared to 63% of Soldiers in the Medium Combat condition and 54% of Soldiers in the Low Combat condition being Caucasian/white. This difference in combat conditions was due to there being a higher number of African-Americans in the Low Combat condition compared to the High and Medium Combat conditions; while the Low Combat condition consisted of 21% African-Americans, the Medium Combat condition consisted of 14% African-Americans, with the High Combat condition consisting of only 5% African-Americans. Finally, there were fewer female Soldiers in the higher combat conditions, with 29% of females being in the Low Combat condition, 12% in the Medium Combat condition, and 3% in the High Combat condition. There was no difference between the three combat conditions in terms of marital status or prior deployments.

It is important to appreciate that the rates for screening positive for anxiety, depression and acute stress (PTSD) for Soldiers experiencing low combat are similar to those rates for Soldiers screening positive who have never deployed to combat before. That is, Soldiers with low combat experiences have the same mental health status as Soldiers in garrison who have never deployed before.

Behavioral Health Status and Multiple Deployments & Deployment Length

Figures 8 and 9 shows the percentage of OIF 05-07 Soldiers that screened positive for acute stress (PTSD), depression, anxiety or any mental health problem as a function of Multiple Deployments and Deployment Length. These analyses were not conducted for Marines due to an insufficient sample size. Soldiers deployed to Iraq more than once were more likely to screen positive for acute stress (PTSD), depression, anxiety or any mental health problem than were first time-time deployers (X^2's (1242) = 12.12, $p < .01$). For acute stress (PTSD), multiple deployers were 1.6 times more likely to screen positive than were first-time deployers. For anxiety and depression, multiple deployers were 1.2 and 1.7 times, respectively, more likely to screen positive compared to first-time deployers. This pattern of findings differs from those of MHAT III in which no differences were observed between First-Time Deployers and Multiple Deployers for anxiety and depression. Further, the rates for Acute Stress were lower for OIF 04-06 Soldiers for both Multiple Deployers and First-Time Deployers compared to OIF 05-07 Soldiers, 12% versus 15% and 18% versus 24%, respectively.

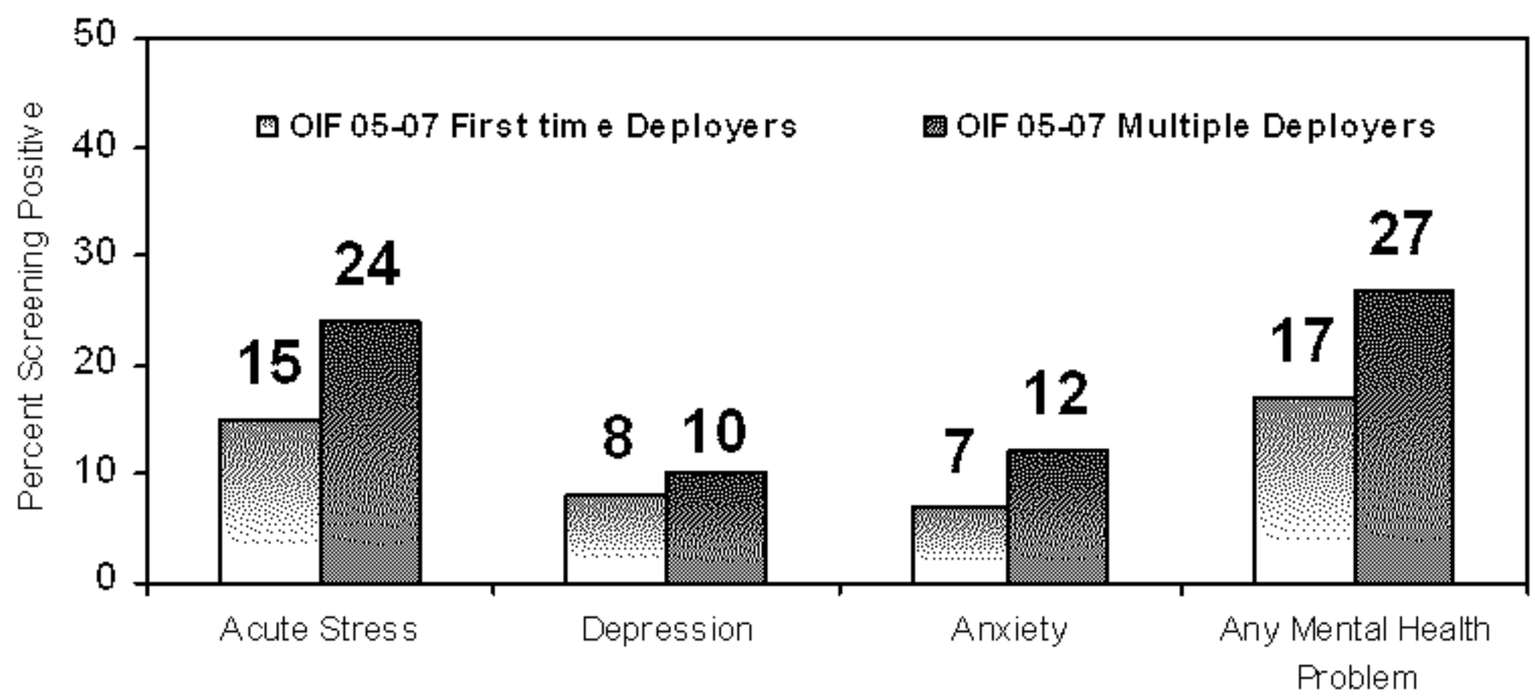


Figure 8. Percent of OIF 05-07 Soldiers that were First-time Deployers or Multiple Deployers who screened positive for acute stress (PTSD), depression, anxiety or any mental health problem.

Soldiers deployed more than 6 months were1.5-1.6 times more likely to screen positive for acute stress, depression and/or anxiety compared to Soldiers deployed for less than six months (X^2 (1267) = 10.31, $p < .01$) (see Figure 9). This is the first MHAT to look at deployment length so no comparisons to the findings of previous MHATs are possible for this predictor of mental health.

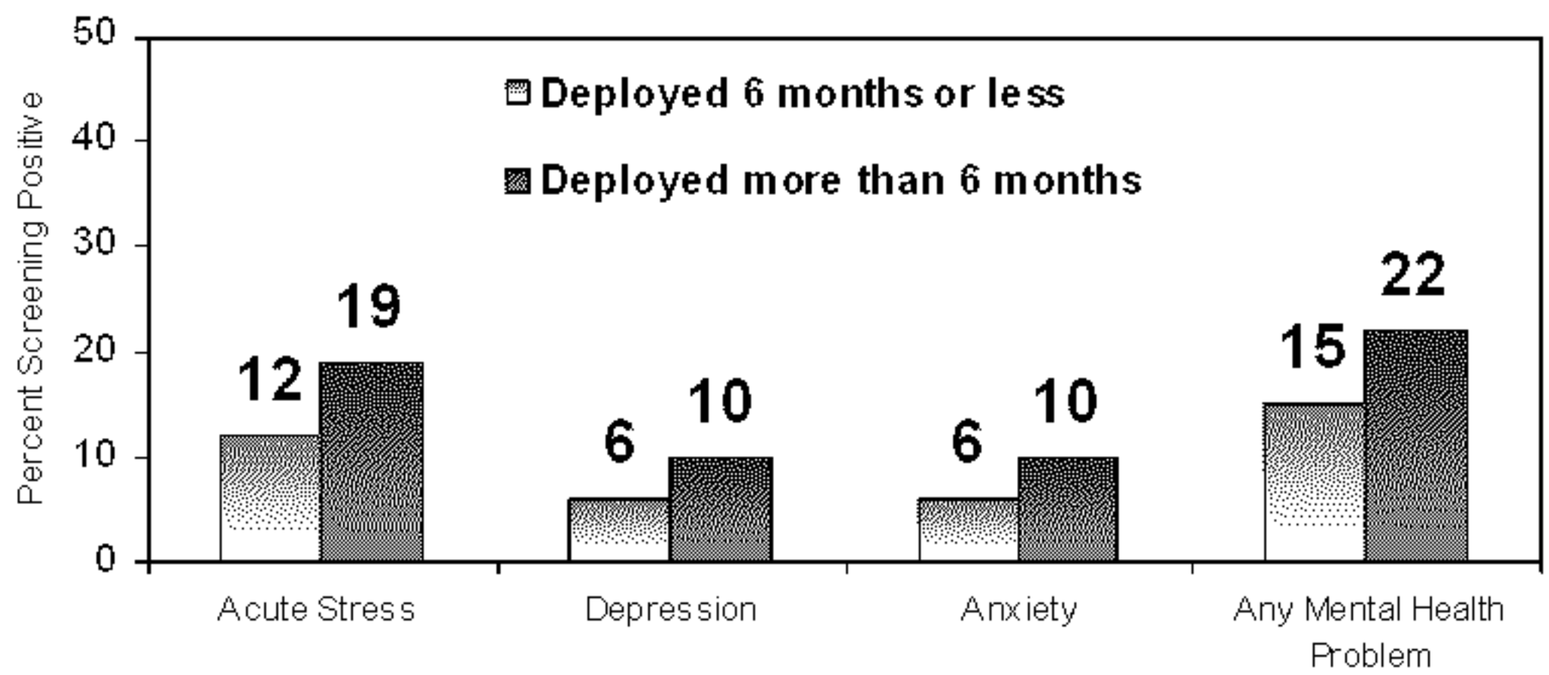


Figure 9. Percent of OIF 05-07 Soldiers that deployed for 6 months or less or for more than 6 months that screened positive for acute stress (PTSD), depression, anxiety or any mental health problem.

Psychological Stigma and Organizational Barriers to Care

As noted previously, 20% of OIF 05-07 Soldiers and 15% of OIF 05-07 Marines screened positive for a mental health problem (depression, anxiety or acute stress). Of those who screened positive, only 42% of Soldiers and 38% of Marines sought help from a behavioral health provider, primary care provider or chaplain. One reason Soldiers don't seek mental health care is because of psychological stigma (see Figure 10). The most frequently cited reasons Soldiers and Marines endorse for not seeking mental health care are concerns that their leadership would treat them differently, that they would be seen as weak, that members of their unit would have less confidence in them, and that it would harm their career. Of particular note is that psychological stigma of OIF 05-07 Soldiers about mental health services is higher than that of OIF 04-06 Soldiers and Marines. In addition, 37% of OIF 05-07 Soldiers and Marines report that they don't trust mental health professionals.

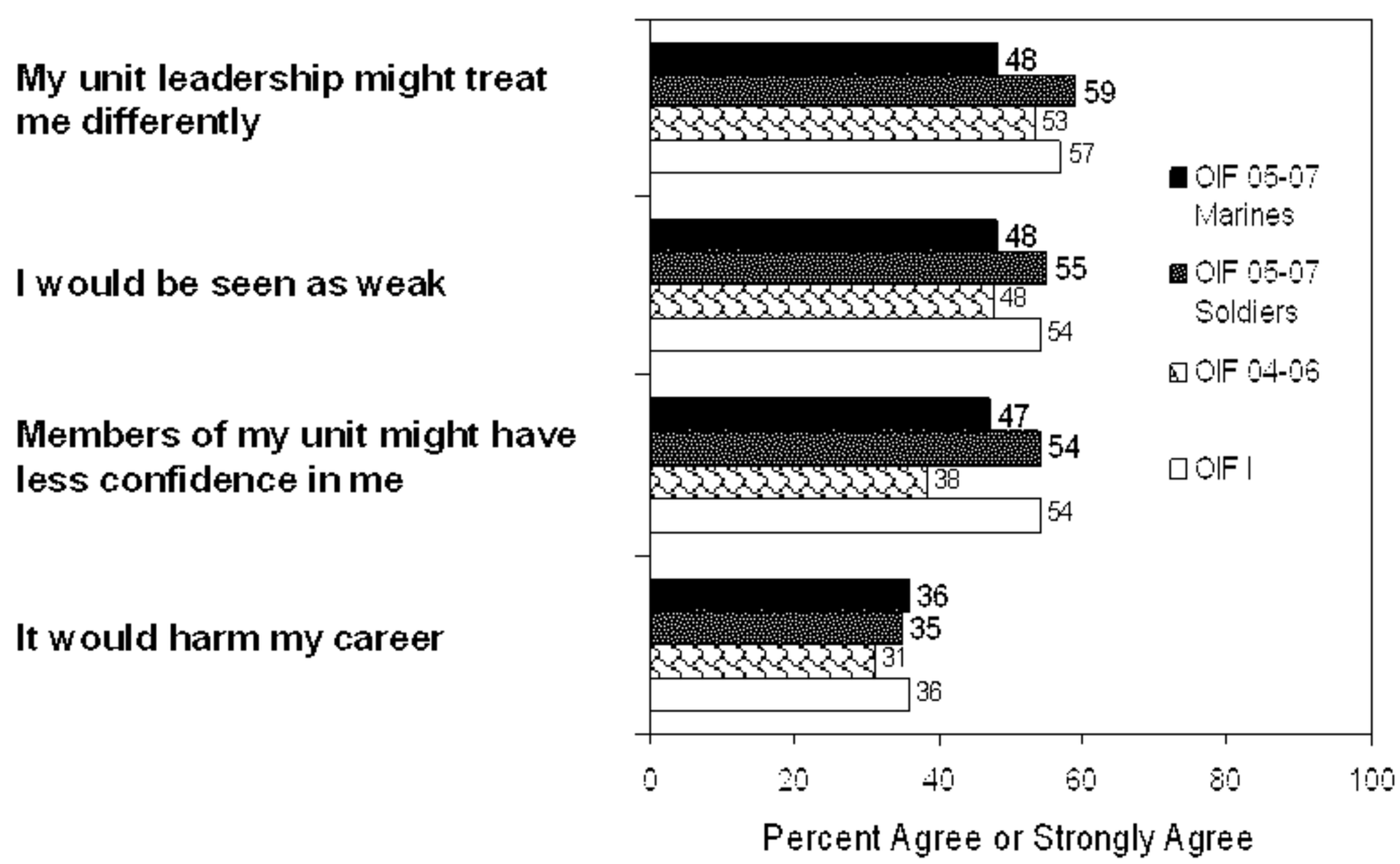


Figure 10. Percent of Soldiers and Marines that screened positive for a mental health problem (anxiety, depression or acute stress) who agree or strongly agree with statements reflecting psychological stigma.

Another reason Soldiers and Marines that screened positive for a mental health problem don't get help is the presence of organizational barriers that make it difficult for them to access mental health services. The number one organizational barrier endorsed by both Soldiers and Marines is that they have difficulty getting time off from work; and unfortunately this barrier has not decreased since OIF I (see Figure 11). Other organizational barriers have decreased for Soldiers since OIF I. These include a decline

in the difficulty of getting to the location where the mental health specialist is located and an increase in the availability of mental health services.

OIF 05-07 Marines are twice as likely to report that mental health services aren't available compared to OIF 05-07 Soldiers (14% versus 7%), and that they have greater difficulty getting to where mental health specialists are located (9% versus 7%). This finding is consistent with the number of behavioral health personnel staff located in the region where the Marines are located. While nearly every region has a ratio over 1 provider for 1,000 service members, the Marines have a ratio of only 1 provider for over 2,000 service members, suggesting that the staffing level for Marines is insufficient.

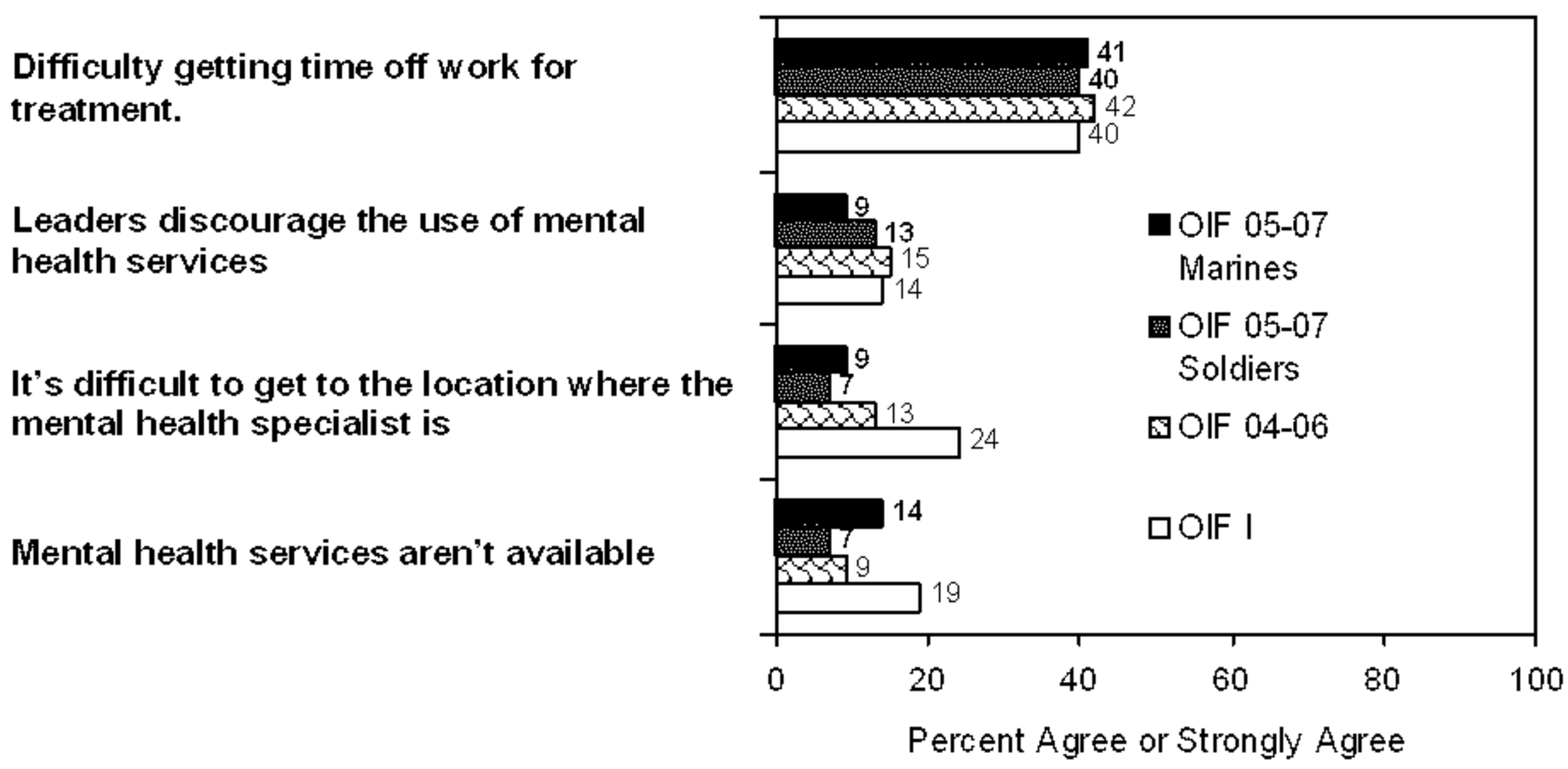


Figure 11. Percent of Soldiers and Marines that screened positive for a mental health problem (anxiety, depression or acute stress) who agree or strongly agree with statements reflecting organizational barriers to accessing mental health services.

Leadership (NCO and Officer) and Mental Health and Well-Being

Figures 12 and 13 show Soldier and Marine perceptions of NCO and officer leadership. In general, Marines have more positive perceptions of their leaders than do Soldiers. For instance, Marines ratings of their officers were significantly higher than Soldiers ratings of their officers. The mean rating of officer leadership for Marines was 3.28 (on a scale of one to five, with five being the highest) versus a mean of 3.03 for Soldiers ($F(1,1,820) = 4.78$, $p < .029$). Marine ratings of NCO leadership did not differ significantly from Soldier ratings of NCO leadership, means of 3.15 and 2.99, respectively.

Importantly, Soldiers and Marines who rated NCO leadership as high were significantly less likely to screen positive for a mental health problem compared to those Soldiers who rated their NCO leadership as low (28% vs. 11%; $p < .01$). This relationship holds even when controlling for Soldiers'/Marines' levels of combat experience. For Soldiers in the High Combat condition, only 20% screened positive for a mental health problem when they viewed their leaders as good compared to 40% who screened positive when they viewed their leaders as poor (X^2 (441) = 20.85, $p < .01$). For Soldiers in the Medium Combat condition, when they viewed their leaders as good 8% screened positive for a mental health problem compared to 27% screening positive for a mental health problem when they viewed their leaders as poor (X^2 (442) = 26.10, $p < .01$). For Soldiers in the Low Combat condition, only 4% screened positive for a mental health problem when they viewed their leaders as good compared to 18% who screened positive for a mental health problem when they viewed their leaders as poor (X^2 (419) = 19.75, $p < .01$).

A similar pattern is also seen for Marines. For Marines in the High Combat condition, only 19% screened positive for a mental health problem when they viewed their leaders as good compared to 44% who screened positive when they viewed their leaders as poor (X^2 (126) = 9.12, $p < .01$). For Marines in the Medium Combat condition, when they viewed their leaders as good 6% screened positive for a mental health problem compared to 19% screening positive for a mental health problem when they viewed their leaders as poor (X^2 (134) = 5.19, $p < .03$). For Marines in the Low Combat condition, only 4% screened positive for a mental health problem when they viewed their leaders as good compared to 13% who screened positive for a mental health problem when they viewed their leaders as poor (X^2 (172) = 4.79, $p < .03$).

These data clearly demonstrate the protective influence that good leadership plays in maintaining Soldier and Marine mental health and well-being, even in the face of extreme combat conditions.

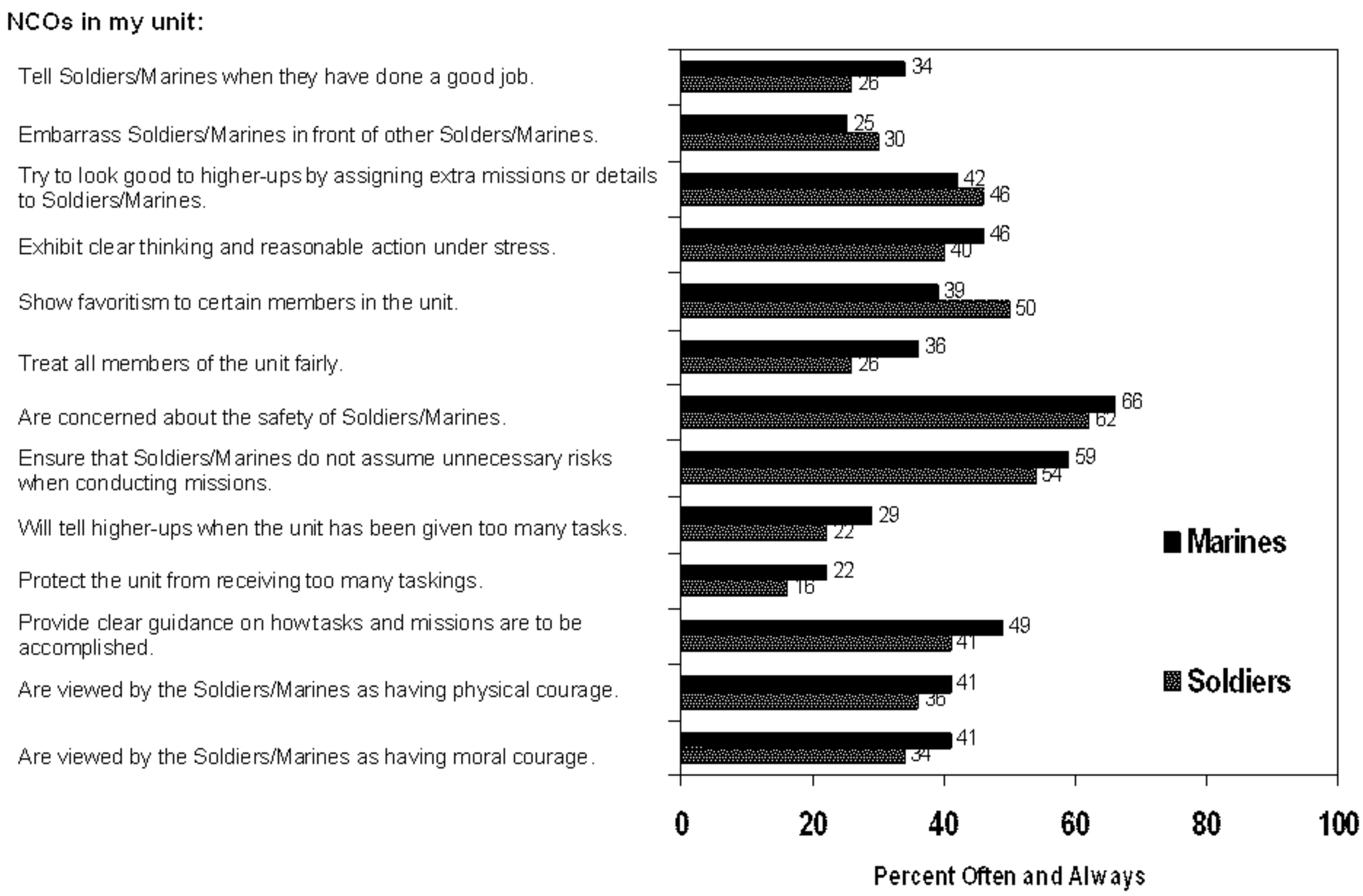


Figure 12. Soldier and Marine perceptions of Non-commissioned Officer (NCO) Leadership during OIF 05-07.

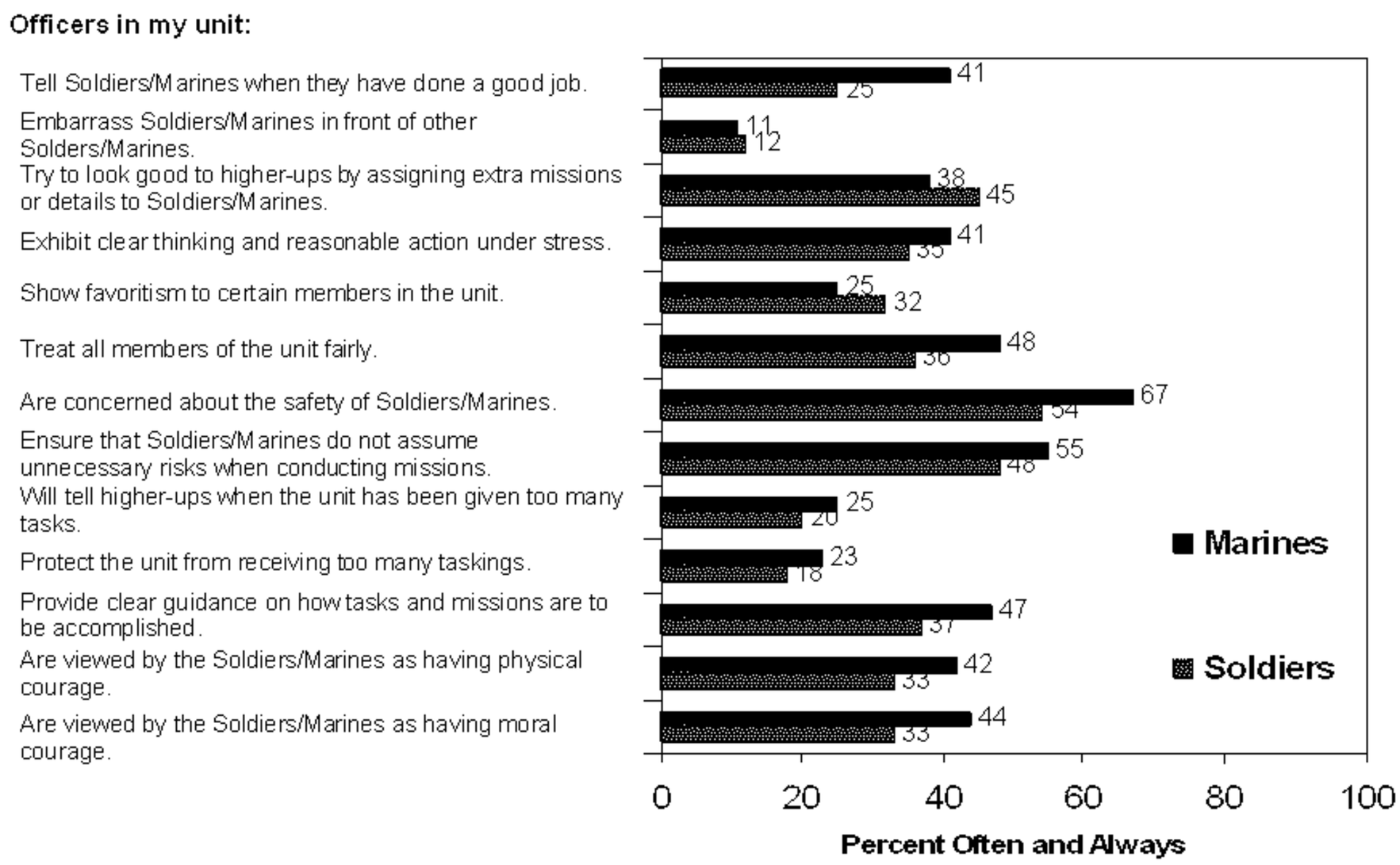


Figure 13. Soldier and Marine perceptions of Officer Leadership during OIF 05-07.

Gender and Behavioral Health Status

The MHAT IV sample consisted of 188 female Soldiers and 30 female Marines. Due to the small sample size of female Marines, all subsequent analyses only included female Soldiers. Overall, there were no significant differences between male and female Soldiers in terms of screening positive for anxiety (8.7% versus 8.0%), depression (8.7% versus 8.0%), or acute stress (PTSD) (19.5% versus 19.1%). However, when the level of combat was considered, gender differences did emerge between male and female Soldiers. Whereas, only 9% of male Soldiers screened positive for any mental health problem in the Low Combat condition, 17% of female Soldiers screened positive for any mental health problem in the Low Combat condition $X^2(419) = 4.32$, $p < .03$). A breakdown by the three mental health categories for the Low Combat condition revealed marginally significant differences between male and female Soldiers for anxiety (3% versus 7%; $X^2(419) = 3.31$, $p < .07$), depression (4% versus 8%; $X^2(419) = 3.11$, $p < .08$), and acute stress (PTSD) (7% versus 12%; $X^2(419) = 2.30$, $p < .13$), with female Soldiers more likely to screen positive for all three mental health categories compared to male Soldiers.

For the Medium Combat condition, although female Soldiers differed from male Soldiers for acute stress (PTSD) (13% versus 18%), these differences were not significant ($X^2(419) = .95$, $p = .22$). Neither anxiety (8% versus 9%) nor depression (8% versus 8%) rates differed between male and female Soldiers in the Medium Combat condition. Due

to the small number of female Soldiers (n = 11) reporting experiencing high levels of combat, we were unable to determine if gender differences in mental health status exists under high combat.

Marital Stability

Overall, marital satisfaction is high, yet there is a downwards trend since OIF1. For example, in response to the question regarding, "I have a good marriage," there was a 10% drop from OIF I to OIF 05-07 in the number of Soldiers who agree or strongly agree with that statement. Similar declines were observed for the other marital satisfaction items (see Figure 14).

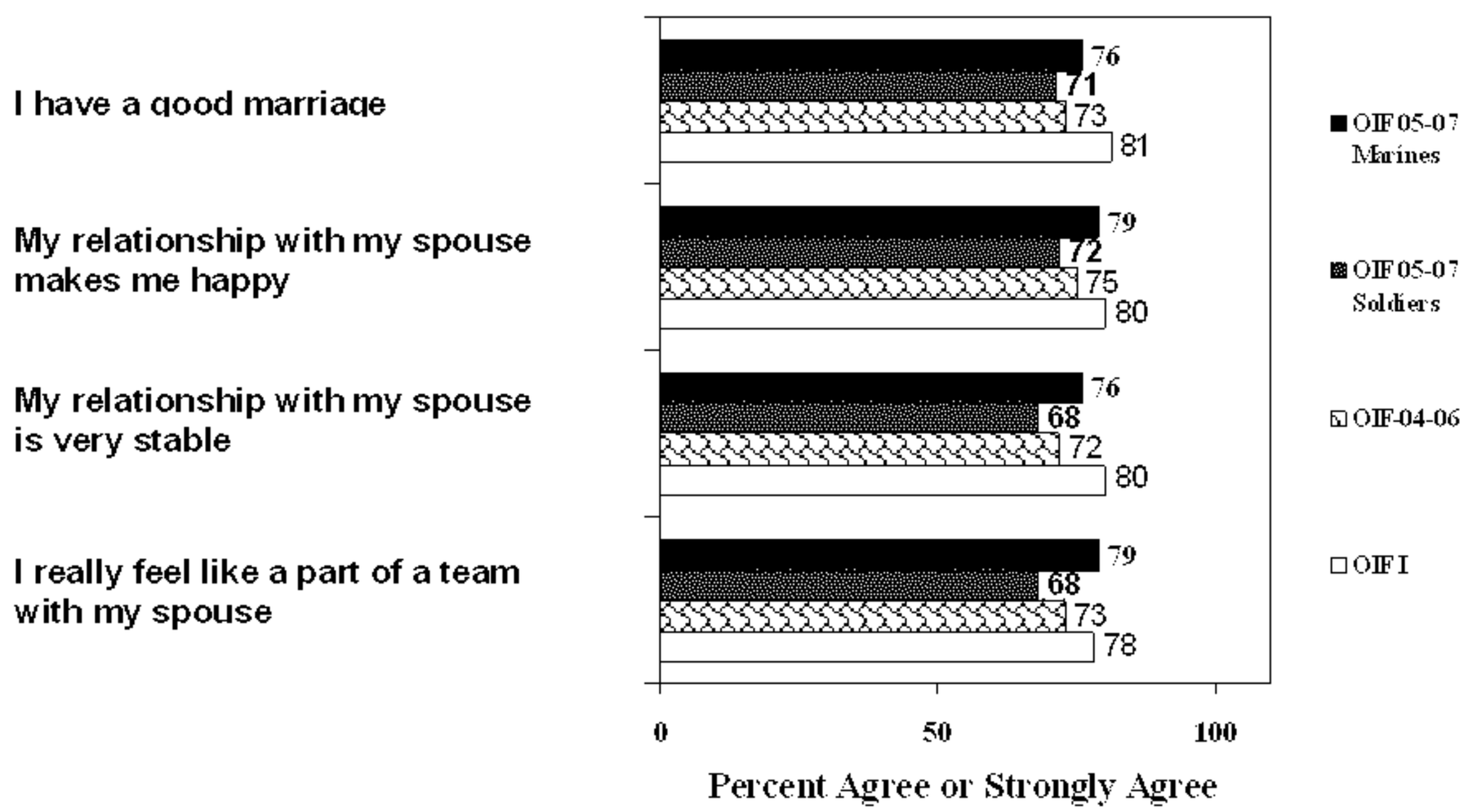


Figure 14. Percent of married OIF I, OIF 04-06 and OIF 05-07 Soldiers and Marines who agree or strongly agree with statements reflecting marital satisfaction.

Figure 15 shows the percent of married OIF I, OIF 04-06 and OIF 05-07 Soldiers and Marines who reported infidelity as a problem or reported that they are planning a separation/divorce. As one can see, a higher percentage of OIF 05-07 Soldiers reported marital problems than OIF I and OIF 04-06 Soldiers and OIF 05-07 Marines. For instance, 20% of OIF 05-07 Soldiers reported that they or their spouse were currently planning a divorce/separation, while only 15% of OIF 04-06 Soldiers and 13% of Marines reported that they or their spouse were planning a divorce/separation. Not surprisingly, deployment length was related to marital problems, with 31% of Soldiers deployed for more than six months reporting marital concerns compared to 19% of Soldiers deployed for six months or less (X^2 (636) = 9.61, $p < .01$). Specifically, over 22% of Soldiers deployed for more than six months reported that they or their spouse were planning a divorce/separation compared to 14% of Soldiers deployed for six months or less (X^2 (635) = 5.13, $p < .02$). Deployment length was also related to

Soldier reports of infidelity being a problem, with 10% of Soldiers deployed for less than six months reporting infidelity being a problem compared to 17% of Soldiers deployed for six months or more (X^2 (642) = 10.77, $p < .005$).

There were no differences between Soldiers who were first-time deployers and multiple deployers for either Soldier or Spouse currently planning to get a divorce or separation (19.5% versus 19.1%) or infidelity being a problem during the deployment (15.5% versus 15.1%). However, many Soldiers reported that they had missed significant events (anniversaries, children's birthdays, etc.) due to being deployed or being away from home training for deployments.

For Marines, it was not possible to determine the impact of deployment length on marital concerns due to there being an insufficient number of Marines surveyed who has been deployed for six months or more. It was possible, however, to assess the impact of multiple deployments on marital concerns. Similar to Soldiers, there were no differences between Marines who were first-time deployers and multiple deployers for either Soldier or Spouse currently planning to get a divorce or separation (13.2% versus 13.5%) or infidelity being a problem during the deployment (14.5% versus 15.4%).

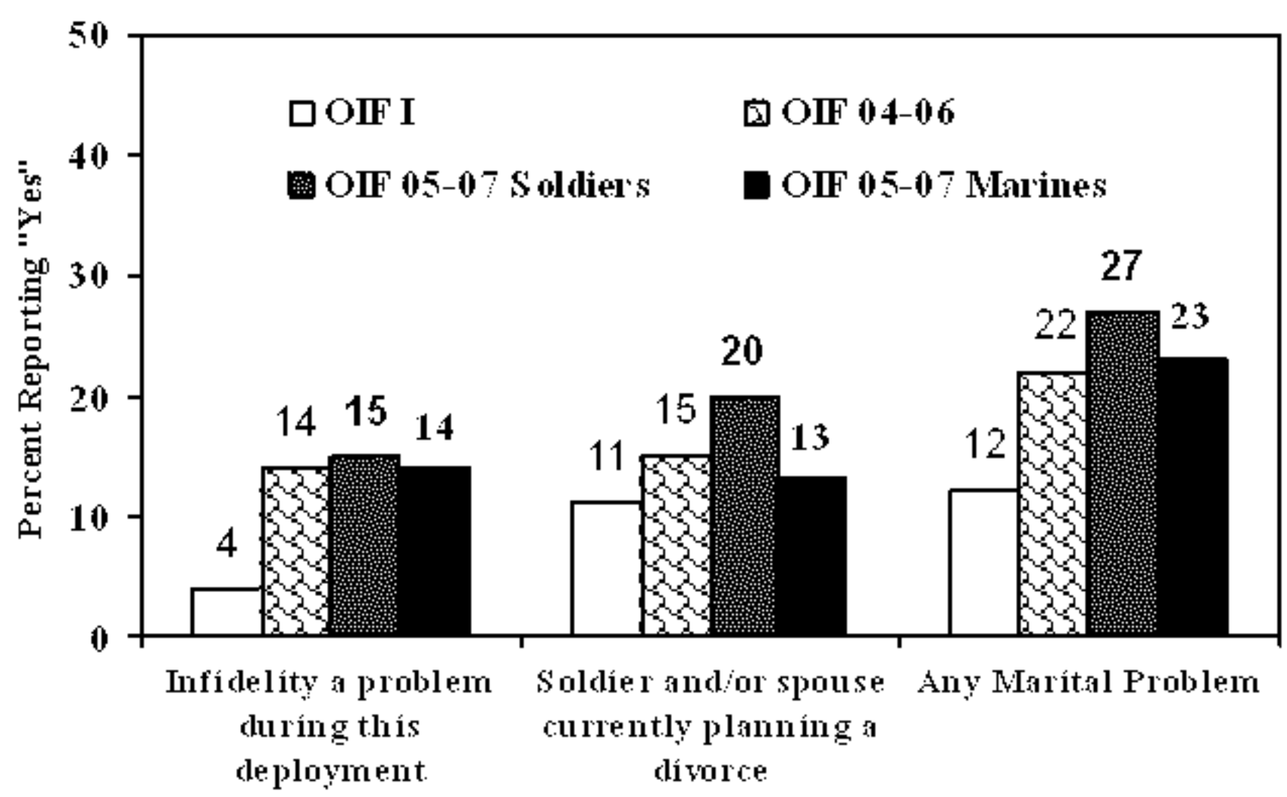


Figure 15. Percent of married OIF I, OIF 04-06 and OIF 05-07 Soldiers and Marines reporting infidelity problems or plans to separate or divorce.

Summary of Findings

Combat experiences for Soldiers and Marines in OIF 05-07 remain high. Mental health issues also remain a concern. However, not all Soldiers and Marines are at equal risk for screening positive for a mental health problem. Soldiers and Marines experiencing high levels of combat are three times as likely to screen positive for a mental health

problem compared to Soldiers and Marines who experience relatively low levels of combat. Not surprisingly, deployment length and multiple deployments to Iraq were related to Soldier mental health and well-being, with Soldiers deployed longer than six months and Soldiers on their second deployment to Iraq more likely to screen positive for a mental health problem than Soldiers who were deployed less than six months or on their first deployment. Longer deployments were also associated with marital problems. Soldiers and Marines still report considerable difficulties accessing mental health care, particularly in getting time off from duty to receive treatment. Very few Soldiers received in-theatre R&R. Overall Soldier and Marine morale remains relatively low. Soldiers and Marines expressed frustration, anger and/or resentment at the creation of basecamp rules and policies with no apparent linkage to maintaining combat readiness. Notably, good leadership (i.e., positive leader behaviors) plays an important role in maintaining Soldier and Marine mental health and well-being.

Recommendations: Soldier & Marine Mental Health and Well-Being

1. Mandate all Soldiers and Marines attend small-group PRE-deployment Battlemind Training. (FORSCOM/HQMC)

2. Mandate all Soldiers and Marines receive small group POST-deployment Battlemind Training. (FORSCOM/HQMC)

3 Educate and train junior NCOs and officers in the important role they play in maintaining Soldier/Marine mental health and well-being by including behavioral health awareness training in ALL junior leader development courses, beginning with the Warrior Leader Course (WLC) and the Officer Basic Course (OBC). (TRADOC/TECOM)

4. Revise the combat experiences scale to include "sniper attacks." (WRAIR/Future MHATs)

5. Extend the interval between deployments to 18-36 months or decrease deployment length to allow additional time for Soldiers to re-set following a one-year combat tour. (HQ DA/HQMC) Assess the optimal time for Soldiers/Marines to "reset" their mental health and well-being. (HQ DA/HQMC & MEDCOM/MRMC)

6. Re-evaluate the in-theatre R&R policy to ensure that Soldiers (and Marines) who work primarily outside the basecamps/FOBs receive in-theatre R&R, to include reducing the actual travel time to and from the R&R site. (MNF-I J-3 & J-1)

7. Develop standardized procedures for conducting Battlemind Psychological Debriefings to replace Critical Event Debriefings and Critical Incident Stress Debriefings following deaths, serious injuries and other significant events. (MNF-I Surgeon & MRMC/OPNAV & NMRC)

8. Develop interventions to reduce the impact of combat and deployment length on the mental health and well-being of Soldiers/Marines. (MNF-I Surgeon & MRMC/OPNAV & NMRC)

9. Standardize basecamp and FOB rules to eliminate those rules that don't pertain to combat readiness, avoiding the establishment of garrison-like standards. (MNF-I CSM)

10. Publish a policy that ensures Soldiers/Marines are able to access mental health care during the duty day.

BATTLEFIELD ETHICS

At the request of GEN Casey, CG, Multinational Forces-Iraq, the MHAT IV developed survey items and focus group interview questions that specifically addressed the issue of battlefield ethics and the adequacy of battlefield ethical training for preparing Soldiers and Marines conducting combat operations in Iraq. This is the first time that MHAT has addressed the issue of ethics, and to our knowledge, the U.S. is the first country to systemically address this issue in Iraq, although the issue of ethics has been explored by the Canadian Defence Forces (CDF) (Thomson, Adams & Sartori, 2005).

A review of the scientific literature failed to identify ethical questions or scales suitable for use on a survey in a combat environment. Thus, the MHAT IV members and other military subject matter experts (SMEs) developed a set of survey questions that are unique not only to this MHAT assessment, but to the entire field of battlefield ethics. These uniquely developed ethics questions addressed four areas: (1) Attitudes Regarding Treatment of Insurgents and Non-Combatants, (2) Battlefield Ethical Actions and Decisions, (3), Reporting Ethics Violations and (4) Battlefield Ethics Training.

Soldier and Marine **Attitudes Regarding the Treatment of Insurgents and Non-Combatants** was assessed using 5 questions, scored on a five-point scale ranging from Strongly Disagree (1) to Neither Agree or Disagree (3) to Strongly Agree (5); sample items included, "All non-combatants should be treated with dignity and respect" and "Torture should be allowed in order to gain important information about insurgents." **Battlefield Ethical Actions and Decisions** was assessed using 5 questions designed to assess how often a Soldier or Marine engaged in specific actions on the battlefield; responses were scored on a scale from Never, One Time, Two Times, Three or Four Times to Five or More Times; sample items included, "Insulted and/or cursed non-combatants in their presence" and "Witnessed the brutality/mistreatment of a non-combatant by a unit member." **Reporting Ethics Violations** was assessed using 6 questions scored on a five-point scale ranging from Strongly Disagree (1) to Neither Agree or Disagree (3) to Strongly Agree (5); sample items included, "I would report a unit member for the mistreatment of a non-combatant" and "I would report a unit member for not following General Orders." **Battlefield Ethics Training** was assessed using 5 questions regarding how well the Soldier or Marine felt trained in battlefield ethics, using a "Yes" or "No" response; sample items used included, "The training I received in the proper (ethical) treatment of non-combatants was adequate" and "I encountered ethical situations in Iraq in which I didn't know how to respond."

Again, it must be kept in mind that this is the first time these survey questions have been used, thus it is impossible to compare the findings from this MHAT IV assessment of Soldiers and Marines with any other group of military personnel. Rather, these findings must be viewed as a starting point, a snapshot, for how Soldiers and Marines view Iraqi insurgents and non-combatants, how these views translate into battlefield ethical actions, and how violations of these ethics are reported. With this information,

battlefield ethics training can be developed that specifically targets ethical dilemmas that Soldiers and Marines face on the ground in Iraq.

Figure 16 shows Soldier and Marine attitudes towards the treatment of non-combatants and insurgents. Soldiers and Marines are fairly similar in their attitudes towards the treatment of non-combatants and insurgents. Only 47% of Soldiers and only 38% of Marines agreed that non-combatants should be treated with dignity and respect. Well over a third of Soldiers and Marines reported torture should be allowed, whether to save the life of a fellow Soldier or Marine (41% and 44%, respectively) or to obtain important information about insurgents (36% and 39%, respectively).

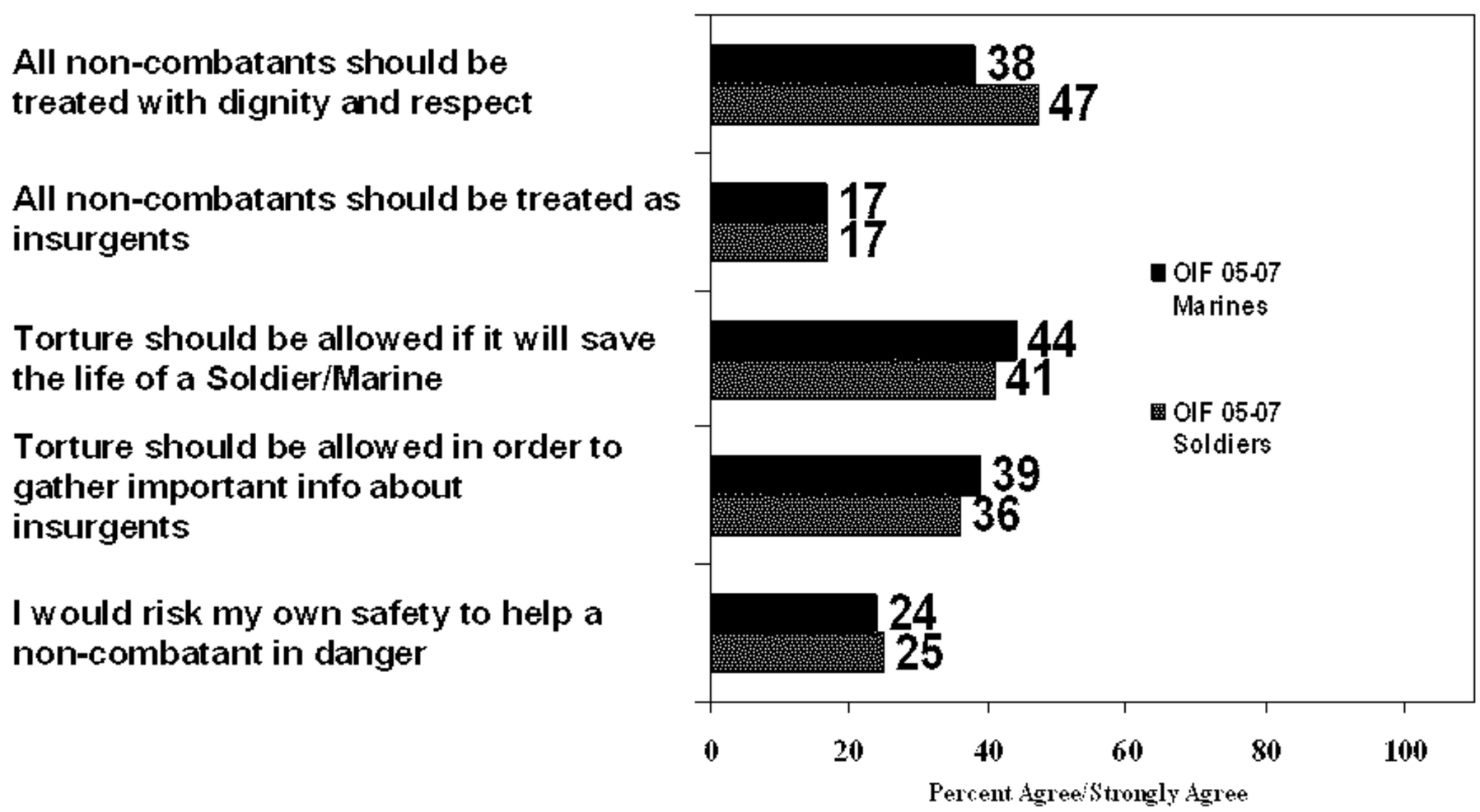


Figure 16. Soldier and Marine attitudes towards the treatment of insurgents and non-combatants.

Figure 17 shows findings from the battlefield ethics behaviors scale for both the mistreatment of non-combatants and following the ROE. The most common behavior Soldiers and Marines reported engaging in was cursing and/or insulting Iraqi non-combatants in their presence, with 28% of Soldiers and 30% of Marines reporting doing this. Far fewer Soldiers and Marines reported damaging or destroying Iraqi property when it was not necessary, 9% and 12%, respectively; or hitting or kicking a non-combatant when it was not necessary, 4% and 7%, respectively.

When it comes to Rules of Engagement (ROE), just less than 10% of Soldiers and Marines reported that their unit modifies the ROE to accomplish the mission. Importantly, Soldiers and Marines who reported better officer leadership were more likely to follow the ROE than those Soldiers and Marines who reported poorer officer leadership (X^2 (1,278) = 4.21, $p < .05$) and (X^2 (314) = 5.34, $p < .05$) respectively.

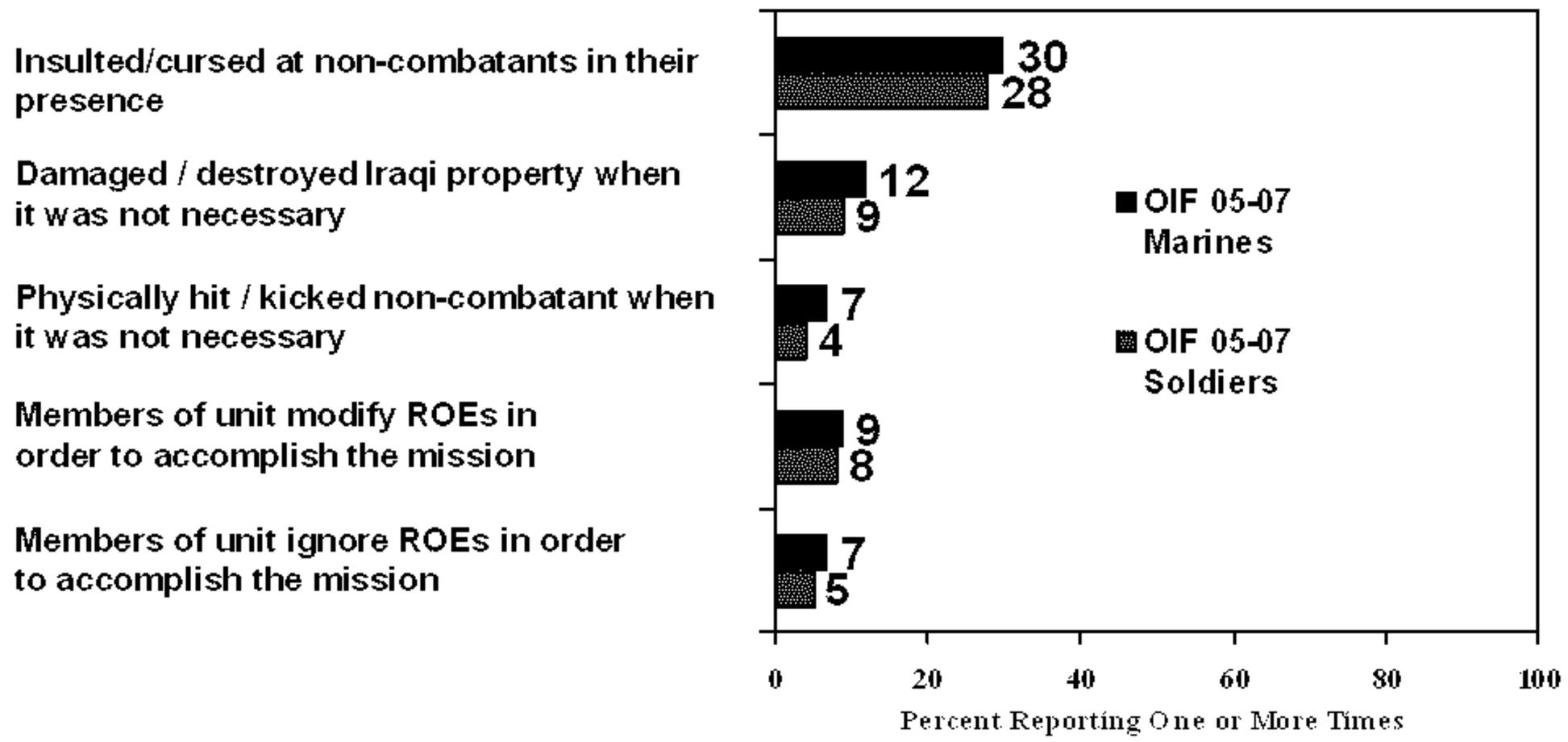


Figure 17. Soldier and Marine battlefield ethical behaviors.

Figure 18 shows Soldiers' and Marines' views on reporting battlefield ethics violations. The most likely battlefield ethics violation that Soldiers and Marines would report included a unit member injuring or killing an innocent non-combatant, with 55% of Soldiers agreeing that they would report a unit member and 40% of Marines agreeing that they would report a fellow Marine. Soldiers and Marines were least likely to report a unit member for unnecessarily destroying or damaging private property, with 43% of Soldiers indicating that they would report a unit member and 30% of Marines indicating that they would do so. Less than half of Soldiers and Marines would report a team member for an unethical behavior, with the Marines being less likely to report a fellow Marine than Soldiers reporting a fellow Soldier.

Figure 18. Soldier and Marine reporting of battlefield ethics violations.

A large majority of Soldiers and Marines reported that they received training in how they should treat non-combatants (see Figure 19), yet a third of Marines and over a quarter of Soldiers did not agree that their NCOs and Officers made it clear not to mistreat non-combatants. Further, over a quarter of both Soldiers (28%) and Marines (31%) reported facing ethical situations in which they didn't know how to respond.

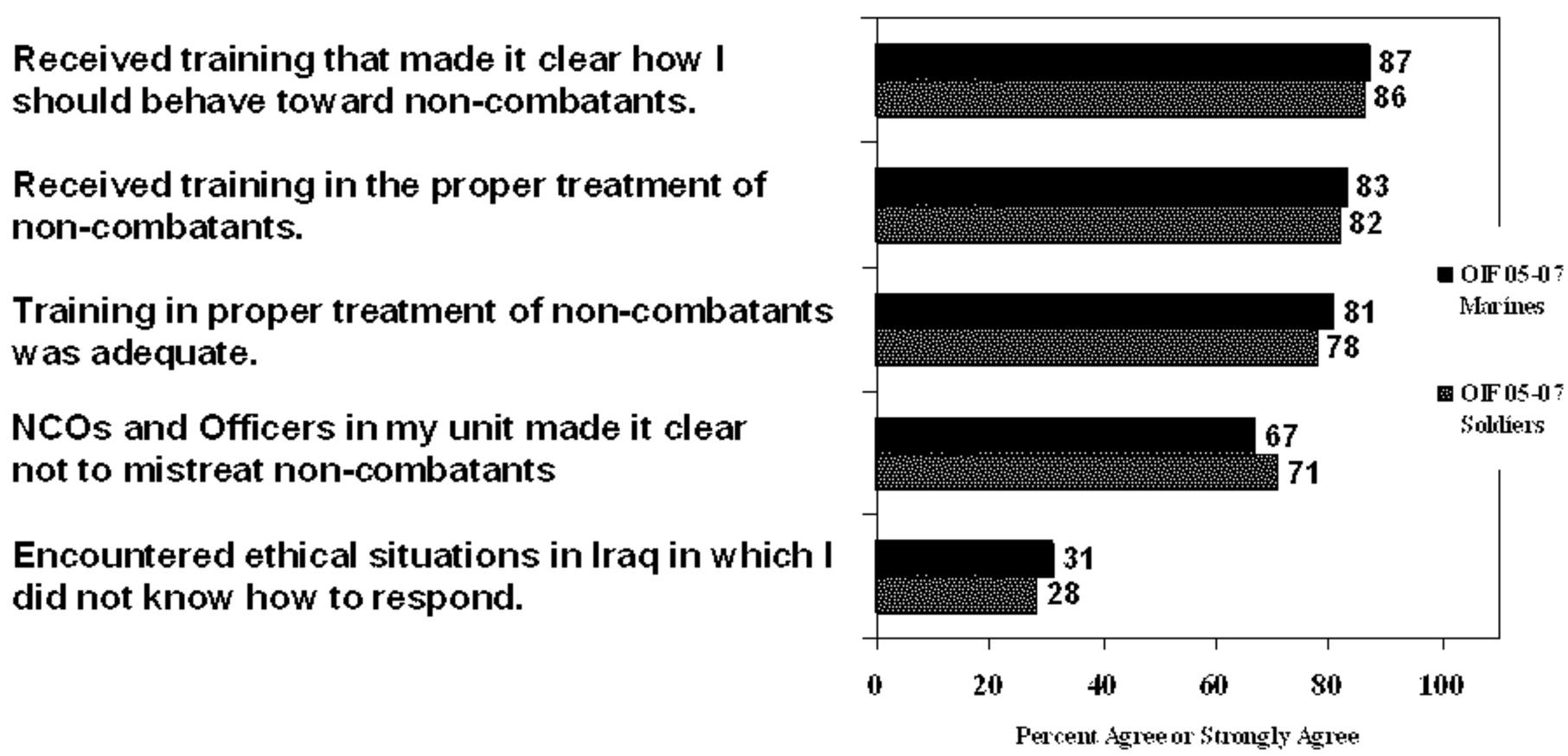


Figure 19. Soldier and Marine attitudes towards battlefield ethics training.

While there are undoubtedly many situations that might lead to the mistreatment of a non-combatant, one obvious situation in which unethical behaviors might occur is when the Soldier or Marine is angry. Figure 20 shows the relationship of Soldiers' and Marines' anger levels to the mistreatment of Iraqi non-combatants. As can be easily seen, Soldiers and Marines are more likely to report engaging in the mistreatment of Iraqi non-combatants when they are angry. For all the behaviors under study, Soldiers and Marines who had high levels of anger were twice as likely to engage in unethical behaviors on the battlefield compared to those Soldiers and Marines who had low levels of anger (X^2 (1,314) = 35.24, $p < .01$) and (X^2 (438) = 14.40, $p < .01$) respectively.

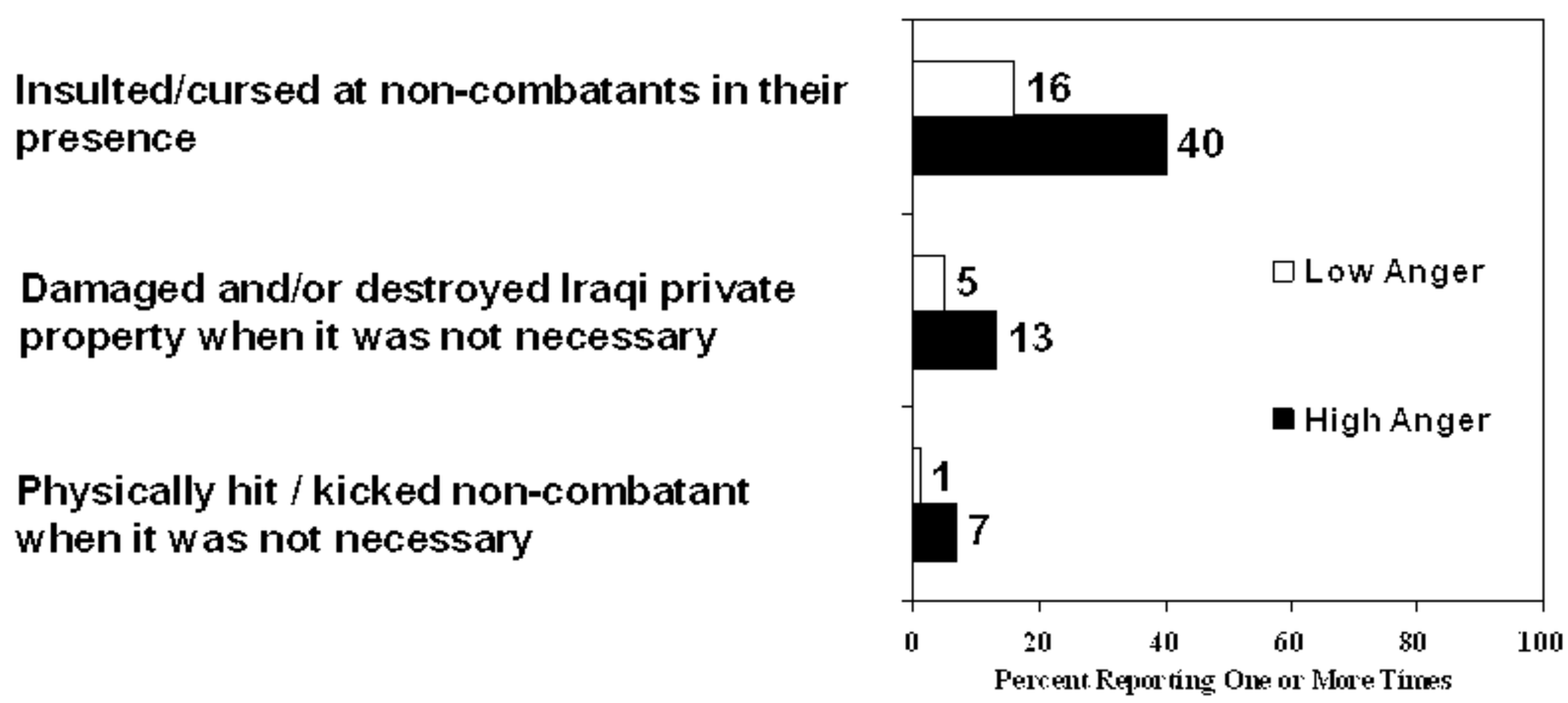


Figure 20. The effects of anger on the mistreatment of Iraqi non-combatants.

Figure 21 shows the relationship of mental health status and unethical behaviors on the battlefield. Soldiers who screened positive for a mental health problem (anxiety, depression or acute stress) were twice as likely to engage in unethical behavior compared to those Soldiers who did not screen positive. This relationship between mental health and unethical behavior holds even when controlling for anger. These findings indicate the need to include Battlefield Ethics awareness in all mental health counseling and anger management courses (X^2 (649) = 9.04, $p < .01$) (X^2 (247) = 3.53, $p < .05$) respectively.

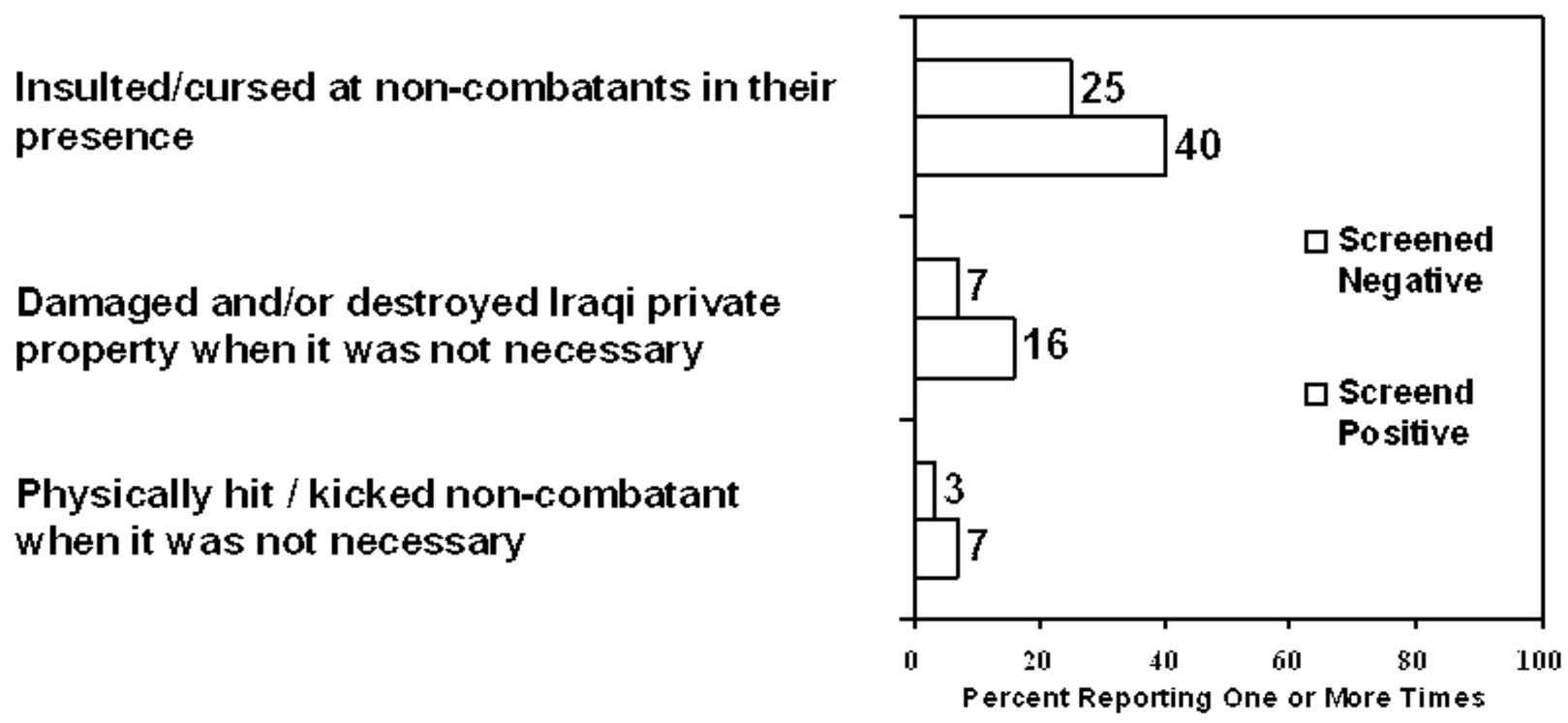


Figure 21. The effects of mental health (screening positive or negative for anxiety, depression and acute stress) on Soldiers' mistreatment of Iraqi non-combatants.

Combat experiences were also related to the mistreatment of non-combatants. As shown in Figure 22a, Soldiers who had a member of their unit become a casualty were more likely to engage in insulting or cursing at non-combatants in their presence (X^2 (871) = 16.06, $p < .01$) and report damaging or destroying Iraqi property when it was not necessary (X^2 (869) = 9.55, $p < .01$) than those Soldiers who did not have a member of their unit become a casualty.

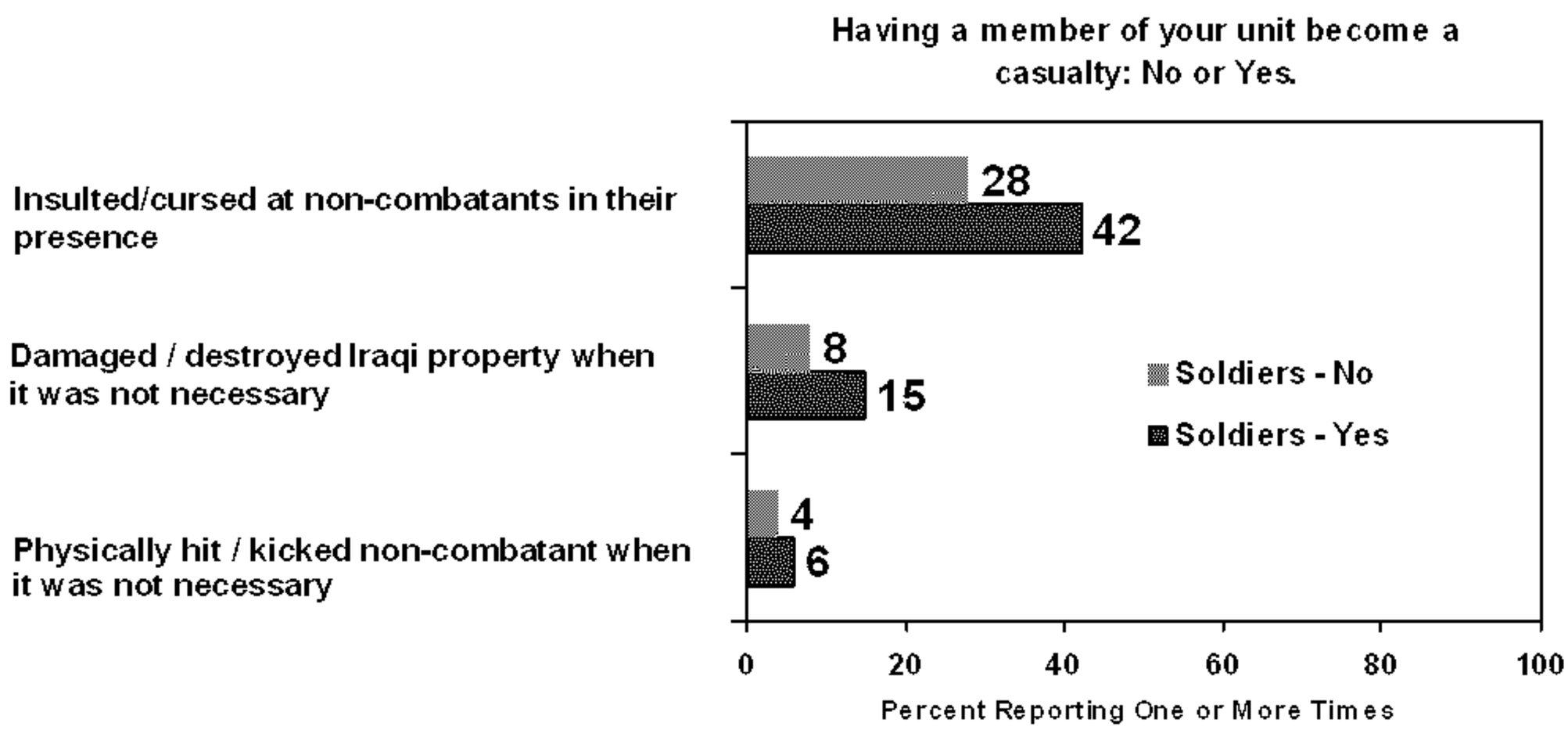


Figure 22a. The percentage of Soldiers with Medium or High Combat experiences reporting mistreatment of non-combatants as a function of whether they did (Yes) or did not (No) have a member of their unit become a casualty.

Figure 22b shows that Soldiers who handled dead bodies or human remains were also more likely to have insulted/cursed at non-combatants in their presence (X^2 (868) = 25.23, $p < .01$), damaged or destroyed Iraq property when it was not necessary (X^2(866) = 31.56, $p < .01$) or physical hit or kick a non-combatant (X^2 (868) = 15.34, $p < .01$) when it was not necessary compared to Soldiers who did not handle dead bodies or human remains.

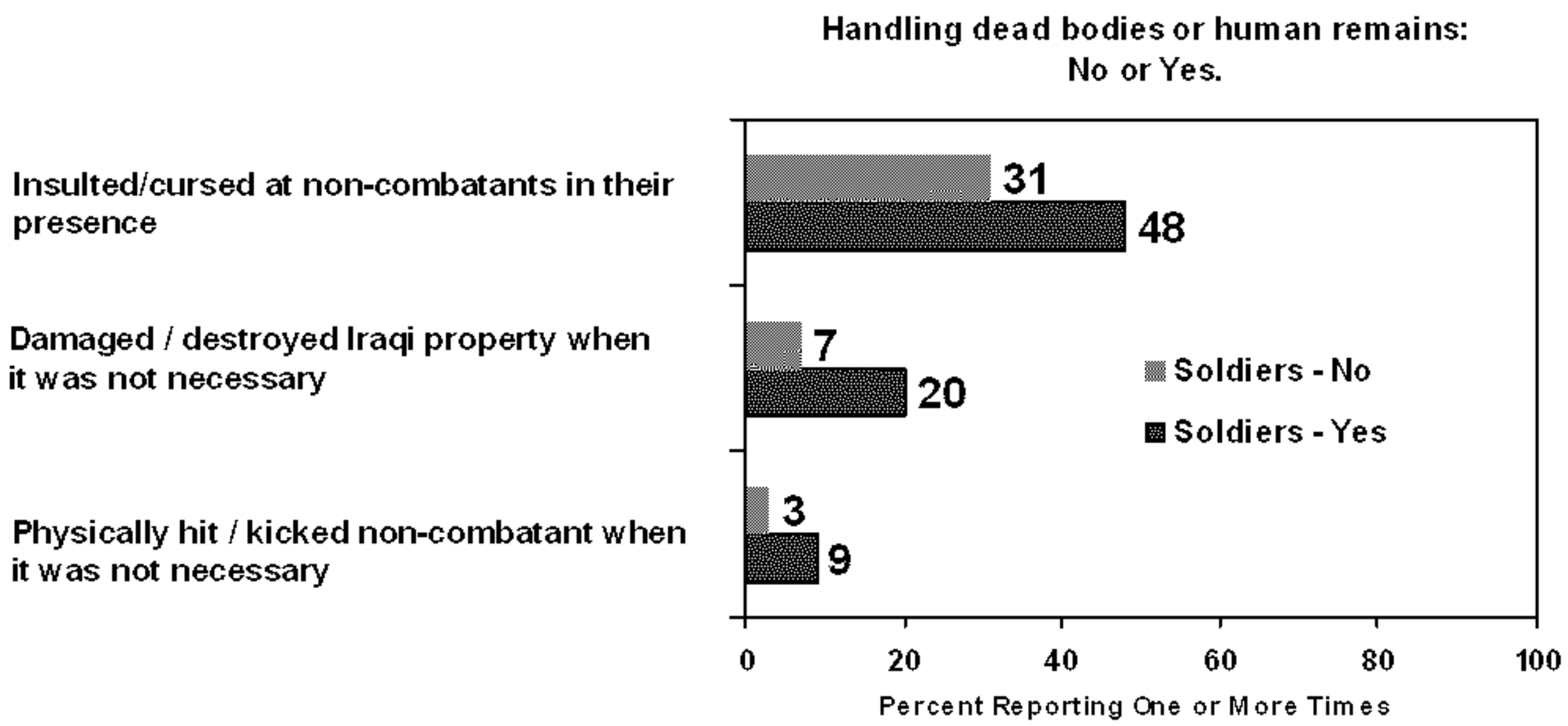


Figure 22b. The percentage of Soldiers with Medium or High Combat experiences reporting mistreatment of non-combatants as a function of whether they did (Yes) or did not (No) handle dead bodies or human remains.

As shown in Figure 23a, similar to Soldiers, Marines who had a member of their unit become a casualty were more likely to engage in insulting or cursing at non-combatants in their presence (X^2 (256) = 12.72, $p < .01$) or report damaging or destroying Iraqi property when it was not necessary (X^2 (256) = 3.57, $p < .05$) compared to Marines who did not handle dead bodies or human remains.

Figure 23b, shows that similar to Soldiers, Marines who handled dead bodies or human remains were also more likely to have insulted/cursed at non-combatants in their presence (X^2 (252) = 8.57, $p < .01$), damaged or destroyed Iraq property when it was not necessary (X^2 (252) = 7.14, $p < .01$) or physical hit or kick a non-combatant (X^2 (252) = 5.79, $p < .01$) when it was not necessary compared to Marines who did not handle dead bodies or human remains.

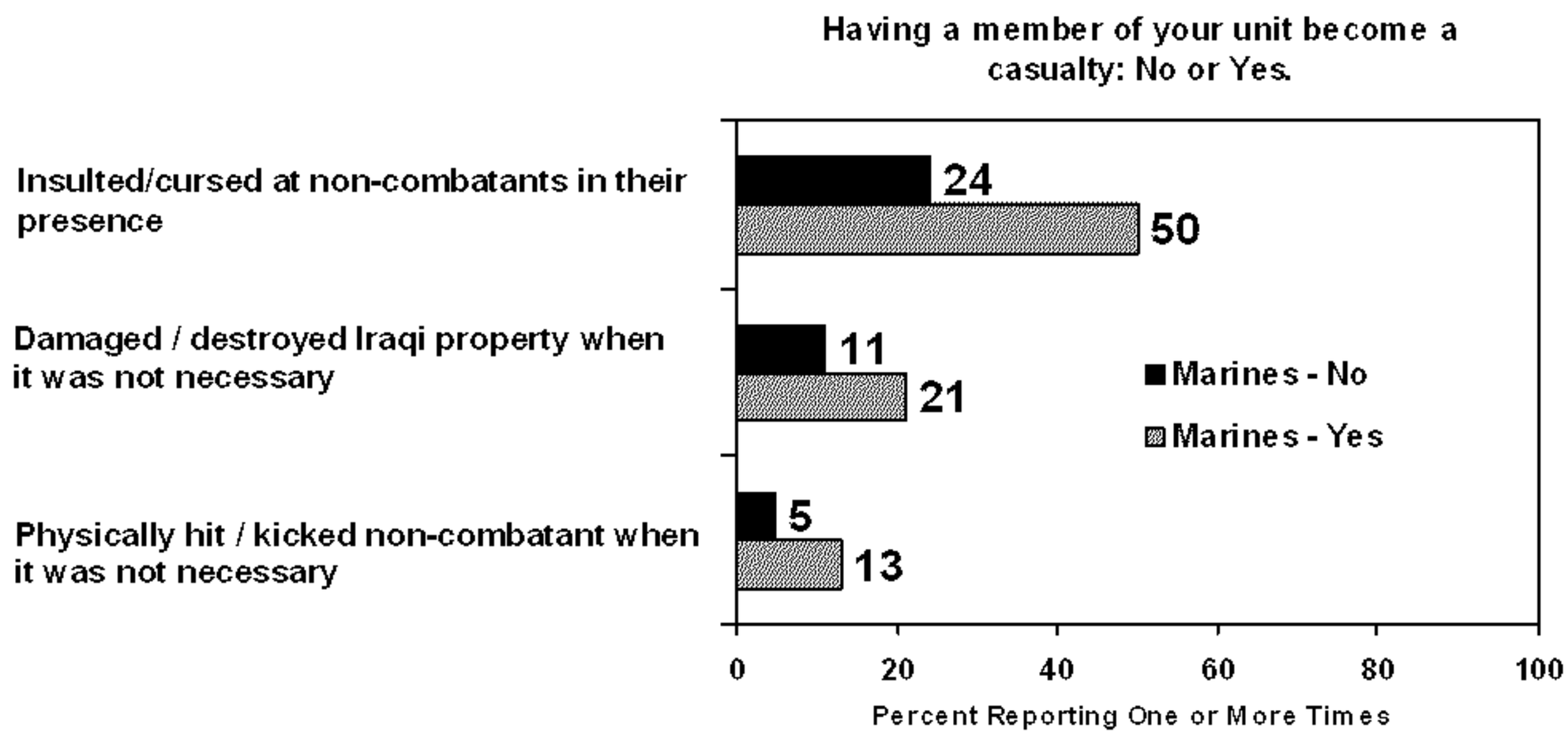


Figure 23a. The percentage of Marines with Medium or High Combat experiences reporting mistreatment of non-combatants as a function of whether they did (Yes) or did not (No) have a member of their unit become a casualty.

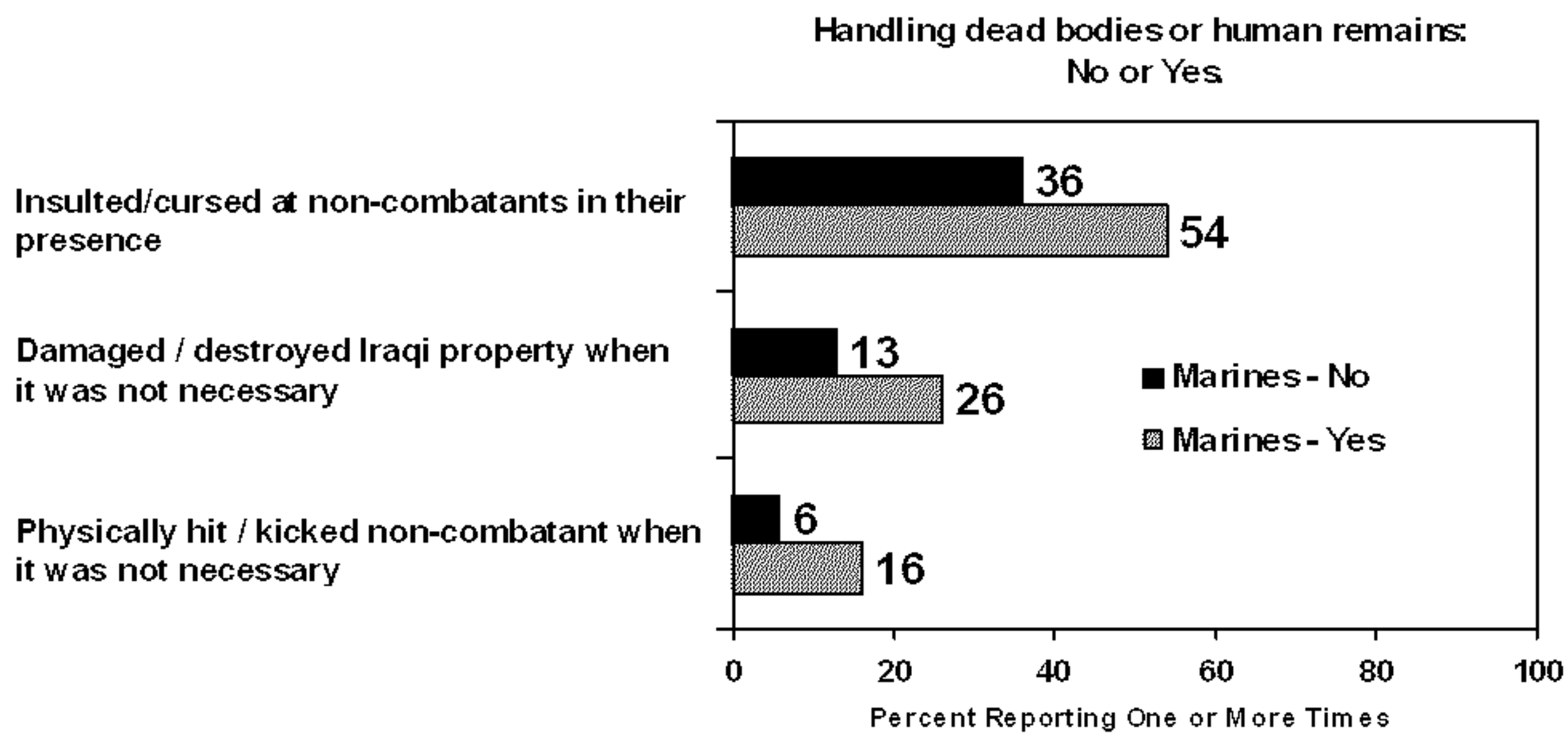


Figure 23b. The percentage of Marines with Medium or High Combat experiences reporting mistreatment of non-combatants as a function of whether they did (Yes) or did not (No) handle dead bodies or human remains.

Summary of Findings

Soldier and Marine Battlefield Ethics was assessed using survey items and focus group questions developed by the MHAT IV members per the request of the CG, MNF-I. Four Battlefield Ethics areas were assessed: attitudes, behaviors, reporting and training. Less than half of Soldiers and Marines believed that non-combatants should be treated with dignity and respect and well over a third believed that torture should be allowed to save the life of a fellow team member. About 10% of Soldiers and Marines reported mistreating an Iraqi non-combatant when it wasn't necessary, either by destroying their private property or by hitting or kicking them. Less than half of Soldiers or Marines would report a team member for unethical behavior, instead preferring to handle it themselves at the team level. Although reporting receiving ethical training, nearly a third of Soldiers and Marines reported encountering ethical situations in Iraq in which they didn't know how to respond. Having a unit member become a casualty or handling dead bodies and human remains were associated with increases in the mistreatment of Iraq non-combatants. High levels of anger and screening positive for a mental health problem were also associated with the mistreatment of Iraqi non-combatants.

Recommendations: Battlefield Ethics

1. Develop Battlefield Ethics Training based on the "Soldiers' Rules," using OIF-based scenarios so Soldiers and Marines know exactly what behaviors are acceptable on the battlefield and the exact procedures for reporting violations. (TRADOC/TECOM)

2. Incorporate battlefield ethics in all behavioral health counseling, especially counseling conducted in a combat theatre. (MEDCOM & OPNAV 093)

3. Include battlefield ethics in all anger management classes, especially training conducted in a combat theatre. (MNF-I Surgeon/MEDCOM & OPNAV 093)

4. Stress adherence to the Soldiers' Rules during After Action Reviews (AARs) following critical events. (MNF-I)

MILITARY TRANSITION TEAMS
MENTAL HEALTH AND WELL-BEING

MHAT IV surveyed 113 Soldiers from Military Transition Teams (MiTTs), Border Transition Teams (BTTs) and National Police Transition Teams (NPTTs). This assessment represents the first time Transition Team Soldiers have been included in a MHAT assessment.

Not surprisingly, the demographic make-up of the Transition Teams is quite different than that of Soldiers from Brigade Combat Teams (BCTs) (see Table 7). Soldiers on Transition Teams are more predominately male, 97% compared to 87% for Soldiers in a BCT. Soldiers on a Transition Team are also older, more senior in rank (more time in the military, 10 years versus 3 years), and are more likely to have a college degree. Transition Team members are more likely to be married and have children. There are no differences between Soldiers on Transition Teams and Soldiers in BCTs in terms of previous deployments and median years married.

In terms of mental health and well-being, Transition Team Soldiers have higher personal morale (31% versus 19%) and unit morale (19% versus 7%) compared to BCT Soldiers. Transition Team Soldiers also have lower rates of self-reported mental health problems (7% versus 13%), and are less likely to screen positive for a mental health problem (13% versus 20%).

Although the overall mental health and well-being of Transition Team Soldiers is high compared to Soldiers in BCTs, there is a significant percentage in need of mental health support (13%). Relying on Combat Stress Control (CSC) Detachments and mental health assets to provide mental health treatment at the places these teams pass through for logistical support is ineffective as it does not give Transition Team Soldiers seeking help the time needed to access and receive care. As is often the case, when a Transition Team Soldier wants help, he/she has to scramble to find someone or (as is usually the case) he/she must suck it up and drive on. Instead, each team should be assigned a CSC or MH team that routinely visits each Transition Team (i.e., conducts behavioral health care outreach) to ensure each Soldier's mental health needs are met.

Gender:	Female	3% (n= 3)
	Male	97% (n= 109)
Age	18-19	2% (n= 2)
	20-24	15% (n=17)
	25-29	25% (n=28)
	30-39	35% (n=39)
	40+	24% (n= 27)
Ethnicity/ Race:	White	70% (n=77)
	African-Am	10% (n= 11)
	Hispanic	12% (n= 13)
	Asian	6%(n= 6)
	Other	3%(n= 3)
Rank:	Jr. Enlisted	16% (n=18)
	NCO	24% (n=27)
	Sr. NCO	19% (n=21)
	Officer/WO	41% (n=46)
Education:	H.S./ GED	14% (n=15)
	Some College	25% (n=28)
	Assoc. Degree	13% (n=15)
	Bachelor's	36% (n=40)
	Master's/Ph.D.	13% (n=14)

Primary Component:	AC 68% RC 15% NG 17%
Median years in military:	10 years
Percent married :	65% (n =71)
Median years married	3 years
Soldiers with children:	61% (n = 66)
Deployments to Iraq:	
1st Time	68% (n = 70)
Multiple	32% (n = 33)
Average Months deployed (median):	6

Table 7. Demographics of the Transition Team members.

Summary of Findings

Overall, the mental health of the Military Transition Teams is high. However, there are approximately 13% of transition team members requiring mental health support. However, often these transition team members go without help due to their geographical isolation from basecamps were mental health personnel are located.

Recommendations: Military Transition Teams Mental Health and Well-Being

1. Provide far-forward behavioral health care outreach at the location of the Transition Team. (3rd MEDCOM/CSC Teams)

BEHAVIORAL HEALTH CARE SYSTEM ASSESSMENT

Behavioral Health Staffing and Distribution

The overall ratio of BH personnel to Soldiers during OIF 05-07 fell within the range of ratios for previous OIF deployments. The ratio of BH personnel to Soldiers ranged from 1:830 (OIF I) to 1:387 (OIF II), with the ratio for OIF 04-06 being 1:448 and OIF 05-07 being 1:688.

When looked at by operational regions (see Table 8), the ratio and distribution of BH personnel improved over time as the number of BH personnel increased. (b)(2)-2

(b)(2)-2

Table 8. The Distribution of BH Personnel & Ratio of BH Personnel to Soldiers by Operational Regions (2003-2005).

	OIF I SEP 2003			OIF II SEP 2004			OIF 04-06 OCT 2005		
REGION	BH	SOLDIERS	RATIO	BH	SOLDIERS	RATIO	BH	SOLDIERS	RATIO
(b)(3):[10 USC 130b]									
IRAQ TOTAL	140	116000	1:830	215	83200	1:387	230	103100	1:448

Note: Number of Soldiers from DoD reports and is rounded.

Compared to OIF 04-06, the overall number of OIF 05-07 BH personnel declined, while the number of Soldiers deployed to Iraq increased slightly, resulting in a slight increase in the ratio of BH personnel to Soldiers, 1:448 to 1:668. Most importantly, the range in the ratios of BH personnel to Soldiers increased significantly (see Table 9). (b)(2)-2

(b)(2)-2

Table 9. The Distribution of BH Personnel & Ratio of BH Personnel to Soldiers (and Marines) by Operational Regions (2003-2005).

	OIF 05-07 SEP 2006		
REGION	BH	SOLDIERS	RATIO
(b)(3):[10 USC 130b]	(b)(2)-2		
IRAQ TOTAL	190	127,000	1:668

Tables 10 and 11 contain additional information about the BH specialties by OIF operation and unit type of assignment.

Table 10. Behavioral Health Personnel Specialty by OIF Operation.

Specialty	OIF II	OIF 04-06	OIF 05-07
U.S. Army			
Psychiatrist	15	17	18
OT	8	9	11
Psych Nurse	12	21	12
Soc Work	27	30	23
Psychologist	17	21	14
Medic	5	0	5
OT Tech	8	12	7
MH Specialist	123	120	84
TOTAL	**215**	**230**	**174**
U.S. Navy			
Psychiatrist	-	-	4
Psychologist	-	-	2
Psych Tech	-	-	7
TOTAL	**-**	**-**	**13**
U.S. Air Force			
Social Worker	-	-	2
Psychologist	-	-	1
TOTAL	**-**	**-**	**3**
IRAQ THEATRE TOTAL	**215**	**230**	**190**

Table 11. OIF 05-07 Behavioral Health Personnel by Unit and Unit Type.

Unit	Unit Total	60W	65A	66C	73A	73B	N3	91X	91W	76D
(b)(2)-2										
Army Total	174	17	10	12	23	14	7	84	5	2
USN/USMC	13	4				2		7		
USAF	3				2	1				
THEATRE TOTAL	190	21	10	12	25	17	7	91	5	2

Methods

The following describes the methods used to collect data from Behavioral Health (BH) providers, Primary Care (PC) providers, and Unit Ministry Teams (UMT). Data were collected through written surveys of BH, PC and UMT personnel, and structured focus group and individual interviews with Behavioral Health personnel (see Appendices C-E). MHAT IV used very similar anonymous questionnaires as MHAT III and MHAT II. BH personnel surveyed included Army, Navy, and Air Force psychiatrists, occupational therapists, psychiatric nurses, social workers, clinical psychologists, occupational therapy specialists, and mental health specialists/psychological technicians. The PC personnel surveyed included Army and Navy primary care doctors, nurse practitioners, physician assistants, and medics/corpsman. UMT personnel surveyed included Army and Navy Chaplains and Chaplain Assistants (see Table 12).

Survey questions focused on demographics, standards of practice, coordination of services, BH services provided, skills and training in relation to BH services, perceived stigma and barriers to mental health care, methods to address Soldier BH needs, and personal well-being. Where possible, questions were standardized across the three groups of providers. Psychiatric medications were assessed on the BH and PC surveys and were completed by credentialed providers (MDs, PA, & Nurse Practitioners) only. BH and UMT personnel were asked who they thought was the best group and which groups should be allowed to participate in Battlefield Ethics training. Space was provided for participants to make comments regarding equipment/supplies needed to better perform their BH mission, as well as any additional comments.

Demographics

A sample of 123 BH, 260 PC, and 77 UMT surveys was collected. Table 12 depicts the military occupational specialty/area of concentration (MOS/AOC) of the BH, PC, & UMT staff. In addition, the region where BH personnel were assigned is presented in Table 13.

Specialty	Frequency	Valid Percent of Sample
Behavioral Health		
Psychiatrist	9 (6 Army, 3 Navy)	7
Occupational Therapist	7	6
Psychiatric Nurse	8	7
Social Worker	13	11
Clinical Psychologist	12 (8 Army, 3 Navy, 1 Air Force)	10
OT Specialist	7	6
Mental Health Specialist/ Corpsman	60 (54 Army, 6 Navy)	49
Other	6	5
Missing	1	-
TOTAL	123	
Primary Care		
MDs	59 (48 Army, 11 Navy)	23
Nurses	3	1
Physician Assistants	27	11
Medics/Corpsman	123 (84 Army, 39 Navy)	49
Other	41 (33 Army, 8 Navy)	17
Missing	6	-
TOTAL	260	
Unit Ministry Teams		
Chaplains	41 (37 Army, 4 Navy)	53
Chaplain Assistants	34 (31 Army, 3 Navy)	44
Other	2 (2 Navy)	3
Missing	1	-
TOTAL	77	

Table 12. Occupational Specialties of behavioral health and primary care providers and unit ministry teams.

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

	(b)(3):[10 USC 130b]	
Psychiatrist		9
Occ Therapist		7
Psych Nurse		8
Social Worker		13
Clinical Psychologist		11
OT Specialist		6
MH Tech		60
Other		6
TOTAL		

Table 13. Region in Iraq where behavioral health care personnel were located.

Demographics for BH, PC and UMT personnel are shown in Table 14. All three groups were predominately male, active duty, Army personnel. On average, providers were older than the Soldiers they support with UMT members being the oldest. The majority of BH and PC personnel were enlisted Soldiers while a slight majority of UMT personnel were officers. Each BH team supported an average of 5,000 Soldiers located on four FOBs. The OIF 05-07 BH teams traveled an average of two hours to perform outreach support.

	Age (Median)	Gender	Rank	Days Deployed	Branch of Service	Component
Behavioral Health	30-39 years old	71% males	59% enlisted	274 (mean)	89% Army, 10% Navy, <1% AF	62% Active Duty
Primary Care	30-39 years old	82% male	63% enlisted	274 (Mean)	76% Army, 23% Navy, <1% AF	92% Active Duty
Unit Ministry Teams	40 or older	88% male	46% enlisted	298 (mean)	89% Army, 11% Navy	77% Active Duty

Table 14. Demographics of behavioral health care and primary care providers and unit ministry team personnel.

Standards of Clinical Care

Figure 24 shows ratings of the standards of care by both BH and PC providers across OIF 04-06 and OIF 05-07. Ratings of standards are similar or more positive across the board for BH providers during OIF 05-07 compared to OIF 04-06. Although a higher percentage of BH providers in OIF 05-07 reported that the standards of behavioral healthcare in the theatre/area of operations were clear (62% vs. 53% in OIF 04-06), the difference is not statistically significant. A significantly higher percentage of BH

providers in OIF 05-07 reported that the standards for clinical documentation in the theatre/area of operations were clear (56% vs. 39% in OIF 04-06 (X^2 (225)= 8.68, p < .01)). Forty-one percent (41%) of OIF 05-07 BH personnel indicated that medical records management in the theatre/area of operations was clear versus 31% in OIF 04-06 (X^2 (226)= 4.24, p < .05). A higher percentage of BH providers in OIF 05-07 (36%) reported that the standards for the transfer of clinical BH information between levels of care were clear compared to 21% of providers in 04-06.

Ratings of standards among PC providers are similar in OIF 05-07 and OIF 04-06; the lone exception being standards of behavioral health care in the theatre of operations. A higher percentage of PC providers reported that the standards for behavioral healthcare in the area of operations (AO) were clear. Sixty-five percent (65%) of PC providers in OIF 05-07 reported that the standards of behavioral healthcare were clear. This is higher than OIF 04-06, where 53% of the PC providers reported that the standards were clear (X^2 (430) = 6.24, p < .05). However, a similar percentage of PC providers reported that standards for clinical documentation were clear (59% in OIF 05-07 vs. 57% in OIF 04-06); standards for records management (49% in OIF 05-07 vs. 53% in OIF 04-06); and standards for transfer of clinical information between levels of care in the theatre/area of operations (38% in OIF 05-07 vs. 35% in OIF 04-06). Finally, there are no significant differences between OIF 05-07 BH and PC providers on any of the ratings of clinical standards.

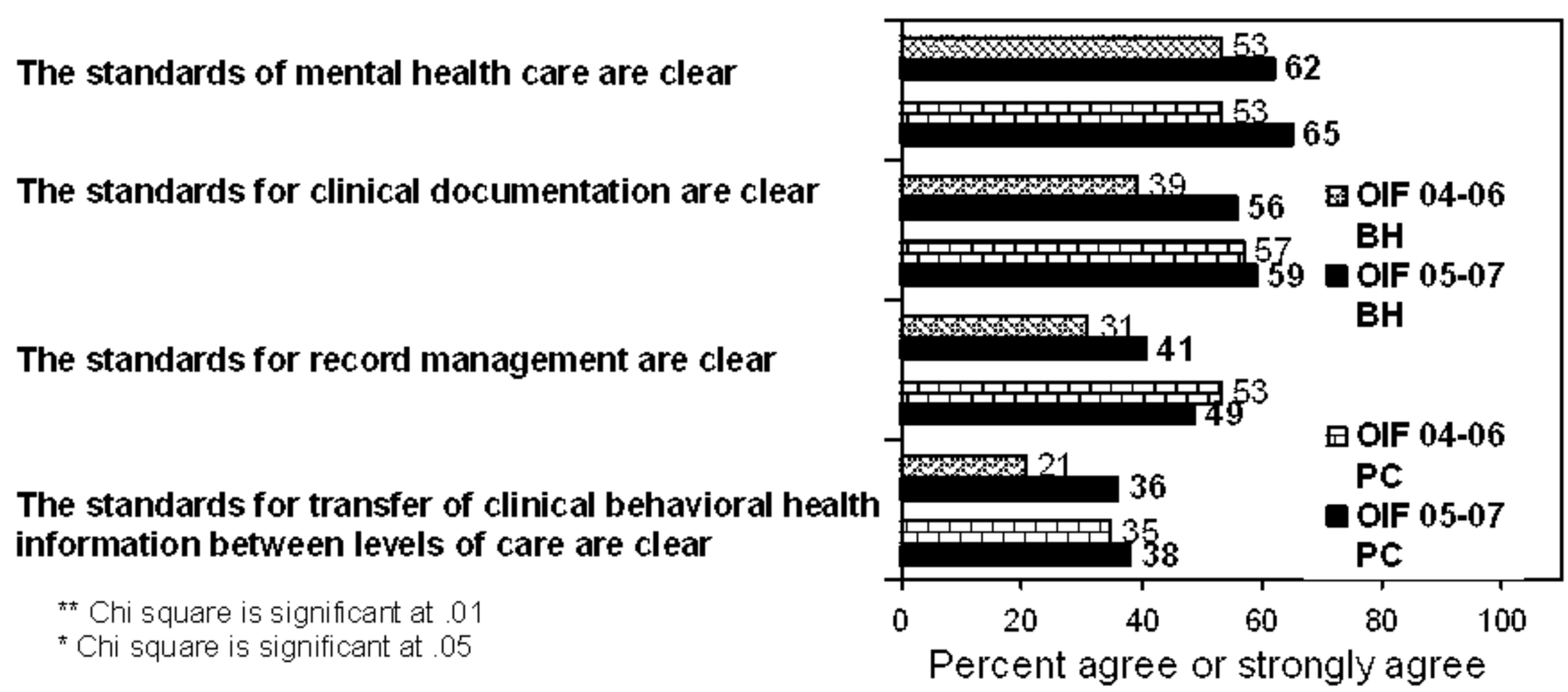


Figure 24. Percentage of behavioral health (BH) and primary care (PC) providers who agree the standards of behavioral health care are clear.

Coordination and Support

Seventy six percent (76%) of OIF 05-07 BH providers reported coordinating their BH activities with PC providers and 57% with UMT members in their area of operations. These percentages are similar to OIF 04-06 when (77%) of providers reported they coordinate their BH activities with PC providers and 68% with UMT members. PC providers rated their coordination and support of behavioral services similar to OIF 04-06 ratings. Fifty-eight percent (58%) of PC providers reported they coordinate their BH activities with BH personnel compared to 51% in OIF 04-06. Likewise, forty percent (40%) of PC providers reported they coordinate their activities with UMT members compared to 51% in OIF 04-06.,Eighty-two (82%) of PC providers reported that BH personnel provide information about where to refer service members with mental health problems (74% in OIF 04-06), and 77% indicated that BH staff provide information about the mental health services provided to service members (70% in OIF 04-06).

Resources from Command

A higher percent of BH providers in OIF 05-07 reported that their higher headquarters provided them with the resources needed to do their mission, 53% compared to 37% in OIF 04-06 (X^2 (229) = 4.60 p< .05) (see Figure 25). In contrast, 72% of UMT staff reported that their command provided them with the appropriate resources to conduct UMT activities, compared to 81% in OIF 04-06; this difference, however, is not significant.

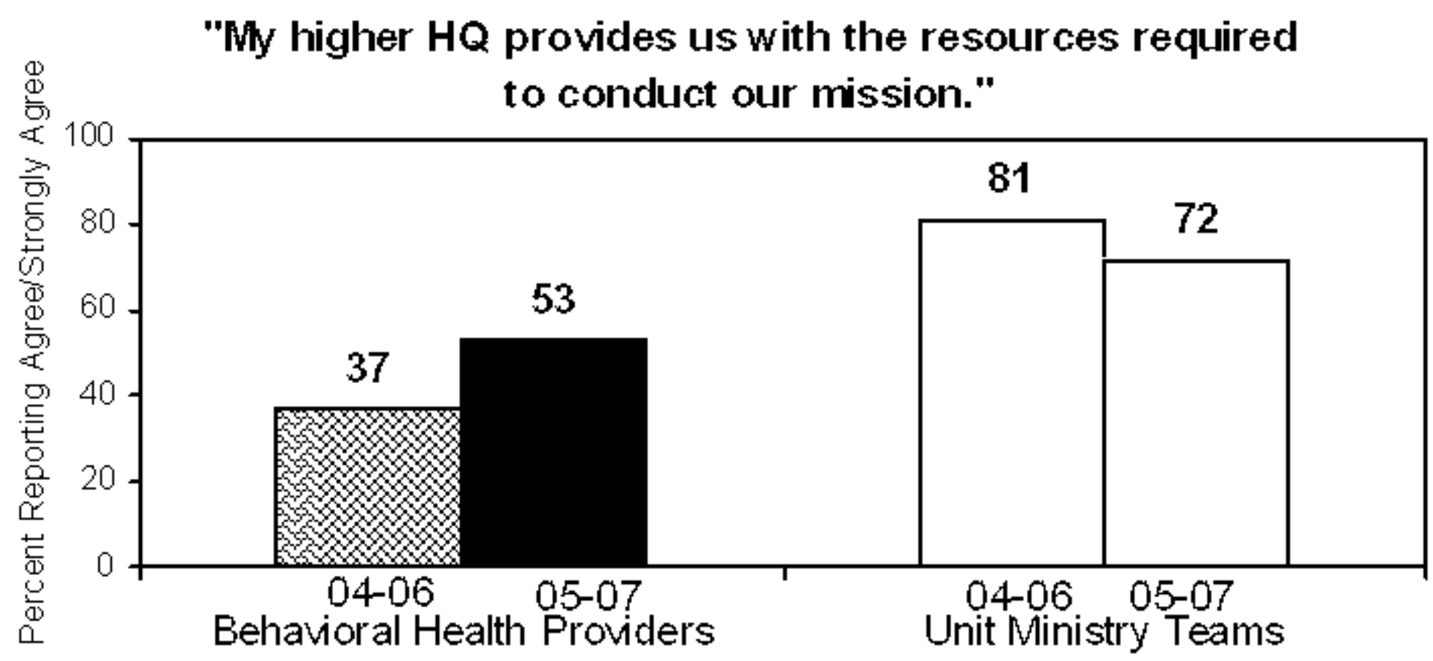


Figure 25. Percent of Behavioral Health providers and Unit Ministry team members reporting receiving support from their command.

Behavioral Health Outreach Work

The frequency of conducting behavioral health work is shown in Figure 26. Fifty percent (50%) of the BH providers indicated they conducted outreach services to service members "several times a week" compared to 58% in OIF 04-06. The BH providers

stated that they consulted with unit leaders "several times a week or more" (41% compared to 57% in OIF 04-06). Forty-two percent (42%) of BH providers reported that they conducted psychological debriefings at least "once a month" compared to 54% in OIF 04-06 (X^2 (224) = 4.44 p< .05). A lower percentage of OIF 05-07 BH (35% vs. 54% in OIF 04-06) providers conducted systematic unit needs assessment at least once every 2-3 months (X^2 (224) = 8.74 p< .01).

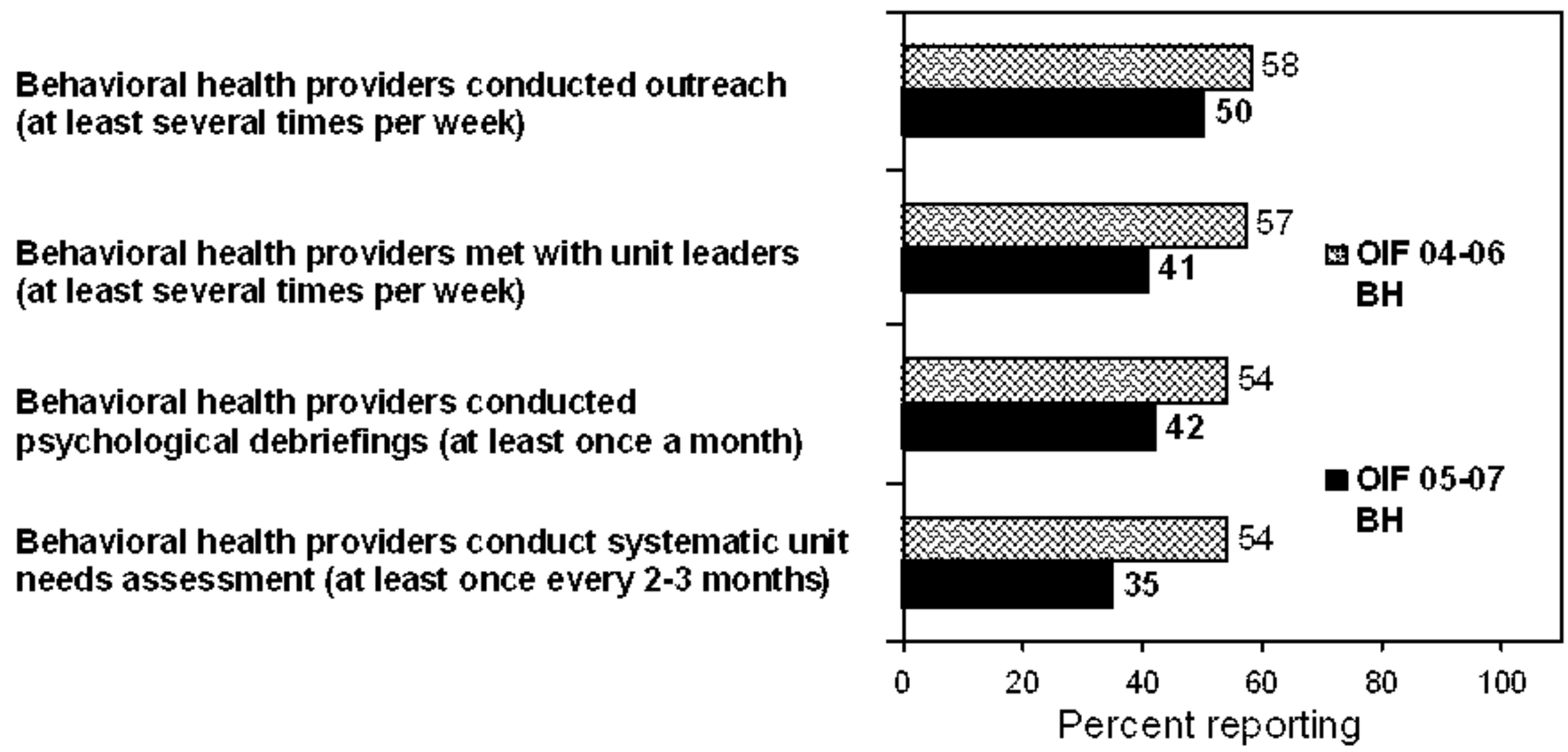


Figure 26. Mental health services provided by behavioral health (BH) care providers.

With regard to PC providers conducting BH care, 43% of PC providers indicated that they referred service members with mental health problems to BH providers at least once a month compared to 48% in OIF 04-06. Twenty-five (25%) of PC providers reported helping service members with mental health problems at least once a week compared to 19% in OIF 04-06 (see Figure 27).

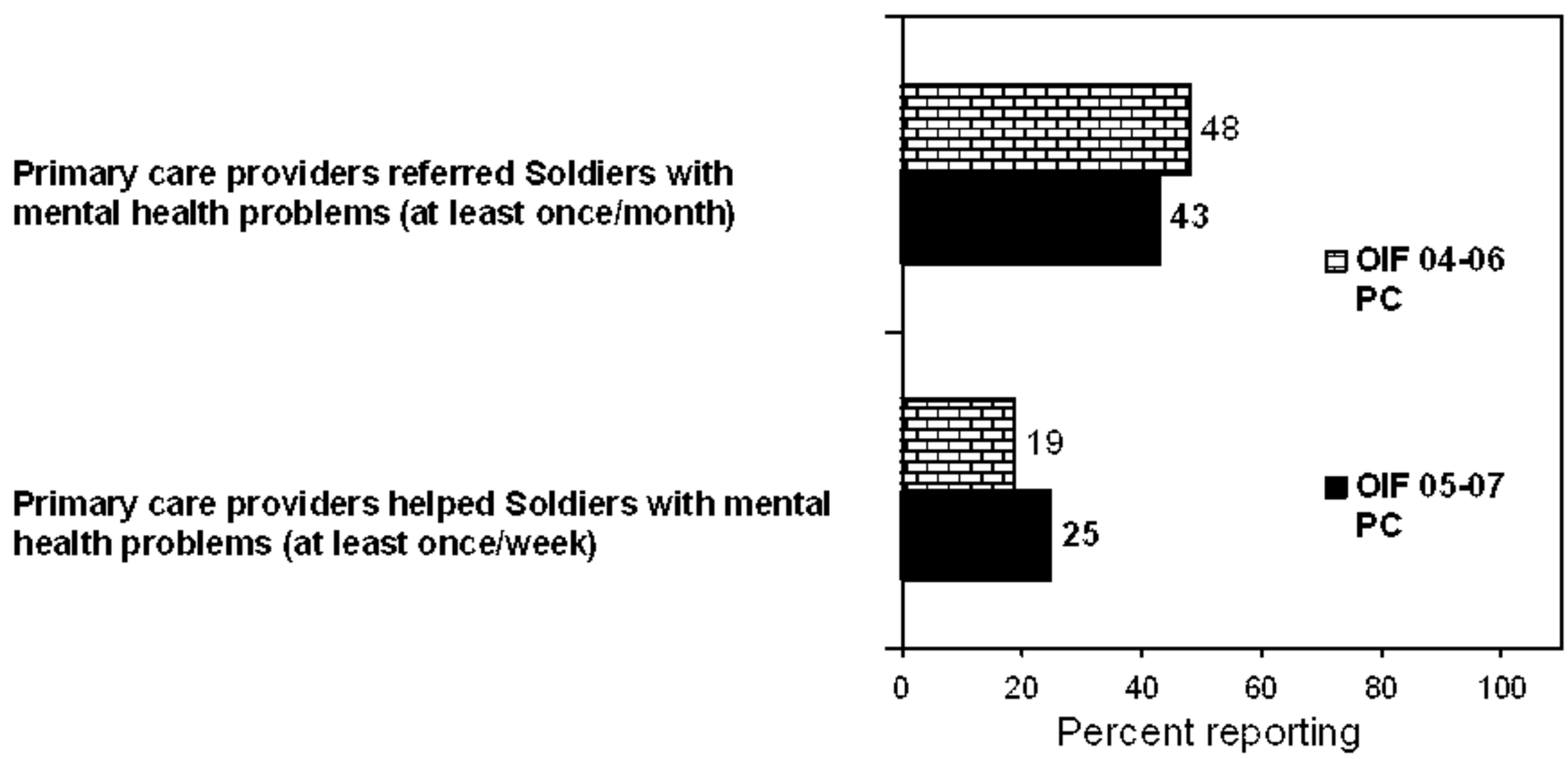


Figure 27. Primary care (PC) role in behavioral health care.

UMT Involvement in Suicide Prevention and Behavioral Healthcare

Figure 28 shows that UMT staff members continue to be the primary personnel conducting suicide prevention training. Ninety-five percent (95%) of UMT members conducted suicide prevention training "at least once during this deployment" compared to 93% in OIF 04-06. Eighty-one percent (81%) of UMT members reported identifying service members at risk for Battle Fatigue "at least once during this deployment" compared to 83% in OIF 04-06. UMT members played a large role in psychological debriefings with 31% stating they had conducted debriefings "at least once a month", compared to 37% in OIF 04-06. Fifty-three percent (53%) of UMT members consulted with unit leaders "several times a week" compared to 58% in OIF 04-06. Sixty-one percent (61%) of UMT members afforded service members the opportunity to discuss their combat experiences "several times a week," compared to 60% in OIF 04-06.

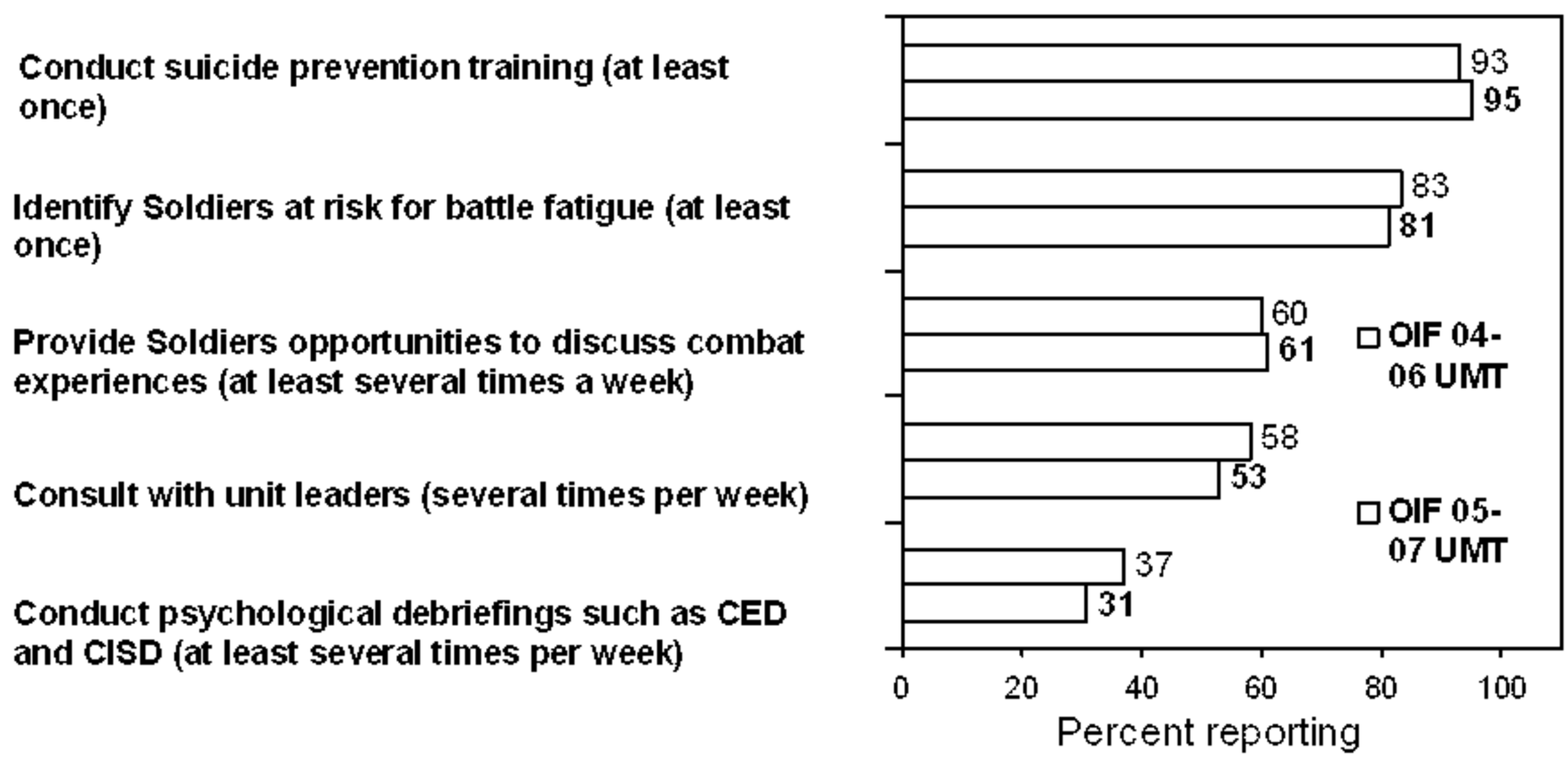


Figure 28. Unit ministry team (UMT) role in behavioral health care.

Confidence in Skills and Training

BH providers remain confident in their ability to treat combat and operational stress reactions among service members. Ninety-eight percent (98%) of the BH providers reported confidence in their skills to help service members adapt to the stressors of combat deployment (93% in OIF 04-06); 93% reported confidence to evaluate and treat suicidal behavior (93% in OIF 04-06); and 98% reported confidence in treating all combat and operational stress reactions (93% in OIF 04-06). Eighty-six percent (86%) reported confidence in their ability to evaluate and treat acute stress disorder or PTSD compared to 85% in OIF 04--06. Sixty-three percent (63%) of the BH providers reported confidence in their ability to evaluate and treat victims of sexual assault which was similar to BH provider reports in OIF 04-06 (65%). Finally, 65% of BH providers reported confidence in being able to evaluate and treat service members with substance abuse or dependence in OIF 05-07 compared to 61% in OIF 04-06. None of these differences were statistically significant.

Seventy-five percent (75%) of PC providers reported having confidence to help service members with mental health issues during the deployment compared to 80% in OIF 04-06. Forty-seven percent (47%) of the PC providers reported confidence in their ability to treat and evaluate service members with substance abuse problems compared to 61% in OIF 04-06 (X^2 (428) = 7.86, $p < .01$). Fifty-nine percent (59%) were confident in their ability to treat combat and operational stress reactions compared to 74% in OIF 04-06 (X^2 (428) = 9.11, $p < .01$). Forty-nine percent (49%) of the PC providers reported having confidence in their ability to evaluate and treat acute stress disorder or PTSD versus 55% OIF 04-06. Fifty-one percent (51%) of PC providers reported having confidence in their ability to evaluate and treat victims of sexual assault compared to 46% in OIF 04-06. Neither of the last two differences is statistically significant

Figure 29 shows BH and PC providers' reports of confidence in their ability to evaluate and treat Soldiers with combat and operational stress reactions across OIF 04-06 and OIF 05-07. As noted previously, the difference between OIF 04-06 and OIF 05-07 for PC providers represents a significant decline.

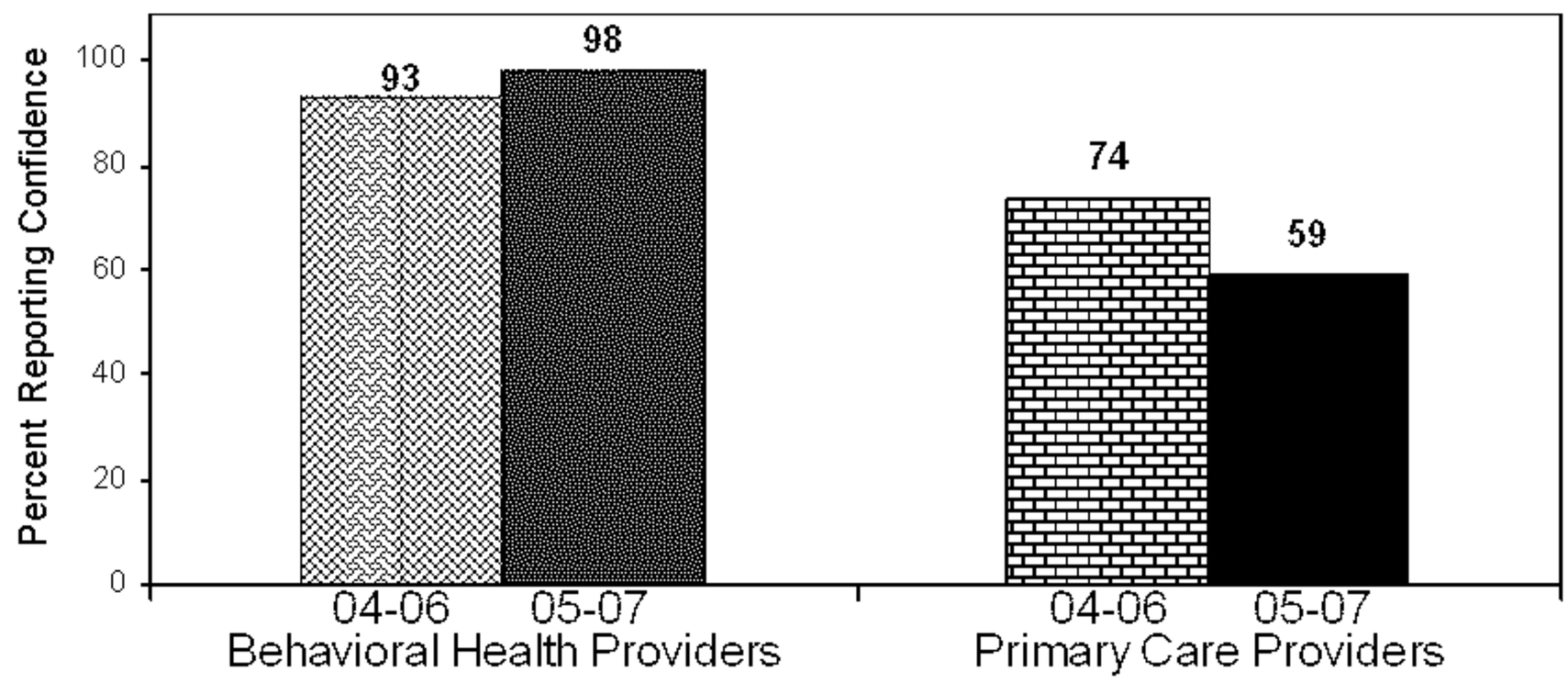


Figure 29. Percent of behavioral health and primary care providers reporting confidence in ability to treat combat & operational stress reactions.

UMT members reported similar levels of confidence in their ability to help service members cope with operational stress. Ninety-two percent (91%) of UMT members reported having confidence in their ability to conduct suicide prevention classes or training compared to 97% in OIF 04-06. Ninety-two percent (92%) of UMT members reported having confidence in their skills to help service members adapt to stress of combat versus 95% in OIF 04-06. Ninety-one percent (91%) of UMT members reported having confidence in their abilities to identify combat and operational stress reactions versus 93% in OIF 04-06.

Provider Well-Being and Burnout

Only 3% of BH providers reported that their ability to perform their job was impaired by the stressors of combat deployment compared to 9% in OIF 04-06. Twenty-one percent (21%) of BH providers reported their burnout level as high or very high. We were unable to compare OIF 05-07 burnout to OIF 04-06 due to it being measured differently.

More PC providers (16%) reported that their ability to perform their job was impaired by the stressors of deployment/combat than in OIF 04-06 (9%) (X^2 (430) = 4.15, $p < .05$). However, a similar percentage (43%) of PC providers reported their burnout level as high or very high compared to OIF 04-06 (45%).

Twelve percent (12%) of the UMT members reported that the ability to do their job had been impaired by the stressors of combat deployment as compared to 5% in OIF 04-06. Twenty-five percent (25%) of UMT members reported their burnout level as high or very high compared to 27% in OIF 04-06. Neither of these differences is statistically significant.

Systematic Unit Needs Assessment

BH providers reported using a variety of methods for assessing the BH needs of service members. Figure 30 presents a number of methods BH providers used in assessing the needs of service members and units. There were significant differences between OIF 05-07 and OIF 04-06 in whether BH providers talked informally to service members (X^2 (225) = 9.03, p < .01); talked with unit commanders (X^2 (223) = 4.34, p < .05); and using validated survey instruments (X^2 (xx) = 8.81, p < .01), with OIF 05-07 being lower.

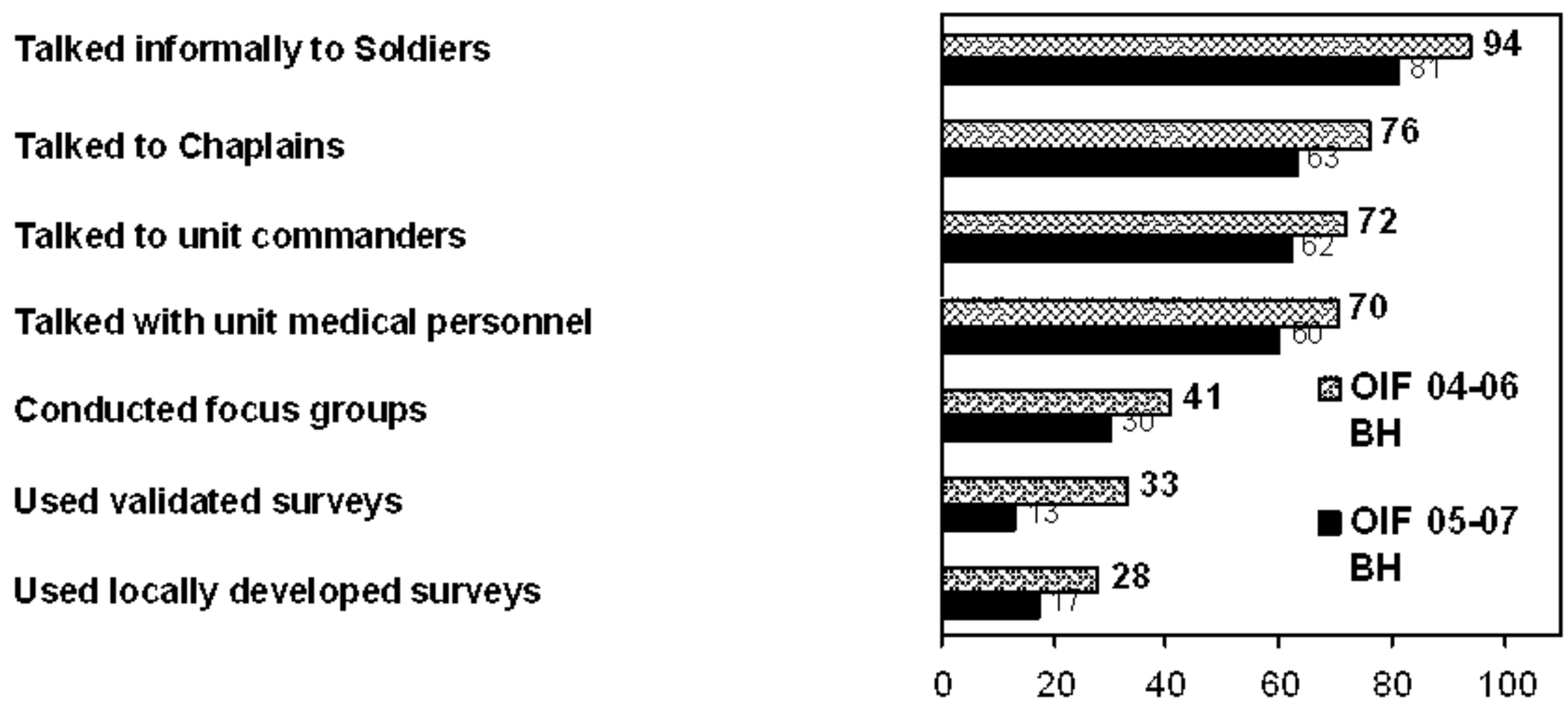


Figure 30. Methods behavioral health care (BH) providers used to assess the behavioral health (BH) needs of Soldiers.

Provider Perception of Barriers to and Stigma concerning BH Care

Provider survey results show a lower percentage of BH providers report that commanders welcome back service members who have received BH services compared to OIF 04-06. Figure 31 shows provider perceptions of the degree to which commanders welcome back service members who receive behavioral healthcare. The difference between 74% reported by OIF 04-06 providers and 58% reported by OIF 05-07 BH providers was statistically significant (X^2 (225) = 9.72, p< .01). A significantly higher number (25%) of OIF 05-07 BH providers report that there is inadequate communication between BH personnel and supported units compared to OIF 04-06 (14%) (X^2 (222) = 4.14, p< .05). In addition, only 44% of BH providers (74% for OIF 04-06) report that commanders respect patient confidentiality when it comes to mental health. During an outbrief of MHAT IV survey findings, a command sergeant major

commented that leaders can not help Soldiers if they do not know what mental health issues their Soldiers have or if they are even seeing a BH provider for a mental health problem. He further commented that "you can't ask us to treat mental health like any other medical problem if you don't tell us what their problem is when one of our Soldiers goes to mental health. I can call the doc when my Soldier is shot and find out how he's dong, how severe the wound is and when he can come back to work. Mental health won't even tell me when one of my guys goes to see them." Clearly, in-theatre policies need to be established identifying what type of mental health information should be routinely shared with unit leaders in order to balance confidentiality with operational needs. When Soldiers/Marines see mental health professionals in theatre, then leaders need to receive a mental health profile similar in detail to a medical profile detailing the extent of the mental health injury, prognosis, and any restrictions/limitations on what they can and cannot do.

There was a significantly lower number (28%) of PC providers in OIF 05-07 who reported that commanders welcome back service members who receive behavioral healthcare compared to OIF 04-06 (38%) (X^2 (430) = 4.87, p<. 05). The difference between 57% and 43% reported by UMT members is not significant.

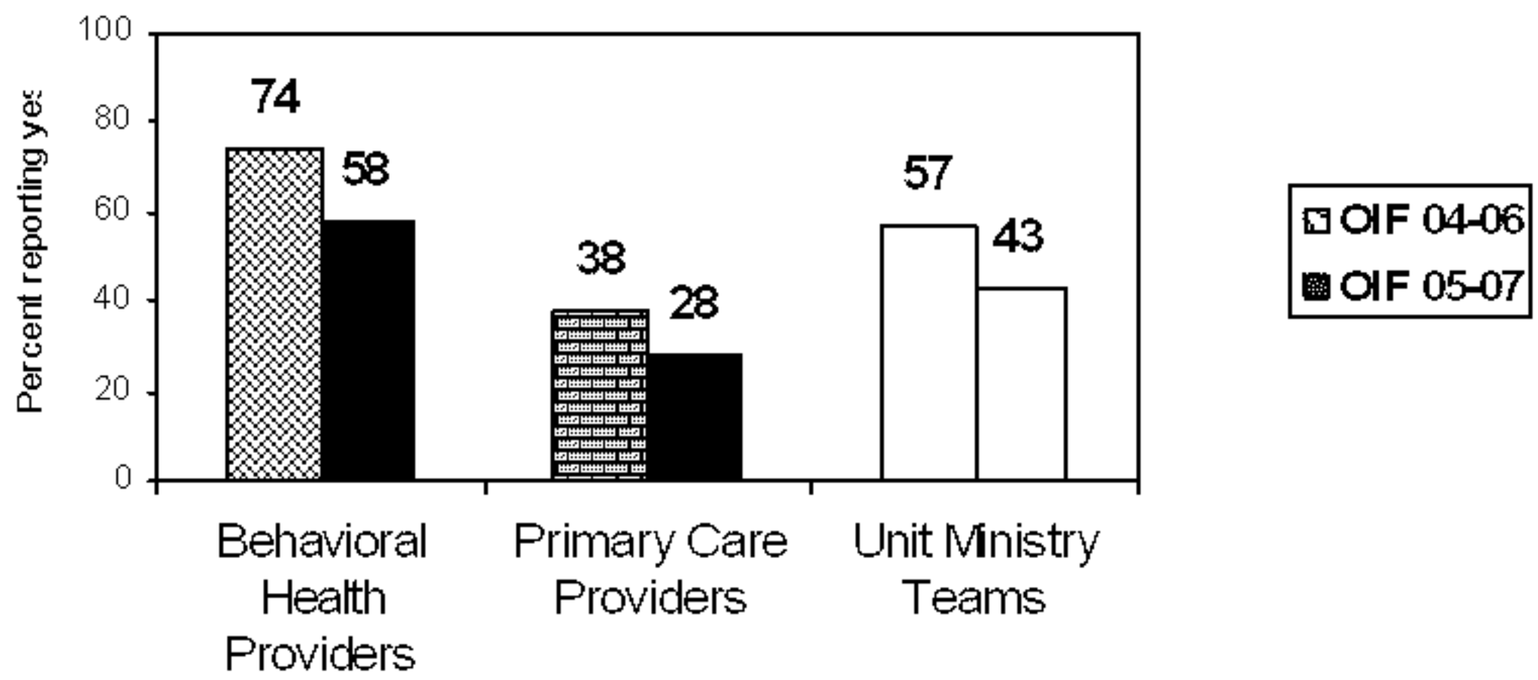


Figure 31. Percent of behavioral health and primary care providers and unit ministry teams that report Commander welcome back Soldiers who have received behavioral health care services.

Ethics

For the first time, battlefield ethical behavior and training in Soldiers/Marines was assessed. In addition, we asked behavioral health (BH) care providers and unit ministry team (UMT) members who they thought was the most appropriate teacher of ethics on the battlefield. Figure 32 shows that BH providers think that NCO and officer leaders in the unit are the most appropriate teachers of battlefield ethics. Chaplains overwhelmingly think that they are the most appropriate teachers of battlefield ethics.

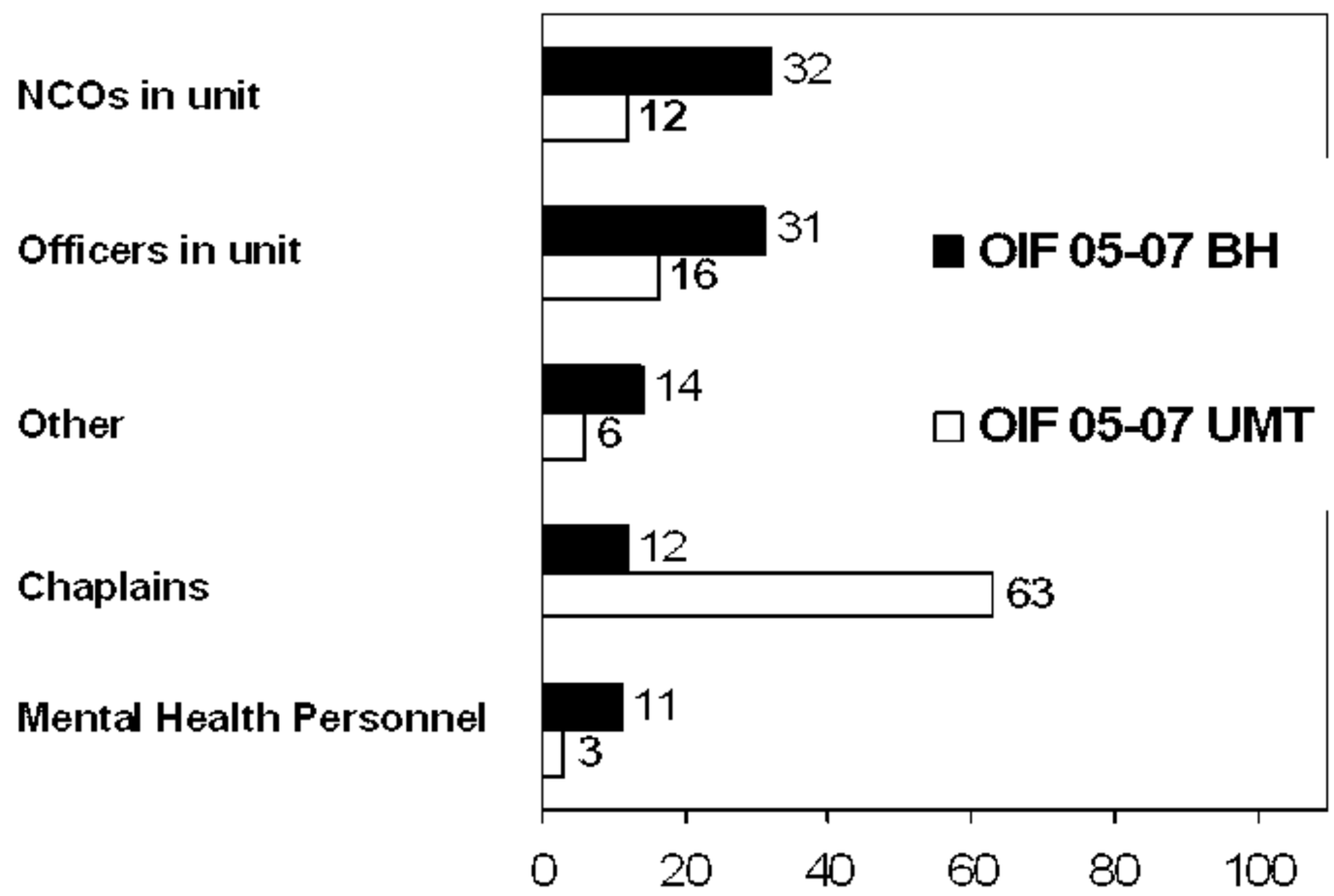


Figure 32. Percent of behavioral health (BH) providers and unit ministry team (UMT) reporting who was the most appropriate instructor of battlefield ethics.

We also asked BH and UMT personnel who they thought should participate in battlefield ethics (see Figure 33). The majority of personnel in both groups supported NCOs and officers in the unit participating in ethics training, with both BH and UMT personnel reporting similar rates for mental health personnel participating in ethics training. However, a much higher percent of Chaplains (88%) endorsed fellow Chaplains being participants in battlefield ethics training than did BH personnel (48%) (X^2 (196) = 31.98, p<. 001).

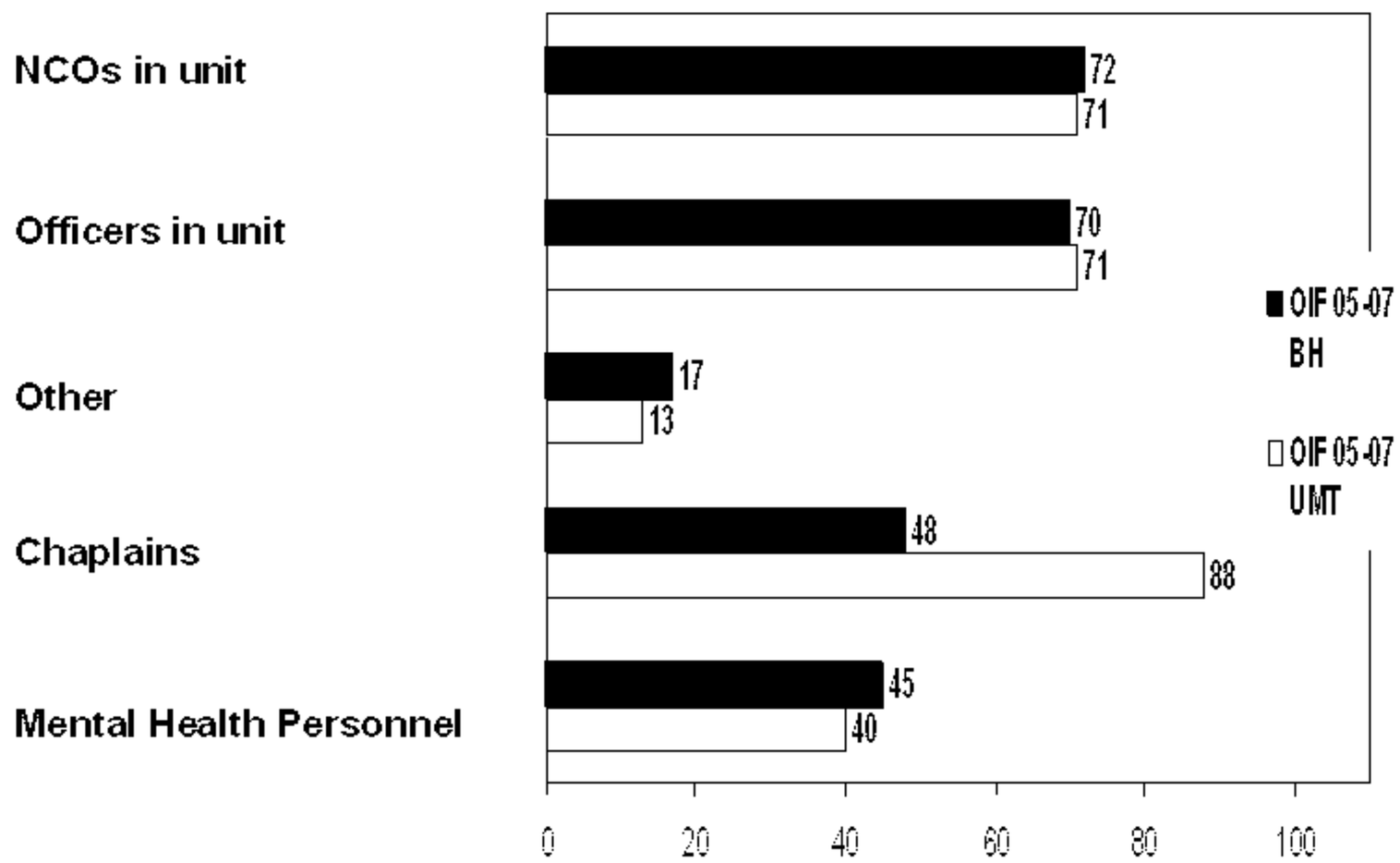


Figure 33. Percent of behavioral health (BH) providers and unit ministry team (UMT) reporting who should participate in Battlefield Ethics Training.

Psychiatric Medications

Twelve percent (12%) of Soldiers and 5% of Marines reported taking medication for a mental health, combat stress, or sleep problem during the deployment. Most medications were for sleep problems, depression, or acute stress (PTSD). Psychiatrists and psychiatric nurse practitioners are the only behavioral health (BH) care providers who may prescribe medications in Iraq. In our sample, we did not have any nurse practitioners so we could only ask the psychiatrists about psychiatric medications in theatre. Four of nine reported on the survey that the procedures for ordering and replenishing psychiatric medications in the theatre/area of operations are clear compared to three of five in OIF 04-06. Seven of eight (1 did not respond) stated that there is generally adequate availability of psychiatric medications compared to all five in OIF 04-06. There is a similar pattern for availability of psychiatric medications at the different levels of medical care. Four of six said there is adequate availability at level 1 Battalion Aid Stations compared to all five in OIF 04-06; five of six at level II Forward support medical companies (three of five in OIF 04-06); seven of eight at level III Combat Support Hospitals (OIF 04-06 was five of five). All nine psychiatrists reported that they had never practiced outside the scope of their privileges.

A Psychotropic Standing Operating Procedure (SOP) was published by the Multi National Corps – Iraq (MNC-I) behavioral health consultant establishing uniform guidelines for the prescription of psychotropic medications in the Iraq Theatre of Operations. It contains several appendices: 1) responsibilities and procedures for

prescribing, 2) information for prescribers, 3) an information paper for commanders giving guidelines on how to approach mental health while respecting Soldiers' right to confidentiality, 4) detailed medication information, and 5) frequently asked questions.

The following drugs were reported as being needed but not available (or) during this deployment: sleep aids – Lunesta, Ambien, Sonata, and Strattera; anti-depressants – Zyban, Wellbutrin, Paxil, Zoloft, and Selective Serotonin Reuptake Inhibitors (SSRIs) that would work quicker; atypical antipsychotics – Seroquil; ADHD treatment – Adderall; alcohol/drug treatment – Naltrexone and antabuse; and smoking cessation – Nicotine patches.

Combat and Operational Stress Control (COSC) Training

A common theme during most focus groups was that providers, particularly occupational therapists and mental health specialists felt they were not prepared for combat and operational stress control (COSC) work. This was a major issue for reserve component providers who work in an unrelated field in their civilian positions. For example, the occupational therapist who works in a civilian hospital hand clinic and the mental health specialist who is a civilian mechanic were unprepared for the functional areas and skills required as a member of a combat stress control unit. Some of these providers reported searching the internet when they arrived in Iraq in order to acquaint or re-familiarize themselves with mental health disorders and treatment modalities.

Less than 5% of all Combat Stress Control (CSC) and BH personnel reported they had attended the COSC course at the Army Medical Department Center & School (AMEDD C&S). Many felt this should be a requirement before deploying. Most providers received the training conducted by the Combat Operational Stress Control Mobile Training Teams (COSC MTT). All reported this training was valuable but many reported a need and/or desire for more COSC training.

A few providers raised the issue of who is the primary provider when CSC units are located on the same FOBs with brigade mental health assets. COSC doctrine currently states that all COSC and BH personnel are required to perform all areas of COSC, including BH treatment. This may cause "territorial" issues when CSC units allow brigade Soldiers to seek care in their clinics. Some CSCs and brigade BH personnel have been able to work together by sharing information and by BH personnel understanding that CSC units cannot turn away service members in need. Another possible solution offered by one CSC provider was to have COSC doctrine specify that brigade BH and CSH personnel have BH treatment as their primary mission and CSC teams focus on prevention and outreach.

During behavioral health (BH) interviews and focus groups, we asked providers "What additional items would you like to have to enable you to do your job better?" The BH survey also had a question that asked which equipment/supplies would have improved the BH team's ability to complete their BH mission. Responses focused on general

equipment such as more or improved computers, printers, copiers, projectors (Proximas), phones, office space, and office supplies. Combat and Operational Control (CSC) units reported that the MC4 system was not adequately distributed or trained. In addition, providers desired psychology manuals and books as well as up-to-date psychological testing equipment and supplies. Many reported they paid for psychology books and equipment out of their own pockets. Finally, many providers reported lacking transportation and desiring their own vehicle in order to be able to reach units they support.

Command Inspection Program

During focus groups, some BH providers reported or demonstrated a lack of knowledge about current COSC doctrine; including not knowing that the new COSC manual was published. In addition, only 41% of BH providers reported that the policy on transfer of BH records in the theatre/area of operations was clear. To ensure that units have all relevant BH references on hand, are familiar with those references, and are adhering to the guidelines in those references, the BH consultant developed a command inspection program (see Appendix M). This program provides tasks, conditions and standards for mental health, and combat and operational stress control interventions & activities in the theatre of operations. The stated purpose of the program is "to ensure CSC units have established and are maintaining a combat and operational stress control program; MH personnel in non-CSC units are providing COSC interventions and activities as applicable; all MH personnel are performing MH activities that meet standards of care." The inspection assesses whether BH personnel are properly documenting BH care, using COSC-WARS, supervising providers who require supervision, and conducting monthly chart reviews, outreach, current suicide prevention training, and unit needs assessment.

During OIF 05-07, the Medical Brigade used the command inspection form to conduct "command assistance visits". Information derived from these visits was used to educate BH units on ways to improve their delivery of BH care but was also briefed up the chain of command. Is it important for future BH consultants to clearly state whether they are conducting command assistance or command inspections. If only doing command assistance visits, findings should not be reported up the chain of command.

Summary of Findings

The behavioral health care system in Iraq is robust, with at least one behavioral health person per 700 military personnel. (b)(2)-2 (b)(2)-2 Combat and Operational Stress Control (COSC) training remains a key concern, with many providers reporting not being prepared prior to deployment. Behavioral health personnel did not use the recently developed unit mental health needs assessment to determine unit or Soldier/Marine behavioral health needs, instead they relied on a variety of unsystematic and random approaches, leaving many Soldiers and Marines without support. Mental health documentation continues to be problematic in Iraq, with a majority of providers interviewed reporting to be unsure what mental health information needs to be

documented, and what forms should be used. There appeared to be very little oversight and support of how COSC doctrine was being implemented, especially at the brigade mental health level. Operational leaders expressed extreme dissatisfaction with behavioral health personnel in the amount of information that is shared regarding the mental health of their Soldiers.

Recommendations: Behavioral Health Care

1. Establish a scope of practice policy for all CSC personnel and monitor for compliance, delineating the levels of prevention, treatment and intervention activities for each specialty. ***(Lead: AMEDD C&S/Naval Medical Education and Training Command)***

2. Ensure at least one behavioral health (BH) person (officer or enlisted) per 1,000 service members. (b)(2)-2 (b)(2)-2 ***(Lead: 3rd MEDCOM; MNF-I Surgeon)***

3. Focus behavioral health outreach to units that have been in theatre longer than six months. ***(Lead: 3rd MEDCOM; MNF-I Surgeon)***

4. Develop and execute a behavioral health care outreach plan to ensure all transition team members receive care. Consider dedicating BH assets that provide BH support at the transition team's location. ***(Lead: 3rd MEDCOM; MNF-I Surgeon)***

5. Ensure all behavioral health personnel and chaplains (regardless of service) are proficient in Combat Stress Doctrine by mandating that they complete the AMEDD Combat and Operational Stress Control Course prior to deploying to the OIF theatre. This training should be required for CSC/OSCAR teams and division/brigade personnel. ***(Lead: OTSG & AMEDD/OPNAV 093 & BUMED)***

6. Revise the Unit Mental Health Needs Assessment to provide specific actions for behavioral health personnel to take based on the unit needs assessment to improve the mental health of the unit. (Lead: MRMC)

7. Include training in using the Unit Mental Health Needs Assessment in the revised CSC Course. ***(Lead: AMEDD C&S)***

8. Incorporate COSC-WARS training into the CSC course. ***(Lead: AMEDD C&S)***

9. Develop a user friendly data analyses routine for reporting COSC-WARS findings. ***(Lead: AMEDD C&S)***

10. Immediate: Mandate all CSC and Division/Brigade BH personnel complete COSC-WAR reports. ***(Lead: MNF-I Surgeon)*** **Long-term: Develop a joint theatre-**

wide mental health and suicide surveillance system for Soldiers, Marines, Sailors, and Airman (possibly include DoD civilians). *(DoD)*

11. Establish a central repository for all COSC-WARS data collected. *(Lead: USACHPPM)*

12. Implement an in-theatre BH Chart Review process. *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

13. Conduct periodic in-theatre training seminars (bi-annual) to ensure BH best practices and to identify/discuss solutions to emerging BH issues. Include 91Xs in these training seminars. *(Lead: 3rd MEDCOM)*

14. Establish and maintain a COSC web-site as a means to obtain reference and training material (especially important for 91Xs serving in a deployed environment). *(Lead: AMEDD C&S/Naval Medical Education and Training Command)*

15. Execute a BH Command Inspection Program (see Appendix M). *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

16. Share Soldier/Marine mental health information with commanders in the same manner and detail as information about a wounded Soldier/Marine is shared. Provide a medical profile detailing the extent of the mental health injury, prognosis, and any restrictions/limitations on what the Soldier/Marine can and cannot do. (MEDCOM/OPNAV 093)

17. Target BH support for Soldiers/Marines with relationship concerns following mid-tour leave and prior to re-deploying home. (CSC/Brigade Mental Health)

SUICIDE PREVENTION PROGRAM REVIEW

All the previous MHATs have reviewed the status of the OIF theatre's suicide prevention and surveillance program, including an analysis of completed suicides. The analyses of completed suicides was of particular interest during MHAT I, due to an unanticipated increase in the rate of suicides occurring in OIF I compared to the U.S. Army norm, with two significant "outbreaks" occurring in the months of July and October (see Tables 15 & 16 and Figure 34). The MHAT IV conducted a similar review of MNF-I's prevention and surveillance program and a detailed analysis of completed suicides.

MNF-I Suicide Prevention Committee

The Command Surgeon of MNF-I serves as the chair of the MNF-I Suicide Prevention Committee. The charter of this committee is to (a) review suicide policies and procedures within MNF-I, (b) assess trends in suicides and suicidal behaviors within theatre, and (c) advise Commanders and leaders in the prevention of suicides, to include training and education. This committee was formed in AUG 2006, and represents the first suicide prevention committee established in OIF.

Army Suicide Event Report (ASER)

The Army Suicide Event Report (ASER) is the reporting and tracking mechanism for completed suicides and non-lethal events that result in hospitalization and/or evacuation. The ASER was developed, and initial validation conducted by the U.S. Army Medical Research Unit-Europe, as a means to track in near, real time suicides, and suicidal behaviors of Army personnel within the U.S. Army, Europe (USAREUR) (Dolan, Schroeder, Wright, Thomas, & Ness, 2003). Following the recommendation of the Mental Health Advisory Team (MHAT) I, the U.S. Army Medical Command issued a policy directing that the ASER be used throughout the Iraqi theatre of operations. The Suicide Risk Management & Surveillance Office (SRMSO) located at Fort Lewis, Washington has operational oversight of the ASER, conducts routine data analyses and publishes reports of these findings. The SRMSO also has responsibility for updating changes to the ASER, with the latest update occurring in December 2005.

The SRMSO issued guidance for when an ASER is to be completed (b)(6)-2 personal communication, September 8, 2006). ASERs are to be completed if they meet ALL of the criteria below:

1) The person is in the Army ---active and reserve component

2) The Soldier completed suicide, was hospitalized or evacuated

3) The method used was lethal or believed by the person to be lethal

4) The Soldier's intent was to die

To ensure that all required ASERs within the OIF theatre of operations are completed every month, the MNF-I BH Consultant reads the theatre medical evacuations using the TRANSCOM Regulating and Command and Control Evacuation System (TRAC2ES) and all theatre in-patient reports; the MNF-I BH Consultant then contacts the provider handling the case to ensure the ASER is submitted. According to SRMSO, from 1 JAN 2006 to 31 AUG 2006, there were 60 ASERs submitted for OIF 05-07, 48 of the ASERs were for suicide attempts and 12 were for completed suicides. The SRMSO validates all ASERs submitted for a completed suicide with the Armed Forces Medical Examiner (AFME). Unfortunately, the SRMSO has no mechanism to ensure the accuracy of ASERs submitted for suicide attempts. The MNF-I BH Consultant noted that multiple ASERs are frequently submitted for the same Soldier and that ASERs are often submitted when they don't meet the criteria outlined previously. For example, in a review of the ASERs submitted for OIF 05-07 (from 1 JAN – 30 JUN 2006), the MNF-I BH Consultant was only able to validate 26 of 39 ASERS (67%), with 6 ASERs being duplicates and 7 ASERs failing to meet the criteria for completing an ASER (see previously cited criteria).

As noted earlier, the ASER was initially developed for use in garrison; and although the ASER has been subsequently modified for use in a deployed environment, additional revisions seem necessary. First and foremost, the ASER must include questions that will maximize the implementation of potential interventions in a deployed environment. While the ASER contains general questions about the deployment, questions regarding the relationship of the suicide or suicide attempt to key deployment events/experiences are missing. For example, the ASER contains no questions regarding whether the Soldier recently returned from mid-tour leave. Currently, all Soldiers leaving for mid-tour leave must receive a chaplain brief. If it could be demonstrated that suicides or suicide attempts are more likely to occur following mid-tour leave, then it might be sensible to require Soldiers to receive suicide prevention training upon returning from mid-tour leave.

The MNF-I is a multi-service headquarters and therefore the MNF-I Surgeon requires a suicide surveillance system capable of monitoring suicides and suicide behaviors across all services (Army, Navy, Marines, Air Force, and Coast Guard). The ASER is an Army system, and therefore ASERs are currently only being completed for Soldiers. A multi-service suicide surveillance system is urgently needed to facilitate joint interoperability of suicide tracking and reporting.

Suicide Statistics

Since the beginning of OIF there have been 72 confirmed Soldier suicides in Iraq. From 1 JAN to 1 OCT 2006, the Armed Forces Medical Examiner (AFME) confirmed 14 completed Soldier suicides in the OIF area of operations, with one death pending assessment. The majority of these deaths involved single, white, male, junior enlisted Soldiers, with the cause of death for all Soldiers being a self-inflicted gunshot wound (see Table 15 & 16). This profile of 2006 OIF Soldier suicides is consistent with

previous OIF Soldier suicide profiles and with the 2005 Army suicide profile. When all OIF suicides (2003-2006) are considered, there does appear to be more OIF suicide deaths resulting from gunshot wounds than the 2005 Army suicide profile (97% vs. 77%), as well as Soldiers being younger (83% vs. 69%) and less likely to be married (47% vs. 26%). There were also two confirmed 2006 OIF Marine suicides, which matches the Army suicide demographic and method profile. (see Table 17).

Table 15. Summary of Demographics of Confirmed OIF 2003, OIF 2004, OIF 2005, OIF 2006 (thru 31 AUG 06) and Army 2005 Suicides					
	2005 Army Suicides	2006 Army OIF Suicides	2005 Army OIF Suicides	2004 Army OIF Suicides	2003 Army OIF Suicides
Suicide by firearm/gunshot	77%	100%	95%	100%	96%
Male	96%	86%	89%	100%	92%
Age 30 or younger	69%	93%	68%	89%	79%
E-4 or below	61%	86%	63%	78%	71%
Married	47%	21%	32%	11%	38%
Minority (non-white)	21%	7%	26%	22%	42%

Table 16. Profile of Confirmed OIF 2006 Soldier Suicides
(As of 1 OCT 2006)

Date of Suicide	Age	Rank	MOS	Comp	Gender	Race/Ethnicity	Marital	Method
(b)(6)								

N = 14

Table 17. Profile of Confirmed OIF 2006 Marine Suicides.
(As of 1 OCT 2006)

Date of Suicide	Age	Rank	MOS	Comp	Gender	Race/Ethnicity	Marital	Method
(b)(6)								

N = 2

The Soldier suicide rates for OIF from 2003 (MAR) to 2006 (AUG) are shown in Table 18. The Soldier suicide rates in 2003 and 2005 were significantly higher than the U.S. Army ten-year average suicide rate (see Table 19). Analyses using the Poisson distribution for rare events confirmed this impression. For OIF 2003 and OIF 2005, the suicide rates were 18.8 and 19.9 per 100,000 Soldiers/year, respectively, compared to the U.S. Army's ten-year average of 11.6 suicides per 100,000/year. There was no significant difference between the suicide rate for OIF 2004 and the U.S. Army's ten-year average (10.5 vs. 11.6 suicides per 100,000 Soldiers/year).

The current, adjusted suicide rate for OIF 2006 is 16.1 suicides per 100,000 Soldiers for the first eight months of 2006, which is not significantly different than the U.S. Army's 10-year average suicide rate. However, the adjusted annualized suicide rate for OIF 2006 is 16.3 suicides per 100,000 Soldiers/year, which is marginally significant (Poisson, $p < .055$). Thus, for three out of the four years, Soldier OIF suicide rates are higher than the U.S. Army's 10-year average suicide rate.

Table 18. OIF Soldier Suicides: 2003-2006.				
SUICIDE UPDATE	**2003**	**2004**	**2005**	**2006**
OIF Confirmed	25	11	22	14
OIF Pending	0	0	0	0
OIF Confirmed Adjusted Rate	18.8*	9.6	19.9*	16.1 (as of 1 OCT 2006)

*Poisson, $p < .01$

Table 19. U.S. Army Suicide Rates: Ten Year Average (1996-2005)	
Calendar Year	**Rate per 100,000**
1996	12.4
1997	10.6
1998	12.0
1999	13.1
2000	12.1
2001	9.1
2002	11.1
2003	12.8
2004	11.0
2005	12.3
Average 1996-2005	**11.6**
U.S. Average	**12.3***

***Crude, conservative U.S. population rate (Eaton et al., 2006)**

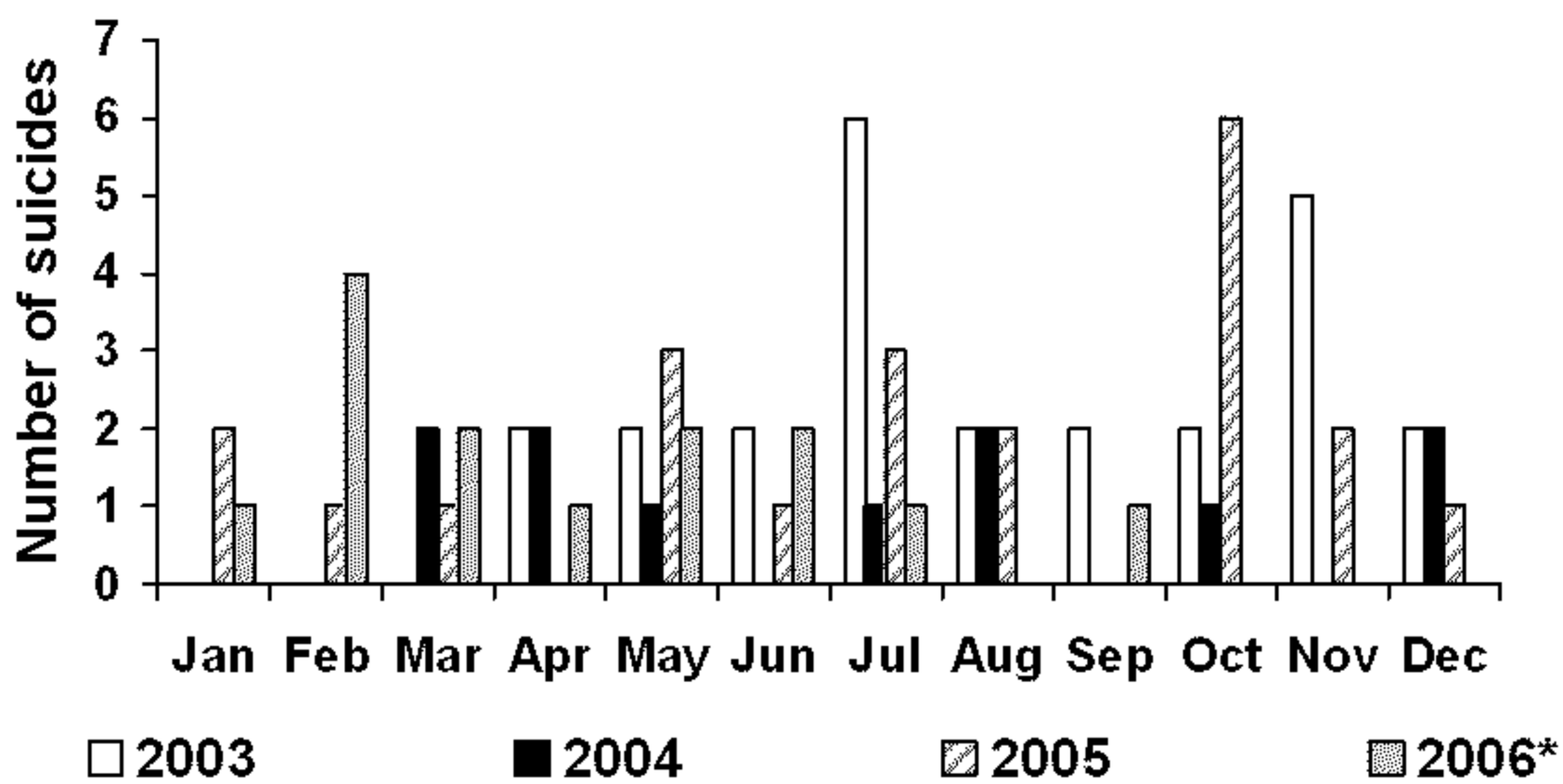
Figure 34 shows the number of Soldier suicides by month from 2003 – 2006. As can readily be seen, there were three months in which the number of suicides "spiked," with 5 suicides in NOV 2003 and 6 suicides each month in July 2003 and October 2005. All three of these months represent a significant spike in suicides (Poisson, $p < .05$).

In fact, for each year (2003, 2005 and 2006) in which there was an increase in the OIF Soldier suicide rate compared to the U.S. Army suicide rate, there was at least one month in which 3 suicides occurred. In 2003 there were two months in which at least 3 suicides occurred; there were 5 suicides in both July and November 2003. In 2005

there were three months in which there were at least 3 suicides; there were 3 suicides in both May and July, and 6 suicides in October The only year in which there was not at a month when three suicides occurred was 2004, the only year in OIF where the OIF suicide rate was not higher than the U.S. Army 10-year average suicide rate.

Further, for those years when the OIF rates did differ from the U.S. Army rate, there does appear to be a six-month "clustering" effect, beginning with the first month in which at least three suicides occurred. For instance, 16 of the 22 suicides that occurred in 2005 happened from May (the first month there were at least three suicides) until October, representing 73% of all suicides for the year. A similar pattern is also seen for 2003 where 18 of 26 suicides, representing 72% of all suicides took place between July and December. It is too early to conduct this analysis for 2006, but it should be noted that February was the first month in which at least three suicides occurred.

No previous MHATs have provided any indicators of Soldier suicide trends. One approach would be to monitor monthly suicides for any month in which three suicides occur as this likely signifies a year in which suicide rates will exceed the 10-year Army average.



*From 1 JAN – 1 OCT 2006

Figure 34. Monthly OIF Soldier Suicides for 2003- 2005.

Summary of findings

Since the beginning of OIF (March 203), there have been 72 confirmed Soldier suicides in Iraq. The MNF-I has an active Suicide Prevention Committee that is chaired by the Command Surgeon. The current suicide training program being used was developed for a garrison Army and lacks relevance for a deployed (combat) environment. The Army Suicide Event Report (ASER) is being widely used in the theatre by both Army and Marine behavioral health care providers, but only for suicides/suicidal gestures by Army personnel. However, there is confusion over when an ASER should be completed, and concern over the relevance of the ASER in a combat environment. Although there are numerous service-specific mental health tracking systems, there is not a single, joint tracking system capable of monitoring suicides, mental health evacuations, and use of mental health/combat stress control services in a combat environment.

Recommendations: Suicide Prevention Program

1. Sustain the MNF-I Suicide Prevention Committee, chaired by the senior theatre medical officer. ***(Lead: MNF-I Surgeon)***

2. Expand the MNF-I Suicide Prevention Committee to include operational commanders and senior NCOs. ***(Lead: MNF-I Surgeon)***

3. Revise and field suicide awareness and prevention training so that it focuses on specific actions Soldiers/Marines (self-aid and buddy aid) and leaders can take in helping fellow unit members. Use real-world examples from a combat environment. ***(Lead Army G-1/BUPERS)***

4. Provide a detailed instruction manual for completing the ASER. ***(Lead: MEDCOM; SRMSO)***

5. Establish an in-theatre review process of all ASERs before submitting to SRMSO to ensure that an ASER is required, and that the ASER is accurate. ***(Lead: 3rd MEDCOM; MNF-I Surgeon)***

6. Update/modify the ASER so that it meets the needs of a deployed force. Ensure that the ASER committee members have practical and recent deployment experience. Ensure all modifications to the ASER facilitate the development of prevention activities in both a garrison and deployed environment. (*Lead:* MEDCOM*; SRMSO*)

7. Establish a joint tracking system for the deployed environment to monitor suicides, mental health evacuations and the use of mental health/CSC services. ***(Lead: DoD)***

8. Establish a quality control process that ensures both internal (e.g., no duplicates) and external (completed suicides in the ASER database match those in the AFME database) validity. *(Lead: MEDCOM; SRMSO)*

STATUS OF MHAT III RECOMMENDATIONS

The MHAT III Report contained 11 general recommendations for improving the delivery of BH care in OIF. The recommendations and the implementation status of each are discussed below.

1. Implement a MNF-I BH Policy. A draft FRAGO outlining a comprehensive behavioral health policy to be incorporated into the MNF-I Command Policies and Procedures has been written and is expected to be published by the end of 2006.

2. Designate a MNF-I BH Consultant to serve as the principal staff officer to the MNF-I Surgeon in conjunction with duties as the MNC-I BH Consultant. Designate Regional Behavioral Health Consultants to address issues throughout the area of operations. The MNF-I Command Surgeon has designated the senior BH officer within the 30th Medical Brigade/3rd MEDCOM as the MNF-I BH Consultant. No regional BH Consultants have been appointed. However, this role has fallen to the senior BH officer in the region, typically the division BH officer.

3. Continue to emphasize the reduction of stigma and barriers to behavioral healthcare for Soldiers and increase emphasis on suicide and deployment stress training. This is a major area of focus of the MNF-I Suicide Prevention Program.

4. Implement the standardized Unit Behavioral Health Needs Assessment Survey (UBHNAS) fielded by MHAT III for use by all combat stress control detachments and BCT organic BH personnel. The Unit Behavioral Health Needs Assessment (UBHNAS) was fielded by MHAT III to a single CSC. To date, no other CSC or BCT organic BH personnel have been trained in the use of the UBHNAS. As a result, the fielding of the UBHNAS is incomplete and its use remains sporadic.

5. Continue to Integrate Behavioral Health staff with Primary Care providers to help reduce stigma and barriers to behavioral healthcare for Soldiers. The location of BH personnel within CSCs and BCTs is in accordance with current DoD and Army polices.

6. Continue research targeted at enhancing Soldier well-being with a particular focus on Soldiers who have deployed multiple times. No progress has been made for this recommendation.

7. Provide theatre suicide surveillance through service-specific suicide event reports to include the Army Suicide Event Report (ASER) for Soldiers. This recommendation has been successfully implemented.

8. Establish policy for the transfer of behavioral health information between providers. No MNF-I policy for the transfer of behavioral health information between providers has been published.

9. Ensure distribution of behavioral health resources consistent with unit requirements. For the most part, the distribution of behavioral health resources is adequate. (b)(2)-2

(b)(2)-2

10. Establish a theatre-wide behavioral health performance improvement program. The MNF-I BH Consultant is currently developing a theatre-wide behavioral health performance improvement program. Several elements of this program have been developed, such as mental health chart reviews and guidelines for prescribing psychotropic medications. However, no evidence was found that risk management reviews were being conducted for provider (officer and enlisted) education and training.

11. Recommend that the proponent for Army Suicide Prevention Training assess the requirements for a suicide prevention program with elements specific to the OIF area of operations. The implementation of this recommendation is in progress. This recommendation is a major area of focus of the MNF-I Suicide Prevention Program chaired by the MNF-I Command Surgeon.

DISCUSSION

The war in Iraq is often described as "a war without fronts," implying that all deployed military (and civilian) personnel are at equal risk for being injured or killed. Yet, not all Soldiers/Marines deployed to Iraq are at equal risk for screening positive for a mental health problem. Instead, it is those Soldiers who spend a significant amount of their time outside of the basecamp or forward operating base (FOB) that are at the most risk for screening positive for a mental health problem. Thirty percent of Soldiers in the High Combat condition screened positive for a mental health problem compared to 17% for the Medium Combat condition and 11% for the Low Combat condition, with Soldiers from the High Combat spending 56 hours a week outside the basecamp compared to approximately 35 hours a week for Soldiers in the Medium Combat condition and 12 hours for Soldiers in the Low Combat condition. Thus, instead of describing the war in Iraq as "a war without fronts," a more accurate and useful description is that the front in Iraq is any place not on a basecamp or FOB. Stated differently, anytime Soldiers or Marines go outside "the wire" they are at the front.

The finding that a Soldier or Marine is at the front in Iraq anytime he/she leaves the basecamp or FOB has important implications for sustaining their mental health and well-being. Although, it has long been recognized that mental health breakdown occurs after prolonged combat exposure (see Grinker & Spiegel, 1945; Swank & Marchand, 1946), a considerable number of Soldiers and Marines are conducting combat operations everyday of the week, 10-12 hours per day seven days a week for months on end. At no time in our military history have Soldiers or Marines been required to serve on the front line in any war for a period of 6-7 months, let alone year, without a significant break in order to recover from the physical, psychological, and emotional demands that ensue from combat. During World War II, entire units were withdrawn from the line for months at a time in order to rest and refurbish. Even during Vietnam, week-long combat patrols in the field were followed by several days of rest and recuperation at the basecamp.

Yet, in Iraq neither Soldiers nor Marines experiencing high levels of combat receive significant in-theatre periods of recovery. Clearly, the two week mid-tour leave is insufficient to restore the Soldier's psychological and emotional well-being as evidenced by the fact that the mental health status of Soldiers, who received mid-tour leave is no different than Marines who did not. Furthermore, only about 5% of Soldiers received in-theatre R&R. Arguing that the intensity of the combat operations in Iraq is not comparable to those of previous wars such as World War II and Vietnam and therefore recovery periods are unnecessary demonstrates a lack of appreciation of what constitutes combat in general, and ignorance as to the level of combat Soldiers and Marines are experiencing in Iraq. Being in mortal danger for hours on end, every day of the week for months at a time is at best physically exhausting and mentally draining (see Campbell, 2006). Seeing first-hand a unit member being seriously injured or killed and realizing that it could have easily been you reveal a vulnerability few other experiences elicit. Understanding these aspects of what combat is like in Iraq, one can

then begin to see that there is little distinction between the impact that combat has on the mental health of Soldiers and Marines in Iraq and that of other wars the U.S. has fought.

What this means is that Soldiers and Marines experiencing high levels of combat in Iraq need periods to recover, just like in every other war. Concretely, Soldiers and Marines experiencing high levels of combat should receive one month of in-theatre recovery for every 3 months of combat duty. For Marines, who deploy for seven months to Iraq, this would mean a one month in-theatre recovery period. For Soldiers, who deploy for 12 months, this would mean two to three one-month in-theatre recovery periods. Ideally, these in-theatre recovery periods would occur at the company or battalion level. It needs to be kept in mind that we are only recommending these in-theatre recovery periods for those Soldiers and Marines experiencing high levels of combat. For Soldiers and Marines experiencing medium levels of combat, shorter recover periods of in-theatre recovery are possible. For Soldiers and Marines experiencing low levels of combat, no in-theatre recovery seems necessary.

We know from findings from the Walter Reed Army Institute of Research (WRAIR) Land Combat Study that the mental health status of Soldiers has not "re-set" after returning from combat duty in Iraq before they are deployed again to Iraq (Castro & Hoge, 2005). Twenty-one (21%) of OIF 05-07 Soldiers deploying to Iraq for a second time screened positive for a mental health problem (anxiety, depression or PTSD) compared to 9% of Soldiers from the same BCT that were deploying for the first time. To be sure, there were important demographic differences between second-time and first-time deployers. The second-time deployers were older, more senior ranking, more educated, and more likely to be married compared to first-time deployers; factors generally found to be protective or restorative of one's mental health, making the observed difference in the mental health rate between first- and second-time deployers even more disturbing.

The findings from this MHAT and MHAT III showed significant differences in mental health status between multiple deployers (primarily second-time deployers) and first-time deployers. Specifically, this MHAT found that 27% of multiple deployers screened positive for any mental health problem compared to 17% for first-time deployers. In a cross-sectional comparison between the findings from MHAT IV and the findings from the WRAIR Land Combat Study, it can be seen that the percentage of Soldiers screening positive for a mental health problem increased for both first-time deployers and multiple deployers. For first-time deployers there was an 8% increase, from 9% to 17%; for multiple deployers there was a 6% increase, from 21% to 27%. That the increase in the percentage of multiple deployers that screened positive for a mental health problem is similar to the increase in first-time deployers (6% versus 9%) suggests that previous deployment experience per se does not "inoculate" Soldiers against further increases in mental health issues. Thus, training focused solely on "exposure" to the stressors of combat is unlikely to be beneficial in protecting Soldiers or Marines. Instead, training must focus on the development of Soldier and Marine mental health resiliency skills, akin to the Battlemind Training program.

Findings from the WRAIR Land Combat Study indicate that deployment length is related to mental health status. When Soldiers were assessed three months post-deployment, those Soldiers deployed to OIF I for 8 months were less likely to screen positive for depression and PTSD compared to Soldiers deployed to OIF for 12 months. This MHAT also assessed the impact of deployment length on the mental health status of the deployed force, and found that Soldiers deployed for 6 months or less were less likely to screen positive for depression, anxiety and acute stress (PTSD) compared to Soldiers deployed longer than 6 months (see Figure 8). Together, these findings indicate that based solely on a mental health perspective, deployment lengths of six-eight months would be ideal; that is, deployment lengths similar to that adopted by the Marines, the Air Force, and the U.S. Special Forces.

Interestingly, although Marine Regiments deploy for six/seven months, the Marine Expeditionary Force Headquarters deploys for 12 months. This raises an important question as to whether the Army could adopt a similar deployment length strategy whereby maneuver units (battalions and below) deploy for 6 months, with headquarters units deploying anywhere from 12-18 months. Given the dramatically different combat role of maneuver and headquarters units, this strategy might serve to both sustain the mental health and well-being of the force, while at the same time provide greater continuity in military operations at the operational and strategic level. However, before such a strategy is undertaken, a systematic assessment of the mental health and well-being of headquarters personnel at the brigade level and above should be conducted, to include a re-assessment of the leave and R&R program.

Findings from this MHAT clearly show that families are under a great deal of pressure, with 27% of married Soldiers reporting that they are having marital problems, either infidelity being a problem (15%) and/or a divorce or separation being planned (20%). Of the two OPTEMPO measures assessed during this MHAT (deployment length or multiple deployments), only deployment length was significantly related to marital problems, with Soldiers deployed for more than six months reporting more marital problems than Soldiers deployed for six months or less. Not surprisingly, for Marines that typically deploy for six or seven months, no relationship was found between deployment length and marital relationship. Thus, from the perspective of keeping marriages together, these findings also support the concept reducing the deployment length.

Analyses of the mental health and well-being of female Soldiers revealed two main findings. First, we found no evidence that female Soldiers are less able than male Soldiers to cope with the stressors and challenges of serving in combat. Second, we found no evidence that female Soldiers have unique or unmeant mental health needs that differ from those of male Soldiers. These findings are consistent with those of previous MHATs in showing that female Soldiers are no more vulnerable than male Soldiers in how combat can affect their mental health and well-being. In fact, a strong case can be made that female Soldiers are at less risk to the demands of combat than are male Soldiers. Recall that when combat experiences were low, female Soldiers were more likely to screen positive for a mental health problem than male Soldiers;

however, under medium combat experiences, there were no differences between male and female Soldiers, demonstrating that combat has a greater impact on the mental health status of male Soldiers than it does on female Soldiers. When discussing the role of the female Soldier in combat, the focus needs to move away from one of weakness and vulnerability, to one of strength and accomplishment.

Every MHAT has conducted an assessment of OIF suicides. With the exception of MHAT II, all previous MHATs have found an increase in the overall OIF Soldier suicide rates compared to the Army ten-year average suicide rate. Determining the cause of these Soldier OIF suicides, of course, is impossible because of the multidimensional aspect of suicides and the rarity of suicides. The issue of OIF Soldier suicides is further compounded by the fact that many important demographic differences between the OIF Soldier population and the Army population are impossible to control for in analyses; therefore, making straight foreword comparisons unattainable.

Improving the OIF suicide prevention training program so that it has relevance to a combat and deployed environment was recommended by MHAT III, as well as by the present MHAT. Two aspects of this proposal should be kept in mind. First, we are not recommending that additional suicide prevention training be conducted. Instead, we are proposing that the existing suicide prevention training be significantly modified so that it is focused on actions that Soldiers, buddies, and leaders can take in a combat environment when they believe that a fellow unit member might be at risk of harming themselves or others. Second, there is no evidence that suicide prevention training alone will significantly reduce the overall rate of suicides. This does not mean, however, that suicide prevention training is useless; rather, it highlights the need to continuously improve the suicide prevention training effort so that it is more focused and relevant to meet the objectives of the population receiving the training. Utilizing a garrison-based suicide prevention program as is currently being done in OIF fails to meet the needs of a force operating in a combat environment.

This was the first MHAT to explore the role that leaders play in influencing the mental health and well-being of Soldiers and Marines, with the explicit purpose to identity how leader behaviors might be developed in order to sustain and improve the mental health of the deployed force. Keep in mind that we are talking about those junior leader behaviors that are important in a combat zone from the perspective of the subordinates. Not surprisingly, Soldiers who reported that they had good junior NCO leadership reported higher morale and fewer mental health concerns. Good junior officer leadership was also associated with Soldiers and Marines following the Rules of Engagement (ROE).

Clearly if there is a panacea, a silver bullet for sustaining the mental health and well-being of the deployed force, it lies with developing junior leaders that recognize the important role that they play in maintaining and sustaining the morale and mental well-being of their Soldiers. Those leader behaviors that have been shown to be effective for sustaining morale, well-being, and mental health in combat need to be taught at every

level of leader development, beginning with the Warrior Leader Course and the officer basic courses.

The study of Soldier and Marine Battlefield Ethics was undertaken at the request of the Commanding General, MNF-I. As noted previously, to accomplish this task we developed unique survey and focus group interview questions. We focused on four areas of Battlefield Ethics: attitudes, behaviors, reporting, and training. The results are easily summarized. In terms of attitudes, less than half of Soldiers and Marines agreed that non-combatants should be treated with dignity and respect, with well over a third of all Soldiers and Marines believing that torture should be allowed to save the life of a fellow Soldier or Marine or to obtain important intelligence. In terms of behaviors, Soldiers and Marines did report engaging in the mistreatment of Iraqi non-combatants, with 4% and 7% of Soldiers and Marines, respectively reporting that they hit or kicked a non-combatant when it wasn't necessary. Further, 9% and 12% of Soldiers and Marines, respectively, admitted to unnecessarily damaging or destroying Iraqi property when it wasn't necessary. By far, the most common behavior reported by Soldiers and Marines was insulting or cursing at non-combatants, 28% and 30%, respectively. In terms of reporting, less than a half of Soldiers and Marines would report a team member for unethical behavior. In terms of training, although Soldiers and Marines reported receiving adequate battlefield ethics training, over one quarter reported encountering situations in which they didn't know how to respond.

Together, these findings indicate the need for the Army and the Marine Corps to collectively develop scenario-based Battlefield Ethics training that will enable Soldiers and Marines to know what behaviors are permissible and what behaviors are not permissible when interacting with combatants and non-combatants. There should be a single solution/approach for all services when it comes to Battlefield ethics. Marines, for example, shouldn't treat non-combatants one way, while the Army treats them another. It is also essential to establish a clear set of procedures for reporting Battlefield Ethics violations, and then ensure Soldiers and Marines are trained on these procedures. While every Soldier and Marine knows to use the chain-of-command to report violations, there is uncertainty as to what behaviors must be reported, and what behaviors can be handled "off-line" by talking to the Soldier/Marine in question. Further, there is even more uncertainty as to what actions a Soldier or Marine should take if their chain-of-command fails to act or does not take sufficient action. The current MNC-I "Core Warrior Values Training" fails to provide these procedures.

Combat experiences, particularly losing a team member, were related to an increase in ethical violations. Battlemind psychological debriefings conducted after the loss of a team member should include explicit discussions of the tendency towards increased anger and hostility directed at Iraqi non-combatants. Anger and mental health status were also linked to Battlefield Ethics. Soldiers and Marines who had high levels of anger were more than twice as likely to engage in unethical behavior on the battlefield compared to those Soldiers and Marines who had low levels of anger. And Soldiers/Marines with mental health problems were more likely to mistreat non-combatants, even when controlling for anger. As noted above, a practical approach to

addressing these findings is to immediately include battlefield ethics awareness discussions in all mental health counseling and anger management courses. Further, leaders at all levels need to ensure that Soldiers that are having difficulty controlling their anger receive immediate corrective training.

This MHAT was the first to assess the mental health and well-being of Marines. When adjusting for deployment length and combat experiences, the mental health status of Marines and Soldiers were similar. For example, Marines experiencing high levels of combat were just as likely to screen positive for a mental health problem as were Soldiers experiencing high levels of combat, 30% versus 30%. Likewise, the mental health status of Soldiers who had been deployed for less than 6 months was similar to the mental health status of Marines who had been deployed for less than 6 months. These findings are important because they suggest that efforts to sustain or improve the mental health of the deployed force should focus on both Soldiers and Marines. We believe that the recommendations contained in this report are equally applicable to both.

While there are undoubtedly culture differences between the two services, these differences were not found to be of sufficient magnitude to argue for the deployment of independent mental health efforts to ensure that the mental health needs of Soldiers and Marines are met. Instead, the findings suggest a joint effort is preferable, especially as mental health support in the future is likely to be provided by mental health care professionals from military services different than the units being supported. Currently in Iraq, for example, Navy mental health professionals provide support to both Marines and Soldiers, with Air Force mental health professionals providing support to predominately Army units. The key to providing cross-service mental health support is to recognize that there are differences in culture, and not to let those differences become a barrier to service members seeking care.

This means we must train as we fight. Navy, Army, and Air Force mental health personnel must begin immediately training with and supporting military personnel from all the services. For example, Soldiers should not encounter Air Force mental health personnel for the first time on the battlefield. Likewise, mental health support to Marines shouldn't be provided by Army mental health professionals on the battlefield without first familiarizing the Marines with Army mental health, and familiarizing Army mental health professionals with the Marine culture. Such a shift in thinking and behavior will require support and direction from the highest levels within each of the services, our Soldiers, Marines, Sailors and Airmen deserve no less.

CONSOLIDATED RECOMMENDATIONS FROM MHAT IV

Note that some recommendations may appear in more than one phase of the deployment cycle.

Pre-Deployment

1. Mandate all Soldiers and Marines attend small-group PRE-deployment Battlemind Training. (FORSCOM/HQMC)

2. Develop Battlefield ethics training based on the "Soldiers' Rules," using OIF-based scenarios so Soldiers and Marines know exactly what behaviors are acceptable on the battlefield and the exact procedures for reporting violations. (TRADOC/TECOM)

3. Ensure all behavioral health personnel and chaplains (regardless of service) are proficient in Combat Stress Doctrine by mandating that they complete the AMEDD Combat and Operational Stress Control Course prior to deploying to the OIF theatre. This training should be required for CSC/OSCAR teams and division/brigade personnel. *(Lead: OTSG & AMEDD/OPNAV 093 & BUMED)*

4. Revise and field suicide awareness and prevention training so that it focuses on specific actions Soldiers/Marines (self-aid and buddy aid) and leaders can take in helping fellow unit members. Use real-world examples from a combat environment. *(Lead Army G-1/BUPERS)*

Deployment

5. Re-evaluate the in-theatre R&R policy to ensure that Soldiers (and Marines) who work primarily outside the basecamps/FOBs receive in-theatre R&R, to include reducing the actual travel time to and from the R&R site. (MNF-I J-3 & J-1)

6. Develop standardized procedures for conducting Battlemind Psychological Debriefings to replace Critical Event Debriefings and Critical Incident Stress Debriefings following deaths, serious injuries and other significant events. (MNF-I Surgeon & MRMC/OPNAV & NMRC)

7. Develop interventions to reduce the impact of combat and deployment length on the mental health and well-being of Soldiers/Marines. (MNF-I Surgeon & MRMC/OPNAV & NMRC)

8. Standardize basecamp and FOB rules to eliminate those rules that don't pertain to combat readiness, avoiding the establishment of garrison-like standards. (MNF-I CSM)

9. Publish a policy that ensures Soldiers/Marines are able to access mental health care during the duty day. (MNF-I Surgeon)

10. Incorporate battlefield ethics in all behavioral health counseling, especially counseling conducted in a combat theatre. (MEDCOM & OPNAV 093)

11. Include battlefield ethics in all anger management classes, especially training conducted in a combat theatre. (MNF-I Surgeon/MEDCOM & OPNAV 093)

12. Stress adherence to the Soldiers' Rules during After Action Reviews (AARs) following critical events. (MNF-I)

13. Provide far-forward behavioral health care outreach at the location of the Transition Team. (3rd MEDCOM/CSC Teams)

14. Establish a scope of practice policy for all CSC personnel and monitor for compliance, delineating the levels of prevention, treatment and intervention activities for each specialty. *(Lead: AMEDD C&S/Naval Medical Education and Training Command)*

15. Ensure at least one behavioral health (BH) person (officer or enlisted) per 1,000 service members. (b)(2)-2 (b)(2)-2 *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

16. Focus behavioral health outreach to units that have been in theatre longer than six months. *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

17. Develop and execute a behavioral health care outreach plan to ensure all transition team members receive care. Consider dedicating BH assets that provide BH support at the transition team's location. *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

18. Immediate: Mandate all CSC and Division/Brigade BH personnel complete COSC-WAR reports. *(Lead: MNF-I Surgeon)* Long-term: Develop a joint theatre-wide mental health and suicide surveillance system for Soldiers, Marines, Sailors, and Airman (possibly include DoD civilians). *(DoD)*

19. Implement an in-theatre BH Chart Review process. *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

20. Conduct periodic in-theatre training seminars (bi-annual) to ensure BH best practices and to identify/discuss solutions to emerging BH issues. Include 91Xs in these training seminars. *(Lead: 3rd MEDCOM)*

21. Execute a BH Command Inspection Program (see Appendix M). *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

22. Share Soldier/Marine mental health information with commanders in the same manner and detail as information about a wounded Soldier/Marine is shared. Provide a medical profile detailing the extent of the mental health injury, prognosis, and any restrictions/limitations on what the Soldier/Marine can and cannot do. (MEDCOM/OPNAV 093)

23. Target BH support for Soldiers/Marines with relationship concerns following mid-tour leave and prior to re-deploying home. (CSC/Brigade Mental Health)

24. Sustain the MNF-I Suicide Prevention Committee, chaired by the senior theatre medical officer. *(Lead: MNF-I Surgeon)*

25. Expand the MNF-I Suicide Prevention Committee to include operational commanders and senior NCOs. *(Lead: MNF-I Surgeon)*

26. Establish an in-theatre review process of all ASERs before submitting to SRMSO to ensure that an ASER is required, and that the ASER is accurate. *(Lead: 3rd MEDCOM; MNF-I Surgeon)*

27. Establish a joint tracking system for the deployed environment to monitor suicides, mental health evacuations and the use of mental health/CSC services. *(Lead: DoD)*

Post Deployment/Reconstitution

28. Mandate all Soldiers and Marines receive small group POST-deployment Battlemind Training. (FORSCOM/HQMC)

29. Develop interventions to reduce the impact of combat and deployment length on the mental health and well-being of Soldiers/Marines. (MNF-I Surgeon & MRMC/OPNAV & NMRC)

30. Publish a policy that ensures Soldiers/Marines are able to access mental health care during the duty day. (DoD)

31. Share Soldier/Marine mental health information with commanders in the same manner and detail as information about a wounded Soldier/Marine is shared. Provide a medical profile detailing the extent of the mental health injury, prognosis, and any restrictions/limitations on what the Soldier/Marine can and cannot do. (MEDCOM/OPNAV 093)

Sustainment

32. Educate and train junior NCOs and officers in the important role they play in maintaining Soldier/Marine mental health and well-being by including behavioral health

awareness training in ALL junior leader development courses, beginning with the Warrior Leader Course (WLC) and the Officer Basic Course (OBC). (TRADOC/TECOM)

33. Revise the combat experiences scale to include "sniper attacks." (WRAIR/Future MHATs)

34. Extend the interval between deployments to 18-36 months or decrease deployment length to allow additional time for Soldiers to re-set following a one-year combat tour. (HQ DA/HQMC) Assess the optimal time for Soldiers/Marines to "reset" their mental health and well-being. (HQ DA/HQMC & MEDCOM/MRMC)

35. Publish a policy that ensures Soldiers/Marines are able to access mental health care during the duty day. (DoD)

36. Incorporate battlefield ethics in all behavioral health counseling. (MEDCOM & OPNAV 093)

37. Include battlefield ethics in all anger management classes, especially training. (MEDCOM & OPNAV 093)
Due outs from LTG Kiley included: 1) providing specifics on positive / negative leader behaviors and disseminating this information to NCO leadership, 2) reviewing / revamping the AMEDD C&S Combat and Operational Stress Control (COSC) Course curriculum, 3) building real world scenarios and case vignettes from deployed environment into suicide prevention training, 4) establishing plan for expansion of Battlemind training Army-wide, and 5) providing details on the roles that occupational therapists play on COSC teams. 38. Establish a scope of practice policy for all CSC personnel and monitor for compliance, delineating the levels of prevention, treatment and intervention activities for each specialty. *(Lead: AMEDD C&S/Naval Medical Education and Training Command)*

39. Revise the Unit Mental Health Needs Assessment to provide specific actions for behavioral health personnel to take based on the unit needs assessment to improve the mental health of the unit. *(Lead: MRMC)*

40. Include training in using the Unit Mental Health Needs Assessment in the revised CSC Course. *(Lead: AMEDD C&S)*

41. Incorporate COSC-WARS training into the CSC course. *(Lead: AMEDD C&S)*

42. Develop a user friendly data analyses routine for reporting COSC-WARS findings. *(Lead: AMEDD C&S)*

43. Immediate: Mandate all CSC and Division/Brigade BH personnel complete COSC-WAR reports. *(Lead: MNF-I Surgeon)* Long-term: Develop a joint theatre-wide mental health and suicide surveillance system for Soldiers, Marines, Sailors, and Airman (possibly include DoD civilians). *(DoD)*

44. Establish a central repository for all COSC-WARS data collected. *(Lead: USACHPPM)*

45. Establish and maintain a COSC web-site as a means to obtain reference and training material (especially important for 91Xs serving in a deployed environment). *(Lead: AMEDD C&S/Naval Medical Education and Training Command)*

46. Share Soldier/Marine mental health information with commanders in the same manner and detail as information about a wounded Soldier/Marine is shared. Provide a medical profile detailing the extent of the mental health injury, prognosis, and any restrictions/limitations on what the Soldier/Marine can and cannot do. (MEDCOM/OPNAV 093)

47. Provide a detailed instruction manual for completing the ASER. *(Lead: MEDCOM; SRMSO)*

48. Update/modify the ASER so that it meets the needs of a deployed force. Ensure that the ASER committee members have practical and recent deployment experience. Ensure all modifications to the ASER facilitate the development of prevention activities in both a garrison and deployed environment. (*Lead*: AMEDD)

49. Establish a joint tracking system for the deployed environment to monitor suicides, mental health evacuations and the use of mental health/CSC services. *(Lead: DoD)*

50. Establish a quality control process that ensures both internal (e.g., no duplicates) and external (completed suicides in the ASER database match those in the AFME database) validity. *(Lead: MEDCOM; SRMSO)*

REFERENCES

American Psychiatric Association. (2000) *Diagnostic and Statistical Manual of Mental Disorders DSM-IV (Text Revision).*

Blanchard, E. B., Jones-Alexander, J, Buckley, T. C. & Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behavioral Research and Therapy, 8,* 669-673.

Bliese, P.B. (2006). Social climates: Drivers of Soldier well-being and resilience. In A.B. Adler, C.A. Castro, & T.W. Britt (Eds.), *Military life: The psychology of serving in peace and combat: Vol. 2. Operational Stress* (pp. 213-234). Westport, CT: Praeger Security International.

Bliese, P.B. & Castro, C. A. (2003). The solider adaptation model (SAM): Applications to peacekeeping research. In T.W. Britt & Adler, A.B. (Eds.), *The psychology of the peacekeeper*. Westport, CT: Praeger.

Campbell, S. J. (2006). What has befallen me? The psychological aftermath of combat. In T.W. Britt, C.A. Castro, & A.B. Adler (Eds.), *Military life: The psychology of serving in peace and combat: Vol. 1. Military Performacne* (pp. 3-11). Westport, CT: Praeger Security International.

Castro C.A., Hoge C.W. Psychological impact of modern warfare: the WRAIR Land Combat Study (symposium). American Psychological Association Annual Convention. Washington D.C. August 18-21, 2005.

Dolan, C. A., Schroeder, E. D., Wright, K. M., Thomas, J. T., & Ness, J. W. (2003). *USAREUR suicide surveillance project: Data summary and program evaluation.* (USAMRU-E Technical Report). Heidelberg, Germany: U.S. Army Medical Research Unit-Europe.

Eaton, K.M, Messer, S.C., Garvey-Wilson, A.L., & Hoge, C.W. (2006). Strengthening the Validity of Population-Based Suicide Rate Estimates: An Illustration Using U.S. Military and Civilian Data. *Suicide and Life Threatening Behavior*, 182-191

Grinker, R. R. & Spiegel, J. P. (1945). Men under stress. Philadelphia: Blakiston.

Hoge, C.W. (2005) Impact of deployment length and deployment recovery time on the mental health of Soldiers supporting OIF/OEF using data from the Walter Reed Army Institute of Research (WRAIR) Land Combat Study. Silver Spring, MD: Walter Reed Army Institute of Research

Hoge, C. W., Castro, C. A., Messer, S. C., McGurk, D., Cotting, D., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine, 351*, 13-22.

Mental Health Advisory Team II (MHAT-II) Report from Operation Iraqi Freedom II, chartered by The U.S. Army Surgeon General , December 30, 2004, available on www.armymedicine.army.mil.

Mental Health Advisory Team (MHAT-III) Operation Iraq Freedom 04-06, chartered by the Office of the Surgeon General Multinational Forces-Iraq and Office of the Surgeon General United States Army Medical Command, May 29, 2006.

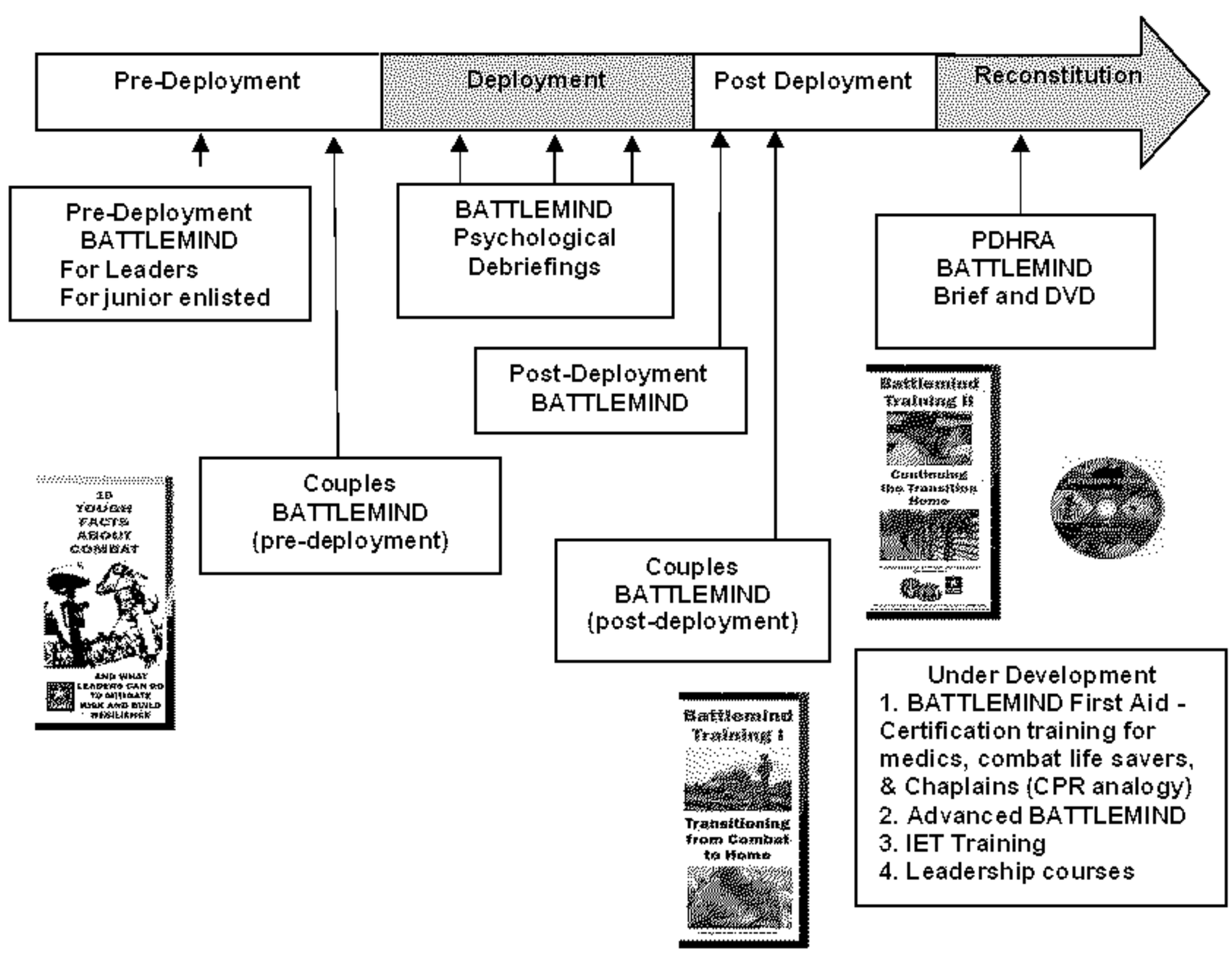
Operation Iraqi Freedom Mental Health Advisory Team (MHAT) report: chartered by U.S. Army Surgeon General and HQDA G-1. December 16, 2003, available on www.armymedicine.army.mil.

Spitzer, R. I., Kroenke, K., & Williams, J. B. (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ primary care study. Primary Care Evaluation of Mental Disorders. Patient Health Questionnaire. *Journal of American Medical Association, 282,* 1737-1734.

Stouffer, S, Suchman, E., Devinney, L., Star, S. & Williams, R. (1949). The American Soldier. Princeton: Princeton.

Swank, R. L. & Marchand, W. E. (1946). Combat neuroses: development of combat exhaustion. *Archives of Neurology and Psychology*, *55*, 236-247.

Thomson, M. H., Adams, B.D. & Sartori, J. A. (2005) *Moral and Ethical Decision Making Literature Review* (DRDC Toronto No. CR-2005-105). Guelph, ON: Department of National Defence

BATTLEMIND TRAINING SYSTEM

Battlemind is a Soldier's inner strength to face fear and adversity in combat with courage. The pre-deployment Battlemind training program is designed to build Soldier resiliency by developing his/her self-confidence and mental toughness. The training focuses on Soldier strengths, identifying specific actions that Soldiers and leaders can engage in to meet the challenges of combat. The pre-deployment training consists of unique modules for Soldiers, leaders, reservists, and families. The post-deployment Battlemind training focuses on transitioning from combat to home. The acronym "BATTLEMIND" identifies ten combat skills that if adapted will facilitate the transition home. The post-deployment Battlemind training consists of two training modules to be conducted at different times post-deployment. The first training module is intended to be given within the first two weeks of returning home. The focus of this initial transition training is on safety, relationships, and normalizing common reactions and symptoms resulting from combat. The second training module is designed to be given at 3-6 months post-deployment. This follow-up post-deployment training is designed so that Soldiers can conduct "Battlemind Checks" of themselves as well as that of their buddies, allowing them to know when to seek help. The training ends by addressing those barriers which prevent Soldiers from seeking help. The Battlemind training is designed to be given in small groups to encourage interaction and discussion, requiring approximately 35-45 min to complete. The Battlemind Training material can be found at www.battlemind.org.