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# **Resilience, Combat Exposure, and Mental Health of Military Personnel Transitioning to Civilian Life**

## **Final Report- Pilot Test Follow-Up Survey**

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## ABSTRACT

Since the beginning of Operations Enduring Freedom and Iraqi Freedom (OEF/OIF), hundreds of thousands of Service members have transitioned from military to civilian life, many of whom have been exposed to deployment stressors that may have lasting psychological costs. The goal of this study was to prospectively examine, in Sailors and Marines readjusting to civilian life, the interrelationships between combat and Service-related variables, a wide range of other risk and protective factors, and subsequent anxiety and depression symptoms. Participants were Sailors and Marines attending mandatory Transition Assistance Program (TAP) workshops while preparing to discharge from the military. All participants completed baseline questionnaires and were subsequently separated from military service and locatable for a follow-up survey at approximately 1 year post-separation. Results showed a drop in the overall prevalence of anxiety and depression for both Sailors and Marines from baseline to follow-up, but also numerous new cases in both categories (between 9% and 31%). The percentage of participants reporting new posttraumatic stress disorder (PTSD) symptoms at the time of follow-up exceeded the percentage reporting symptom reduction between baseline and follow-up. The strongest risk factors for anxiety and depression at time of follow-up were self-reported stressors, baseline anxiety or depression symptoms, and risk-taking behaviors. With the exception of social support, protective factors, including resilience scores, accounted for a relatively minor amount of the variance compared with risk factors. Findings suggest that additional stress management and programs to maximize social support should be implemented for transitioning military personnel.

**Key Words: Resilience; military; combat stress; mental health; PTSD**

## **SECTION 1**

### **INTRODUCTION**

In 2008, RTI International and the Naval Health Research Center (NHRC) completed the baseline pilot survey of the Mental Health Assessment of Transitioning Military Personnel project, a comprehensive examination of stress and mental health indicators in Navy and Marine personnel who were in the process of separating from the military. A paper-and-pencil questionnaire was administered to 3,753 active-duty Navy and Marine Corps personnel in the Transition Assistance Program (TAP) during routine mandatory separation counseling via group administration. The baseline (BL) survey included selected items from the Post-Deployment Health ReAssessment (PDHRA), along with additional questions on risk and protective factors for civilian readjustment and mental health outcomes.

Results from the BL survey showed that past month prevalence rates ranged from 5% for suicidal ideation among Navy TAP attendees to 52.5% for past year substance abuse among Marines. Excluding substance abuse, high rates of any mental health symptoms excluding substance abuse were found among both transitioning Sailors and Marines, with Marine Corps rates significantly higher than those for the Navy (55% and 40%, respectively).

Rates for depression in transitioning Marines were three times as high as the rates noted by Hoge and colleagues (2004; 14.7% vs. 49.2%), and rates for anxiety were twice as high (15.7% vs. 31%). These rates support the concern voiced in several recent reports (e.g., APA, 2007) that many personnel may be first experiencing or admitting to problems upon their discharge from the military and suggest that the transition process itself may be contributing to the development and/or exacerbation of mental health symptoms.

To further explore this issue, RTI and NHRC conducted a longitudinal follow-up (FU) survey, administered an average of twelve months after baseline participants were discharged from active duty, to assess the prevalence of mental health symptoms among Sailors and Marines transitioning out of the Service and to identify predictors of mental health resilience and changes in mental health and resilience over time. This report details the methods and findings of this FU survey.

## SECTION 2 METHODS

### 2.1 Measures

In addition to sociodemographic variables (including gender, age, current marital status, number of dependent children, race/ethnicity, employment status, income, and health care coverage) and a number of combat and Service-related variables, this study also examined a large number of additional potential risk and protective factors for mental health outcomes.

#### 2.1.1 Explanatory Variables

*Social Support.* The Deployment Risk and Resilience Inventory (DRRI) is an inventory of risk and resilience measures associated with possible military deployment stress-related reactions that may have implications for veterans' long-term health (King, King, & Vogt, 2003). One of the DRRI's 14 scales was modified and used to assess social support. The 15-item *Postdeployment Social Support Scale* assesses the extent to which family, friends, coworkers, employers, and community provide emotional sustenance and instrumental assistance. Emotional sustenance refers to the extent to which others provide the individual with understanding, companionship, a sense of belonging, and positive self-regard. Instrumental assistance refers to the extent to which the individual receives tangible aid such as help to accomplish tasks and material assistance or resources. Respondents rated 12 of the 15 items on a scale ranging from 1 (strongly agree) to 5 (strongly disagree). For this study, the question timeframe was modified from "while you were deployed" to "your current relationships." The items were summed and turned into trichotomous categorical variables using the first and third quartile split.

*Health-Related Quality of Life.* The 20-item Medical Outcomes Study (MOS) Short-Form (SF-20) was adapted from longer surveys used successfully in the Health Insurance Experiment. The SF-20 assesses six important health concepts: physical functioning (six items), role functioning (two items), social functioning (one item), mental health (five items), current health perceptions (five items), and pain (one item). Support for the reliability and construct validity of the SF-20 is provided in previously published documents (Stewart et al., 1988; Ware & Sherbourne, 1992). For this study, only the concepts of pain, mental health, and current health perceptions were measured. The MOS Pain Indicator was derived directly from the question that asked the respondents how much bodily pain they had experienced in the past 4 weeks. Only four of the five current health perceptions items were used. Two items were reverse scored; the other two were not. If a respondent was missing two of the four items, the overall score was

missing. This scale was also trichotomized into a categorical variable using the first and third quartiles.

*Life Events.* The 17-item *Postdeployment Stressors Scale* from the DRRI assesses exposure to stressful life events after deployment (King et al., 2003). The Postdeployment Stressors Scale uses “yes” or “no” response options to generally stressful events that are unrelated to deployment (such as vehicular accidents, physical assaults, and death or serious illness of a relative) and events that may be related to efforts at reintegration (especially for National Guard and Reserves), such as job interruption, difficulties in reestablishing family and community roles, legal or financial difficulties, and divorce. For this study, the question’s time frame was modified from “since your last deployment” to “since leaving the military.” In addition, four items were added that assessed stress from problems accessing health care, controlling temper, being fired, getting divorced/being left by significant other, and having a serious illness. The Stressors Index is the sum of responses from the items across two questions and turned into a trichotomous categorical variable using the first and third quartile split.

*Combat and Service* variables included injury or health problems related to military experience, and combat exposure. *Combat exposure* was assessed using 17 items describing potentially traumatic combat experiences (e.g., “I saw dead bodies or human remains”; “I was wounded in combat”). These items were modified from four different measures of combat trauma, including items used previously in research on recent conflicts (Hoge et al., 2004), the DRRI (King et al., 2003), and the 7-item Combat Exposure Scale (CES; Keane et al., 1989). They were adapted so that participants could answer all of them using the same response format. Additionally, minor modifications were made in consultation with Marine Corps personnel so that the questions would reflect conditions common in current deployment contexts. For this study, an item was added regarding questioning of detainees or prisoners. Respondents rated the frequency with which they had experienced each event on a scale ranging from 1 (*never*) to 5 (*51+ times*). Responses are summed across items to compute a total combat trauma score. A respondent who was missing any of the items also had a missing overall score.

*Stress.* Participants were asked how much stress they experienced during the past year due to a variety of circumstances or situations related to work, family, and health, rating each of the 20 items from 1 (a lot) to 4 (none at all). This item was modified from the original used in the DoD Survey of Health Related Behaviors Among Active Duty Military Personnel (Bray et al., 2006). The life event stress (past 12 months) flag was created by summing the number of times a respondent said “a lot” to 20 different life events.



Respondents were also asked two items that assessed the amount of stress they experienced while at work and in their family life since leaving the military. Respondents rated their stress on a scale from 1 (a lot) to 4 (none at all). If respondents said that they had experienced “a lot” of the type of stress, they were assigned the flag. The flag for spouse stress was slightly different; if respondents indicated “a lot,” “some,” or “a little” stress in this domain, they were assigned the flag.

*Overall stress index.* The stress index is a sum score of individual domain indicators. Domains are made up of 2 to 11 individual FU survey items. Each individual domain indicator is set to 1 when any single item within that domain is endorsed as a source of stress. As a check on the construction of the stress index, individual items were correlated with all the domain indicators, and in no case did an individual stress item correlate with another domain indicator more highly than with its own domain indicator. The nine domains that are summed to create the stress index are the

- Workplace stress domain, comprised of FUQ40\_WORKSTRESS, FUQ47c\_INLOAD\_STRESS, FUQ47d\_DELOAD\_STRESS, FUQ47a\_REL\_STRESS, FUQ47b\_SUPER\_STRESS;
- Unemployment stress domain, comprised of FUQ68i\_LOST\_JOB, FUQ68l\_FIREDJOB, FUQ47s\_EMPLOYMENT, FUQ47t\_JOBSKILLS, FUQ68d\_UNEMP;
- Family stress domain, comprised of FUQ45\_FAMSTRESS, FUQ47e\_CONFLICT\_STRESS, FUQ47f\_BABY\_STRESS, FUQ47g\_DAYCARE\_STRESS, FUQ47n\_FAMHLTH\_STRESS, FUQ47o\_CHILDBEHAV\_STRESS, FUQ63a\_GRADES, FUQ63b\_BEHAVIOR, FUQ63c\_SOCIAL, FUQ63d\_BULLY, FUQ63e\_SUBUSE;
- Serious Event stress domain, comprised of FUQ68c\_FAMDRUG, FUQ47h\_DEATH\_STRESS, FUQ67f\_CLOSEDEATH, FUQ67e\_MENTAL;
- Marital stress domain, comprised of FUQ46\_SPSTRESS, FUQ47i\_DIV\_STRESS, FUQ47j\_INFIDELITY\_STRESS, FUQ68m\_DIVORCE;
- Legal stress domain, comprised of FUQ67g\_LEGALPROB, FUQ35\_ARRESTED, FUQ36\_WARRANTS, FUQ37\_PROBATION; and
- Money stress domain, comprised of FUQ47k\_MONEY\_STRESS, FUQ9\_BILLS, FUQ10\_MORTGAGE, FUQ11\_DEBTS, FUQ47l\_HOUSE\_STRESS.
- Mental Health stress domain being comprised of: FUQ47r\_GETALONG, FUQ68k\_TEMPER;

- Health stress domain being comprised of: FUQ47q\_HLTHCARE\_STRESS, FUQ68j\_PROBCARE, FUQ47m\_HEALTH\_STRESS, FUQ68n\_ILLNESS, FUQ67d\_SURGERY.

*Risk-taking/sensation-seeking.* This scale includes nine items. These items were the same as those analyzed in the 1990 National Alcohol Survey (Cherpitel, 1993). The items ask the respondents to rate how well each of nine statements describes them, with five risk-taking or impulsivity statements and four sensation-seeking or thrill-seeking statements. The items are reverse coded (e.g., a response of 4 becomes 1) so that higher scores indicate more risk-taking/sensation-seeking. The score is computed as the mean of the converted ratings.

*Health Behaviors.* Health behaviors were also assessed with several items from the DoD Survey of Health Related Behaviors Among Active Duty Military Personnel (Bray et al., 2006). Specifically, the following items were used to measure a variety of health-related behaviors:

Amount of moderate and vigorous physical activity in the past 30 days was indicated by number of days ranging from “about every day” to “less than 1 day per week.” If a respondent indicated that they participated in moderate or vigorous physical activity at least 3 days per week, then they were assigned the physically active flag.

Current cigarette smokers were defined as those who last smoked a cigarette during the past 30 days. Respondents who had smoked cigarettes in the past 30 days were assigned the flag for current smoker.

*Spirituality.* Religious or spiritual practices were measured with three items from the DoD Survey of Health Related Behaviors Among Active Duty Military Personnel (Bray et al., 2006) that asked about the number of times respondents attended religious/spiritual services since leaving the military, degree of agreement that religious/spiritual beliefs are an very important part of their life, and degree of agreement that their religious/spiritual beliefs influence how they make decisions in their life. Respondents answer the agreement questions on a scale from 1 (“strongly agree”) to 4 (“strongly disagree”). For the DoD survey, respondents were categorized as high if they reported “strongly agree” to the latter two items, medium if they reported either “strongly agree” or “agree” to at least one of these two questions, and low if they reported either “disagree” or “strongly disagree” to both questions. The question about attendance was not used in this scale. The Strong Religious Influence variable used in the modeling is Q46 reverse-coded so that higher values indicated higher self-reported influence of religious beliefs on life decisions.

*Utilization of Mental Health Services.* Use of mental health services was measured using a modified version of three items from the DoD Survey of Health Related Behaviors Among Active Duty Military Personnel (Bray et al., 2006). Respondents were asked to report “yes” or “no” on the sources of any mental health services since leaving the military (e.g., mental health professional at a VA facility, civilian mental health professional, self-help group, religious or pastoral counseling). In addition, respondents were asked to identify the concerns for which they sought counseling or therapy in the past 12 months, such as depression, anxiety, family problems, substance use problems, anger management, stress management, and combat/operational stress. Perceived need for mental health services in the past 12 months was measured by a “yes” or “no” item: “Since leaving the military, have you felt you needed counseling or therapy from a mental health professional?”

*Physical Health Problems.* The Post-Deployment Health Reassessment (PDHRA) Program (DD Form 2900) is administered during the 3- to 6-month time period after return from deployment. The content of the PDHRA was designed by DoD and VA clinicians, and it includes screens for posttraumatic stress disorder (PTSD) symptoms, interpersonal conflict, alcohol abuse, and depression (DoD, 2006). Three items from the PDHRA—although slightly modified for this study—were used to assess physical health problems. Respondents were asked to identify any health concerns or conditions (e.g., chronic cough, ringing in the ears, chest pain or pressure). For this study, the item was revised to make it more general and current and was modified to read “Please mark the items that best describe your current health concerns or conditions.” In addition, respondents were asked to report “yes” or “no” if their doctor ever told them they had any of the following: asthma, emphysema, or chronic bronchitis; hypertension; diabetes; respiratory illness; heart attack; high cholesterol; serious wound or injury; depression or mental health problem; and cancer. Respondents were also asked, “Since leaving the military, have you been hospitalized due to a serious illness, medical condition, or injury?” If respondents answered “yes,” they were asked to report the illnesses or medical conditions for which they were hospitalized.

## **2.2 Outcomes**

*Resilience.* The Connor-Davidson Resilience Scale (CD-RISC) was used to measure resilience and resilience trajectories (Connor & Davidson, 2003). This 25-item self-rated assessment measures resilience and stress coping over the past month and is the first widely used scale to address the increasingly important topic of resilience. Each item is rated from 0 (“not at all true”) to 4 (“true nearly all of the time”). The scoring range is between 0 and 100. Higher scores correspond to greater resilience. The scale builds on the work of previous researchers on

hardiness, action orientation, self-efficacy, confidence, adaptability, patience, and endurance in the face of adversity. The CD-RISC has been tested in both community and clinical samples and has demonstrated good internal consistency (Cronbach's alpha = 0.89) and test-retest reliability ( $r = 0.87$ ). Factor analysis has revealed five factors with eigenvalues ranging from 7.47 to 1.07, as follows: (1) reflects the notion of personal competence, high standards, and tenacity; (2) corresponds to trust in one's instincts, tolerance of negative affect, and strengthening effects of stress; (3) relates to the positive acceptance of change and secure relationships; (4) relates to control; and (5) relates to spiritual influences. When compared with other measures, the scale exhibits validity relative to stress and hardiness and reflects different levels of resilience in differentiated populations. The scale is sensitive to the effects of treatment, and clinical improvement is accompanied by up to a 25% increase in resilience, depending on the level of global improvement. According to its developers, the scale demonstrates that resilience is quantifiable and modifiable and can improve with pharmacologic and psychotherapeutic interventions (Davidson et al., 2006). Items were reverse scored and summed. If up to five items were missing, those items were imputed with the mean across the items that were not missing.

*Alcohol and Drug Abuse.* Current alcohol or drug abuse was measured with a revised two-item conjoint screen (TICS) for alcohol and other drug abuse or dependence. Research in patient populations has shown that current alcohol or other drug problems can be detected in nearly 80% of young and middle-aged people using these items (Brown, Leonard, Saunders, & Papsouliotis, 2001). This measure has also been used successfully in military population health research (Hoge et al., 2004). Respondents answered "yes" or "no" to the questions "Since leaving the military, have you ever drunk alcohol or used drugs more than you meant to?" and "Have you felt you wanted or needed to cut down on your drinking or drug abuse since leaving the military?" The TICS score is the sum of two items asking about the respondent's drug and alcohol use. If respondents scored at least one, out of a possible two, they were given the indicator for substance abuse.

*Need for Further Depression Evaluation.* The 20-item Center for Epidemiologic Studies–Depression Scale (CES-D) (Radloff, 1977) was used to assess depressive symptoms. Intended for self-report use in a general population, the scale has been used in many studies, including those with military populations, and has a coefficient alpha of 0.85 (Radloff, 1991). Respondents are asked if they have felt depressed, happy, lonely, sad, etc., during the past week. For this study, the response option scale was put in reverse order so that respondents rated their feelings or behavior on a scale of 1 ("most or all of the time") to 4 ("rarely or none of the time"). Items

were summed, and a cutoff score of 16 was used to indicate need for further depression evaluation. The total score for the scale is missing if more than three of the items were missing.

*Need for Further Anxiety Evaluation.* Seven items from the Patient Health Questionnaire (PHQ) were used to assess need for further anxiety evaluation. These items are widely used to screen for generalized anxiety symptoms (Spitzer, Kroenke, & Williams, 1999; Bray et al., 2006). Respondents screen positive if they report they had been bothered by feeling nervous, anxious, or on edge or by worrying a lot about different things for several days in the past month and had at least three other symptoms for more than half the days. Other symptoms include getting tired easily; muscle tension, aches, or soreness; trouble sleeping; trouble concentrating; becoming easily annoyed or irritable; and feeling restless so that it is hard to sit still.

*Need for Further Posttraumatic Stress Disorder (PTSD) Evaluation.* The presence or absence of PTSD symptoms was evaluated with the use of the National Center for PTSD Checklist of the Department of Veterans Affairs—civilian version (PCL-C) (Weathers, Litz, Huska, & Keane, 1994), which consists of a set of 17 items that ask about experiences related to PTSD. Items include characteristics such as loss of interest in activities that used to be enjoyable, being extremely alert or watchful, having physical reactions when reminded of a stressful experience, and feeling jumpy or easily startled. Respondents are asked to indicate how much they had been bothered by each of the 17 statements; response options were reverse ordered for this study and include “extremely,” “quite a bit,” “moderately,” “a little bit,” and “not at all.” Each statement is reversed scored from 0 to 4, and a sum for all items is computed. The standard cut-off was used such that if the sum is greater than or equal to 50, participants are classified as positive for PTSD (Lang & Stein, 2005). A second item, though not part of the PCL-C, asked respondents to indicate how long in general they have experienced these problems. Response options included “never,” “less than 1 month,” “1 month,” “2 to 3 months,” “4 to 6 months,” or “7 months or longer.”

*Suicidal Ideation.* Respondents were flagged as having suicidal thoughts if they responded to the PDHRA item that they had “been bothered by thoughts that [they] would be better off dead or hurting [themselves] in some way” in the past month.

*Any Mental Health Problem.* If respondents had any of the previously described indicators (PTSD, depression, anxiety, or suicide ideation), then they were given the flag for any mental health problem.

### **2.3 Data Collection Procedures**

The FU survey consisted of a mailed paper-and-pencil questionnaire with the option of completing the questionnaire via the Web. All participants from the BL survey who had separated from military service since completion of the BL survey (as identified by loss code in the CHAMPS database) were eligible for the second phase of study, and their participation in the FU survey was requested by mail. The time between their transition to civilian life and the FU survey ranged from 2 to 21 months and averaged 12 months.

Before fielding the FU survey, RTI verified the appropriate mailing address for all individuals using the following procedures. First, we examined the quality of contact information (address, phone, and e-mail) provided in the BL questionnaire. If no good address could be obtained in this manner, cases were sent to RTI's Tracing Operations (TOPS) unit for batch and intensive tracing as necessary. Approximately 4.1% of cases sent to batch tracing received updated address information. Once batch tracing was completed, any cases still needing address information were sent to intensive tracing. In conducting intensive tracing, RTI's tracing operations staff first attempted to contact the selected individual or a member of his or her family using the contact information the respondent provided on the baseline survey and/or the contact information the respondent entered into the project Web site after relocating. Additionally, TOPS tracers used a variety of other procedures in an effort to obtain the sample member's current address. These included (1) checking numerous forms of directory assistance for telephone listings at various addresses; (2) using electronic criss-cross directories to obtain the names and telephone numbers of current residents or neighbors of the sample members' previous addresses and then calling the current residents or neighbors; (3) calling persons with the same unusual surname in small towns or rural areas to see if they are related to or know the sample member; (4) contacting current or last known residential sources such as landlords and/or accessing tax assessors' records of homeownership; and (5) accessing advanced tracing sources. RTI TOPS tracers also utilized multiple nationwide databases to locate and verify current addresses, including credit bureaus, consumer and census-oriented databases, state Department of Motor Vehicle records, the U.S. Postal Service National Change of Address database, Telematch, death indices, Social Security files, ProCD, and Internet directory services. During the FU survey fielding period, any undeliverable mail received by RTI that did not include address updates from the postal service were also sent for intensive tracing on a periodic basis. Approximately 67.3% of all cases sent for intensive tracing received updated address information.

## 2.4 Mail Survey

**First Questionnaire Mailing.** A first questionnaire packet was sent to all baseline participants whom we could verify a separation date for in wave one. In wave two we included all other baseline participants. The packet included a cover letter that reminded participants of their earlier consent to participate, referenced the online survey option, and provided a unique login ID, as well as a hardcopy questionnaire and a postage-paid return envelope. Follow-up questionnaires were litho coded with the participant's unique ID. Respondents were asked to provide updated address information in the event the questionnaire had been forwarded but not to write names or Social Security numbers on the questionnaire.

**First Thank You/Reminder Card.** Within approximately 1 week of mailing the first questionnaire packet, RTI mailed a "thank you/reminder" card to all of the sample members. This mailing thanked respondents for returning their completed questionnaires and prompted participation from nonrespondents. The postcard also included the online survey URL and the sample member's personal login ID. The postcards were folded in half with sealed edges, thereby concealing the personalized login information (i.e., the IDNUM and PASSWORD) on the inside surface and preventing the information from being seen through from the outside.

**Second Questionnaire Mailing.** Within approximately 1 week of mailing the "thank you/reminder" card, RTI sent a second mailing to all eligible sample members who had not submitted a completed questionnaire either by mail or by the Web. The second mailing consisted of a more strongly worded cover letter stressing the importance of the study, a replacement questionnaire, and a return postage-paid envelope. The cover letter again provided a login ID and password for respondents to use with the Web survey.

**Second Thank You/Reminder Card.** Within approximately 1 week of mailing the second questionnaire packet, we mailed a "thank you/reminder" letter to all of the sample members who were sent the second questionnaire mailing. The content followed that of the first thank you/reminder card. Those who (1) had completed the survey, (2) were ineligible, (3) were nonlocatable (no good address is available, or all addresses found are nondeliverable), (4) had requested not to be contacted again, and (5) had not completed the survey after the second reminder mailing were eliminated from subsequent contacts.

**Help Desk Hotline.** RTI maintained a Help Desk Hotline for the duration of the FU survey. The hotline was accessible via both a toll-free number as well as a non-toll-free option. This helpdesk was manned by trained project staff who were available to answer questions about

the study, update contact information, reissue passwords, assist respondents in accessing the Web site, or assist in completing the Web survey.

**Receipt of Mail Surveys.** Survey materials were returned to our scoring contractor, SC Data, using preaddressed, prebarcoded business reply envelope. SC Data hand-keyed received surveys and stored the keyed surveys in locked cabinets in a secured area.

#### **2.4.1 Web Survey**

A Web option was offered for the convenience of those subjects who had Internet access. The web-based survey closely simulated the hardcopy version of the instrument, which was concurrently mailed to the sample.

**E-mail Messages and Reminders.** Concurrent with the first questionnaire mailing, an invitational e-mail was sent to all baseline respondents. Survey reminder e-mails were sent to participants at the end of the 2nd, 3rd, and 4th weeks of the data collection period.

When participants logged on to the study Web site, they were first asked to log in using the unique ID and password supplied to them in the lead letter. Next, they viewed a post login screen that gave more information about the 6-month follow-up and reminded them of their rights as voluntary research subjects.

## **2.5 Data Cleaning and Editing**

The data cleaning and editing process consisted of the following steps:

- One-way frequencies were reviewed to confirm all responses were within the response categories provided on the survey.
- The order of BL survey, FU survey, and separation dates were checked. Cases were removed from analysis if the individual separated from the military after the FU survey. The separation date was set to missing for those whose stated separation date was before the BL survey.
- Two-way cross-tabulations between each gate-nest combination of variables were reviewed for data consistency. This check involved questions 1, 20, 24, 49, 70, and 71. Gate questions are items that determine subsequent instrument routing. Nest variables are items that are asked or not asked, depending on the response to the gate questions. If the answer to the gate question is “No,” then any response to the nest variables were set to missing. If the gate question is missing but the respondent answered any of the nest questions, then the gate question was recoded to “Yes.”
- Items were identified requiring data corrections, consistency checks, or logical imputations:



- Items 16, 20, 59, 62, and 71 on the Web version were recoded to fix coding errors in the Web data.
- If the respondent answered “Today or during past 30 days” to question 28 (“When was the last time you smoked a cigarette?”) and answered “I did not smoke any cigarettes” to question 29, then a new category was created: “current smoker, amount unknown”.
- If the last time the respondent smoked a cigarette was more than 5 weeks ago, including never smoked cigarettes, and question 29 shows some amount of cigarettes smoked in the past 30 days then question 29 was recoded to “I didn’t smoke any cigarettes.”
- Responses to “other-specify” questions (20, 24, and 59) were examined, and if the response given was part of a pre-coded option in the survey, then the “other-specify” variable was set to missing and the corresponding pre-coded option was set to “Yes.”
- If the respondent answered “Yes” to any of the health coverage options (25a-h), then item 25i (“I do not have medical insurance...”) was set to “No.” If the respondent answered “No” to all of the health coverage options (25a-h), then item 25i (“I do not have medical insurance...”) was recoded to “Yes”.
- For items 6a-k, 67a-g, and 68a-n, if the respondent marked “Yes” to one or more items and the rest were missing, then the blank items were set to “No.”
- Removal of duplicate cases from the final data file occurred when 10 respondents completed at least part of both the paper and Web versions of the survey. The number of completed items was computed, and item responses were examined to determine which version, web or paper, was kept in the final data file. In cases where there was a significant discrepancy in the percentage complete in web and paper forms, the most complete version was kept. When the web and paper forms were essentially both completed with the same percentage, the more recent submission was kept because it had more civilian time and might have been submitted as a revision over the previous version.

## **SECTION 3 RESULTS**

### **3.1 Respondents and Response Rates**

A total of 3,753 military personnel (2,362 Sailors and 1,391 Marines) volunteered and completed an initial baseline (BL) survey. Non-response information was not available on the BL survey non-respondents who made up 45% of the sampled TAP class attendees. As shown in Table 3-1, the BL sample distribution of key demographic variables was very similar to that of all discharged Navy and Marine Corps personnel, obtained from official personnel records for 2007.

A total of 3,446 individuals (2,166 Sailors and 1,280 Marines) subsequently separated from the military in time to be eligible for the follow-up (FU) survey, and 3,090 (1,966 Sailors, 1,124 Marines) were locatable. Of these, 1,122 (750 Sailors, 372 Marines) individuals responded, giving an FU response rate of 32.6%. A nonresponse analysis was conducted, and nonresponse weight adjustments were calculated for all FU analyses to account for FU nonresponse.

### **3.2 Follow-up Survey Nonresponse Bias Analysis**

Tables 3-2 and 3-3 contain information comparing FU survey respondents and nonrespondents for both Sailors and Marines. These tables contain a wide variety of BL survey variables, including mental and physical health, demographic, Service and combat-related stress, resilience, spirituality, and social support indicators. Chi-square tests were conducted, separately within each branch of service, on each variable to see if the distributions of respondents and nonrespondents differed. An asterisk marks each variable where a difference was found at a  $p < .05$  significance level. Where significant results were found for polytomous response items, FU logistic regressions were employed to determine exactly where significant differences existed. These are described below.

Table 3-2 shows that at BL FU, nonrespondent Sailors had higher proportions than respondents who were showing signs of depression, showing symptoms of at least one mental health problem, rated themselves “low” on mental health, and were seeking counseling at the time for anger management. Nonrespondents relative to respondents had larger proportions who were African American, who were 34 years of age or younger, who were unmarried, or who were enlisted personnel or warrant officers. Nonrespondents had smaller proportions who were retiring relative to leaving for expiration of term of service (ETS) or other reasons, had larger proportions with a previous lifetime trauma, had relatively more reporting “High” life event

stress relative to “Low,” had larger proportions of current smokers, and had relatively more reporting “a lot” of work stress relative to “a little.” Nonrespondents compared to respondents

**Table 3-1. Comparison of Study Sample to Population of Separating Sailors and Marines in 2007**

	Baseline Respondents <sup>‡</sup>	Population*
Total	3,753 (100.0%)	56,141 (100.0%)
Service		
Navy	2,362 (62.9%)	33,923 (60.4%)
Marines	1,391 (37.1%)	22,218 (39.6%)
Sex		
Male	3,203 (85.4%)	49,685 (88.5%)
Female	550 (14.6%)	6,456 (11.5%)
Race/Ethnicity		
White, non-Hispanic	2,260 (60.2%)	36,477 (65.0%)
Black, non-Hispanic	503 (13.4%)	7,442 (13.3%)
Hispanic	646 (17.2%)	7,653 (13.6%)
Other	344 (9.2%)	4,569 (8.1%)
Age		
25 or younger	1,823 (48.5%)	25,978 (46.3%)
26 to 34	1,003 (26.8%)	16,022 (28.5%)
35 or older	927 (24.7%)	14,141 (25.2%)
Pay Grade		
E1–E9, W1–W5	3,512 (93.6%)	51,488 (91.7%)
O1–O6	241 (6.4%)	4,653 (8.3%)
Marital Status		
Married	1,921 (51.2%)	30,705 (54.7%)
Other than married	1,832 (48.8%)	25,436 (45.3%)

<sup>‡</sup>For the purposes of this table, missing values for each variable were proportionately assigned to the reported categories.

\*Data from the CHAMPS database (see Gunderson, Garland, Miller, & Gorham, 2005).

had smaller proportions that have been deployed for more time—3 or more months in the past 12 months—versus those deployed 2 or fewer months, and had a lower sense of unit cohesion and post-deployment social support.

**Table 3-2. Nonresponse Analysis—Navy Sample**

Measure	Navy	
	Respondents	Nonrespondents
Sample Size <sup>1</sup>	750	1,416
Anxiety		
Yes	16.4	18.6
Depression*		
Yes	31.2	36.9
PTSD		
Yes	11.4	13.8
Substance Abuse Indicator (TICS)		
Yes	39.2	40.7
Suicidal Ideation*		
Yes	7.1	4.9
Any Mental Health Problem* <sup>2</sup>		
Yes	36.9	42.6
Resilience		
Low	21.5	23.9
Medium	50.9	49.2
High	27.6	27
MOS Mental Health Scale*		
Low	15.2	21.8
Medium	52.2	49.8
High	32.6	28.4
Any Activity Restriction due to Poor Mental Health Past 30 Days		
Yes	26.7	27.4
Any Receipt of Mental Health Services in the Past 12 Months		
Yes	26.3	27.6

(continued)

**Table 3-2. Nonresponse Analysis—Navy Sample (continued)**

Measure	Navy	
	Respondents	Nonrespondents
Concerns for which Counseling Was Sought		
Depression	10.1	10.8
Anxiety	8	9.2
Family problems	8.2	9.7
Substance use problems	2.4	3.3
Anger management*	3.1	5.1
Stress management	6	8
Combat/operational stress	2.7	1.8
Other (specify)	5	5.7
I did not seek help from a mental health professional in the past 12 months	77.9	75.6
Feel the Need for Counseling		
Yes	23.8	24.6
Prescribed Medication for Mental Health Issue in Past 12 Months		
Yes	9.3	11.1
Gender		
Male	80.5	81.8
Female	19.5	18.2
Race/Ethnicity*		
White, non-Hispanic	60.1	55.2
African American, non-Hispanic	13.4	17.3
Hispanic	14.6	17
Other	12	10.5
Age*		
25 or younger	29.6	43
26 to 34	25.1	31.3
35 or older	45.3	25.7

(continued)

**Table 3-2. Nonresponse Analysis—Navy Sample (continued)**

Measure	Navy	
	Respondents	Nonrespondents
Family Status*		
Not married	41.7	48.9
Married	58.3	51.1
Pay Grade*		
E1–E9, W1–W5	86.9	94.4
O1–O6	13.1	5.6
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service		
Yes	5.4	6.4
Reason for Leaving Military*		
Retirement	41.1	22.5
Expiration of term of service (ETS)	40.3	54
Other	18.6	23.5
Current Smoker*		
Yes	31.5	37
Previous Lifetime Trauma*		
Yes	46.8	52.9
Life Event Stress		
Low	33.7	30.3
Medium	42.2	41.2
High	24.1	28.5
DRRI Post-Deployment Stressors Index		
Low	30.6	27.9
Medium	44.9	43.4
High	24.4	28.6

(continued)

**Table 3-2. Nonresponse Analysis—Navy Sample (continued)**

Measure	Navy	
	Respondents	Nonrespondents
Work Stress Indicator		
A lot	36.2	41.4
Some	34.6	33.5
A little	22	19
None	7.2	6.1
Family Stress Indicator		
A lot	23.8	24.8
Some	30	29.1
A little	31.2	27.9
None	15.1	18.1
Spouse Stress Indicator*		
A lot	24.6	20.1
Some	23.5	23.7
A little	17.2	15.3
None	4.7	4
I do not have a spouse	30	36.9
MOS Pain Indicator (past 4 weeks)		
Very severe/severe	7	8.5
Moderate	27.8	25.3
Mild	20.9	20.9
Very mild	21	19.6
None	23.4	25.7
MOS Current Health Perception		
Low	16.9	17.7
Medium	46.8	45.2
High	36.4	37.1

(continued)



**Table 3-2. Nonresponse Analysis—Navy Sample (continued)**

Measure	Navy	
	Respondents	Nonrespondents
Combat Exposure Scale Score		
Low	65.1	65.6
Medium	24	24.1
High	10.9	10.3
Number of Career Combat Deployments		
0	17.3	19
1	22.1	23.7
2	24.8	26.3
3 or 4	21.6	17.8
5 or more	14.2	13.3
Number of Months in Past Year on Combat Deployments		
0 months	58.3	55.1
1 to 6 months	26	26.6
7 to 12 months	15.7	18.3
Number of Months in Past Year on Noncombat Deployment*		
0 months	52.5	51
1 or 2 months	18.9	15.5
3 or 4 months	15.3	16.7
5 to 12 months	13.3	16.8
Deployment Extension—Ever in Career		
Yes	32.7	33.9
Place of Deployment		
Iraq/Afghanistan	64.7	66.5
Other, Not Iraq or Afghanistan	22.6	19.1
None	12.6	14.4
Avoidant Coping Strategy		
Yes	73.8	73.9

(continued)

**Table 3-2. Nonresponse Analysis—Navy Sample (continued)**

Measure	Navy	
	Respondents	Nonrespondents
Problem-Oriented Coping Strategy		
Yes	97.7	96.4
Spirituality Indicator		
Low	23.5	26.3
Medium	55.1	52.2
High	21.4	21.4
DRRI Deployment Social Support Scale (Unit Cohesion)*		
Low	11.5	15.9
Medium	55.9	57.2
High	32.5	26.9
DRRI Post-Deployment Social Support Scale (Personal Social Support)*		
Low	6.6	9.1
Medium	54.1	58.6
High	39.3	32.3
Physically Active, Moderate or Vigorous at Least 3 Days/Week		
Yes	63.9	66.3
Total Sample	34.6	65.4

\* Significant differences found between respondent and nonrespondent distributions ( $\alpha = .05$ )

Note: Nonrespondents include all eligible BL respondents whom we either failed to track or who failed to return a FU survey.

<sup>1</sup> Sample includes all BL respondents who are eligible for the FU survey at the time of FU survey administration.

<sup>2</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation)

**Table 3-3. Nonresponse Analysis—Marine Corps Sample**

Measure	Marine Corps	
	Respondents	Nonrespondents
Sample Size <sup>1</sup>	372	908
Anxiety		
Yes	29.1	32.6
Depression*		
Yes	44.6	52.3
PTSD*		
Yes	20.7	27.6
Substance Abuse Indicator (TICS)*		
Yes	45.7	55.8
Suicidal Ideation		
Yes	9	10.3
Any Mental Health Problem <sup>2</sup>		
Yes	52.2	58.3
Resilience*		
Low	22.9	30.6
Medium	56.1	48.6
High	21	20.8
MOS Mental Health Scale		
Low	28.4	32.5
Medium	54.1	54.4
High	17.6	13.1
Any Activity Restriction due to Poor Mental Health Past 30 Days		
Yes	36.6	41.2
Any Receipt of Mental Health Services in the Past 12 Months		
Yes	32.2	37.5

(continued)

**Table 3-3. Nonresponse Analysis—Marine Corps Sample (continued)**

Measure	Marine Corps	
	Respondents	Nonrespondents
Concerns for which Counseling Was Sought		
Depression	14.2	17.7
Anxiety	10.6	13.8
Family problems	10.1	13.1
Substance use problems*	2.8	7.2
Anger management	9.5	11.9
Stress management	10.3	13
Combat/operational stress	10.1	10.7
Other (specify)	5.3	4.9
I Did Not Seek Help from a Mental Health Professional in the Past 12 Months*	73.7	67.4
Feel the Need for Counseling*		
Yes	27.8	35
Prescribed Medication for Mental Health Issue in Past 12 Months		
Yes	13.1	14.4
Gender*		
Male	88.1	93.4
Female	11.9	6.6
Race/Ethnicity		
White, non-Hispanic	69.3	66.5
African American, non-Hispanic	6.3	8.7
Hispanic	16.6	19.4
Other	7.9	5.3
Age*		
25 or younger	59.1	71.1
26–34	29.6	22
35 or older	11.3	7
Family Status		
Not married	53.4	54.9
Married	46.6	45.1

(continued)

**Table 3-3. Nonresponse Analysis—Marine Corps Sample (continued)**

Measure	Marine Corps	
	Respondents	Nonrespondents
Pay Grade*		
E1–E9, W1–W5	93.5	96.9
O1–O6	6.5	3.1
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service*		
Yes	8.7	13.3
Reason for Leaving Military*		
Retirement	10.4	5.2
Expiration of term of service (ETS)	64.9	64.7
Other	24.8	30.1
Current Smoker*		
Yes	40.9	55.2
Previous Lifetime Trauma		
Yes	50.8	54.4
Life Event Stress		
Low	26.4	24.9
Medium	43.7	43.2
High	29.9	31.9
DRRI Post-Deployment Stressors Index		
Low	13.4	11.7
Medium	41.1	39
High	45.5	49.3
Work Stress Indicator		
A lot	52	50.8
Some	28.3	30.1
A little	14.8	15.7
None	4.9	3.4

(continued)

**Table 3-3. Nonresponse Analysis—Marine Corps Sample (continued)**

Measure	Marine Corps	
	Respondents	Nonrespondents
Family Stress Indicator*		
A lot	26.1	34.3
Some	30.1	26.2
A little	27.4	24.3
None	16.4	15.2
Spouse Stress Indicator		
A lot	24.9	25.1
Some	19	19.8
A little	8.9	12
None	1.6	2.6
I do not have a spouse	45.5	40.6
MOS Pain Indicator (past 4 weeks)		
Very severe/severe	10.5	13.4
Moderate	39.2	36.5
Mild	23.4	23.2
Very mild	15.1	16.4
None	11.8	10.5
MOS Current Health Perception		
Low	24.9	25.8
Medium	47.4	51.7
High	27.7	22.5
Combat Exposure Scale Score		
Low	14	16.8
Medium	26.6	27.2
High	59.5	56
Number of Career Combat Deployments*		
0	14.4	19.9
1	28.3	28.8
2	31.3	32.7
3 or 4	22.3	16.7
5 or more	3.8	1.9

(continued)

**Table 3-3. Nonresponse Analysis—Marine Corps Sample (continued)**

Measure	Marine Corps	
	Respondents	Nonrespondents
Number of Months in Past Year on Combat Deployments		
0 months	37.3	40.9
1 to 6 months	14.2	16.9
7 to 12 months	48.5	42.2
Number of Months in Past Year on Noncombat Deployment		
0 months	66.7	62.5
1 or 2 months	12.8	16.3
3 or 4 months	10.1	8.9
5 to 12 months	10.4	12.3
Deployment Extension—Ever in Career		
Yes	25.3	20.4
Place of Deployment		
Iraq/Afghanistan	81.9	75.5
Other, Not Iraq or Afghanistan	5.6	7.2
None	12.5	17.3
Avoidant Coping Strategy*		
Yes	73	81.2
Problem-Oriented Coping Strategy		
Yes	94.1	95.3
Spirituality Indicator		
Low	33	32.6
Medium	49.3	54.6
High	17.7	12.9
DRRI Deployment Social Support Scale (Unit Cohesion)		
Low	12.5	11.4
Medium	52.2	57.8
High	35.3	30.7
DRRI Post-Deployment Social Support Scale (Personal Social Support)		
Low	9.1	8.5
Medium	59	66
High	31.9	25.5

(continued)

**Table 3-3. Nonresponse Analysis—Marine Corps Sample (continued)**

Measure	Marine Corps	
	Respondents	Nonrespondents
Physically Active, Moderate or Vigorous at Least 3 Days/Week		
Yes	68.2	68.7
Total Sample	29.1	70.9

\*Significant differences found between respondent and nonrespondent distributions ( $\alpha = .05$ ).

Note: Nonrespondents include all those eligible BL respondents whom we either failed to track or who failed to return a follow-up survey.

<sup>1</sup> Sample includes all BL respondents who are eligible for FU survey at the time of FU survey administration.

<sup>2</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation)

Table 3-3 shows that at BL FU, nonrespondent Marines had higher proportions than respondents who were showing signs of depression, showing signs of PTSD, were reporting substance abuse, were seeking counseling at the time for substance abuse, were showing signs of at least one mental health issue, and had more “low” resilience scores relative to “medium.” Nonrespondents relative to respondents had larger proportions who were male, who were 25 years of age or younger or who reported being enlisted personnel or warrant officers. Nonrespondents had smaller proportions who were retiring and larger proportions leaving for ETS or other reasons. They report in relative larger numbers having a physical/mental condition that interferes with military service and being current smokers. Nonrespondents compared to respondents had larger proportions that have never had a combat deployment and smaller proportions that have had three or more combat deployments. They had larger proportions reporting using avoidant coping strategies and larger proportions scoring in the middle spirituality category, while smaller proportions scored in the high spirituality category.

Overall, the respondents showed fewer signs of BL mental health and substance abuse problems, were older, and were more likely to be retirees who have seen more lifetime combat deployments. These results are troublesome in that they indicate that many individuals who are already showing signs of mental health and other difficulties at BL are not responding to the FU survey and are thus not being accounted for in our FU descriptive and modeling analysis.

### 3.3 Follow-Up Survey Nonresponse Weighting

FU weights were created to reduce bias in the survey estimates produced by the FU survey nonresponse. RTI’s weighting software GEM (Generalized Exponential Modeling) was



used to compute the nonresponse adjustment factor with a model that contains the following characteristics at BL: race/ethnicity (white, African American, Hispanic, and other), service, age (25 or younger, 26 to 34, and 35 or older), gender, pay grade (E1–E9/W1–W5, O1–O6), and marital status. After this adjustment, the weighted sample distribution is the same as the distribution at BL, relative to the variables used to create the nonresponse weights.

### **3.4 Psychometric Analysis of Survey Scales**

This section contains the results of psychometric analysis on FU survey scales. This includes factor model fitting to assess whether the theoretical factor structure fits our data, assessment of the internal consistency of items contained in individual scale factors, and descriptive statistics describing the distribution of scale scores.

Those scales on the FU survey that met the assumptions of a factor analysis model were fit to the FU data with the results found in Table 3-4. The fit measure presented include the Comparative Fit Index (CFI) (Bentler, 1989), the Standardized Root Mean Square Residual (SRMR), which is the root of the mean of the squared residuals, and the root mean squared error approximation (RMSEA) coefficient (Steiger & Lind, 1980) along with its 90% confidence interval. The following criteria, which followed commonly accepted guidelines (Browne & Cudeck, 1993; Hu & Bentler, 1998, 1999; MacCallum et al., 1996), were applied to decide whether a scale had a good fit: CFI > .95, SRMR < .08, and RMSEA < .05 for good fit, < .08 for fair fit, < .10 for mediocre fit. By these standards, the generalized anxiety score, CES-D and CD-RISC scales all had good fit. The PCL-C scale with 4 factors was fair, and the MOS (Health Perception, Mental Health, and Pain) scales, post-deployment social support, and risk-taking and sensation-seeking scales all had unacceptable fits. MacCallum et al. (1996) describe a test of close fit, and in all cases these scales were found to fail the test of close fit to the data.

Exploratory factor analysis was conducted in a few cases where the fit was worse. For post-deployment social support, we found that a five-factor model fit best. The first factor had items indicating the person has someone who will listen to them (items a, b, d, and f); the second factor indicating the person has friends or relatives who would give them substantial help if needed has items i and j; the third factor included items dealing with understanding in the work

**Table 3-4. Confirmatory Factor Analysis Results—Selected Fit Statistics**

Scale	CFI	SRMR	RMSEA	RMSEA_LCL	RMSEA_UCL
Anxiety	0.9811	0.0244	0.0793	0.0628	0.0970
CES-D	0.9577	0.0383	0.0563	0.0521	0.0606
MOS scales	0.8781	0.0735	0.1489	0.1411	0.1568
PCL-C (3 Factor)	0.9144	0.0420	0.1083	0.1036	0.1132
PCL-C (4 Factor)	0.9430	0.0413	0.0892	0.0844	0.0941
Post-dep soc support	0.7755	0.0762	0.1427	0.1357	0.1497
CD-RISC	0.9123	0.0472	0.0761	0.0729	0.0794
RISK scales	0.9250	0.0650	0.1329	0.1231	0.1429

place and loaded items g and h; the fourth factor, which described access to help when needed with daily chores or when ill, which may signal support in their living situation, had items k and l; and the fifth factor, which had the two reverse-coded items (c and e), reflected the experience of not being understood by those around them.

For the risk-taking/sensation-seeking items, we found that a three-factor model fit best. The first factor contained the sensation-seeking items (f–i), the second factor contained the impulsiveness items (a, c, and e), while the third factor contained the two risk-taking items (b and d).

Finally for the MOS scales, we found that a two-factor model is probably best, because three-factor models tended to have singleton factors, none of which were the MOS pain item. The two-factor model had a first factor with all the mental health items from Q18 except for (a). The second factor had all the health perception items from Q17, plus Q18's item (a), social limitation due to health, and the pain item (Q15). Thus, the factors split between mental health and general health, with limitations on social activity and pain more closely tied to general health issues.

Coefficient alphas were also calculated for individual scale factors to measure internal consistency (see Table 3-5). Most were acceptable, although the Spiritual Influences Factor for the CD-RISC scale fell below the lowest acceptable level of .70, and the DRRRI Post Deployment Social Support Scale also did not perform very well on this measure. With only two items, the two-item Spiritual Influences Factor could not be improved by item deletion. The analysis showed the DRRRI Post Deployment Social Support Scale could be improved by removing either item (c) or (e) from the scale; however, these are the two reverse-worded items, and this likely indicated that there is a response set operating such that reverse-worded items cannot simply be reverse coded and have the same distributions as other items. This scale, as the exploratory factor analysis results described above show, is fairly multidimensional and could probably only be improved by narrowing its dimensionality, or splitting it into constituent factor scores.

**Table 3-5. Coefficient Alphas for Individual Scale Factors**

Scale	Alpha
CES-D Depressive Affect Factor	0.913639
CES-D Well-Being Factor	0.839017
CES-D Somatic Symptoms Factor	0.864834
CES-D Interpersonal Affect Factor	0.782432
PCL-C Reexperiencing Factor	0.939053
PCL-C Avoidance Factor	0.894180
PCL-C Emotional Numbing Factor	0.905823
PCL-C Hyperarousal Factor	0.901968
CD-RISC Persnl Comptnc, Hi Stnds, & Tenacity Factor	0.926673
CD-RISC Trust Instncts, Tolrt Neg Aff & Strthg Strs Effs	0.868875
CD-RISC Pos Acceptc Change, & Sec Relatnshps Factor	0.842203
CD-RISC Control Factor	0.849817
CD-RISC Spiritual Influences Factor	0.647391
DRRI Post Deployment Social Support Scale	0.719240
Generalized Anxiety Score	0.889219
MOS Health Perception Scale	0.890813
MOS Mental Health Scale	0.894014
Risk-Taking Scale	0.881047
Sensation-Seeking Scale	0.912821

Table 3-6 contains descriptive statistics for the score distributions of all scales in the FU survey. This includes some formative scales (e.g., DDRI Post Deployment Social Support Scale, Life Event Stress Index, Cumulative Civilian Trauma Count, etc.) that were not analyzed using factor models because they did not follow the assumptions of a factor model. Three scales have skewness or kurtosis values that were a bit large. The Post-deployment Stress and Cumulative Civilian Trauma Count scales had slightly higher kurtosis, and the Life Event Stress scale had slightly higher skewness and kurtosis than would be found in normally distributed data.

**Table 3-6. Distribution of Follow-Up Scale Scores for Separated Navy and Marine Corps Personnel**

Variable	Min	Max	Mean	Std Dev	Skewness	Kurtosis
CD-RISC	0.0	100.0	75.0	18.0	-0.9	1.0
CES-D	0.0	60.0	14.4	12.5	1.2	1.0
Sum of PTSD Items	0.0	85.0	30.8	19.4	0.6	0.0
Anxiety Items from Patient Health Questionnaire	0.0	1.0	0.2	0.4	1.5	0.2
Post-Deployment Social Support*	4.0	60.0	45.6	9.0	-0.6	0.5
Post-Deployment Stress**	0.0	13.0	2.0	2.1	1.7	3.5
Life Event Stress***	0.0	15.0	1.5	2.3	2.3	6.6
Cumulative Civilian Trauma Count	0.0	21.0	2.7	2.7	1.7	4.1
MOS Mental Health Scale	0.0	100.0	69.8	21.0	-0.9	0.2
MOS Health Perception Scale	0.0	100.0	62.9	27.2	-0.5	-0.7
Risk-Taking Scale	1.0	4.0	2.1	0.8	0.5	-0.1
Sensation-Seeking Scale	1.0	4.0	2.7	0.9	-0.1	-0.7
Two Item Conjoint Scale (TICS)	0.0	2.0	0.4	0.7	1.5	0.7

\* Three items shorter than BL survey scale.

\*\* Four items longer than BL survey scale.

\*\*\* Contains wording changes and three more items than BL survey scale.

### 3.5 Descriptive Statistics

Table 3-7 provides sample characteristics for the FU sample and corresponding BL comparison figures where available. Matching closely the BL profile, the FU survey Navy and Marine Corps participants are male (Navy 81.2%, Marine Corps 91.9%), White non-Hispanic (Navy 56.9%, Marine Corps 67.5%), and former enlisted personnel (Navy 91.8%, Marine Corps 95.9%). Table 3-8 through 3-14 present these sample characteristics by resilience (Table 3-8), anxiety level (Table 3-9), depression (Table 3-10), substance abuse (Table 3-11), PTSD (Table

3-12), suicidal ideation (Table 3-13), and any mental health problem (Table 3-14). Key variables from these tables are used in the models seen in Tables 3-20 - to 3-21.

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup>**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Sample Size <sup>2</sup>	2,166.0	1,280.0	750.0	372.0
Gender				
Male	81.3	91.8	81.2	91.9
Female	18.7	8.2	18.8	8.1
Race/Ethnicity				
White, non-Hispanic	56.9	67.3	56.9	67.5
African American, non-Hispanic	15.9	8.0	15.9	7.9
Hispanic	16.1	18.6	16.1	18.5
Other	11.1	6.0	11.0	6.1
Age				
25 or younger	38.2	67.5	38.3	66.4
26–34	29.1	24.2	29.0	25.0
35 or older	32.8	8.3	32.7	8.6
Family Status				
Not married	46.4	54.4	45.0	55.9
Married	53.6	45.6	55.0	44.1
Pay Grade				
E1–E9, W1–W5	91.8	95.9	91.8	95.9
O1–O6	8.2	4.1	8.2	4.1
Disability or Separation for a Physical/ Mental Condition that Interferes with Military Service	6.0	12.0	6.1	8.9
Time in Civilian Life <sup>3</sup>				
2–5 months	N/A	N/A	4.8	4.0
6–8 months	N/A	N/A	12.6	11.9
9–11 month	N/A	N/A	20.8	14.8
12–14 months	N/A	N/A	21.0	28.5
15–17 months	N/A	N/A	32.3	31.4
18+ months	N/A	N/A	8.4	9.3

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Single with Dependent Child(ren):	N/A	N/A	11.9	9.6
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	56.2	50.8
Working part-time (work fewer than 35 hours per week on average)	N/A	N/A	12.0	15.2
Working as self-employed in own business or profession	N/A	N/A	2.4	4.2
Unemployed	N/A	N/A	27.8	29.1
An unpaid worker (volunteer)	N/A	N/A	5.3	5.0
Retired	N/A	N/A	16.6	6.3
In school	N/A	N/A	37.5	45.4
A homemaker, housewife, househusband	N/A	N/A	10.8	7.0
Disabled	N/A	N/A	14.8	21.0
Working multiple jobs	N/A	N/A	4.7	6.0
Working temporary job(s)	N/A	N/A	7.2	8.1
Current personal monthly income:				
Less than \$1,000	N/A	N/A	17.4	19.6
\$1,000 to \$1,499	N/A	N/A	15.3	20.6
\$1,500 to \$1,999	N/A	N/A	13.2	17.5
\$2,000 to \$2,999	N/A	N/A	18.3	21.0
\$3,000 to \$4,999	N/A	N/A	18.5	13.9
\$5,000 or more	N/A	N/A	17.3	7.4
Are You Currently Receiving any Service-Related Disability Compensation?	N/A	N/A	40.9	53.7
Work Stress Indicator <sup>4</sup>				
A lot	39.6	51.1	14.9	21.1
Some	33.9	29.6	28.0	26.1
A little	20.0	15.5	25.9	24.7
None	6.5	3.8	31.2	28.0

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Family Stress Indicator				
A lot	24.5	31.9	25.0	31.1
Some	29.4	27.4	25.4	23.6
A little	29.1	25.2	30.7	27.2
None	17.1	15.5	18.9	18.1
Spouse Stress Indicator				
A lot	21.7	25.0	18.1	19.0
Some	23.6	19.5	18.6	19.4
A little	15.9	11.1	20.1	17.3
None	4.3	2.3	10.4	3.8
I do not have a spouse	34.5	42.0	32.9	40.5
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	8.0	12.5	9.2	15.4
Moderate	26.2	37.3	28.6	34.4
Mild	20.9	23.3	20.9	20.2
Very Mild	20.1	16.0	18.9	16.0
None	24.9	10.9	22.4	14.0
MOS Current Health Perception				
Low	17.4	25.5	19.7	23.8
Medium	45.7	50.5	41.0	44.9
High	36.8	24.0	39.4	31.3
Combat Exposure Scale Score				
Low	65.4	15.9	66.3	14.2
Medium	24.1	27.0	23.0	25.1
High	10.5	57.1	10.6	60.7

(continued)



**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Number of Career Combat Deployments				
0.0	18.4	18.3	19.0	13.9
1.0	23.2	28.6	24.0	28.7
2.0	25.8	32.3	26.9	31.9
3 or 4	19.1	18.4	19.2	22.0
5 or more	13.6	2.5	10.8	3.4
Number of Months in Past Year on Combat Deployments				
0 months	56.2	39.8	55.3	34.9
1 to 6 months	26.4	16.1	28.1	15.1
7 to 12 months	17.4	44.1	16.6	50.0
Number of Months in Past Year on Noncombat Deployment				
0 months	51.5	63.7	50.3	65.8
1 or 2 months	16.7	15.3	18.9	12.7
3 or 4 months	16.2	9.3	16.8	10.2
5 to 12 months	15.5	11.8	14.0	11.3
Deployment Extension—Ever in Career				
Yes	33.5	21.8	30.8	25.2
Place of Deployment				
Iraq/Afghanistan	65.9	77.4	64.4	82.5
Other, Not Iraq or Afghanistan	20.3	6.7	21.5	5.4
None	13.8	15.9	14.1	12.1
Currently Have Injuries or Health Problems as a Result of my Military Experience	N/A	N/A	60.6	72.7
Currently Have Injuries or Health Problems Not Related to my Service in the Military	N/A	N/A	13.5	12.6
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	4.1	8.0
Money Issues	N/A	N/A	45.2	45.1
Legal Issues	N/A	N/A	3.9	9.0

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Smoker	35.1	51.1	27.1	34.1
Heavy Drinker	N/A	N/A	8.7	18.5
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about any Recent Changes in your Appearance, Quality of Work, or Relationships?	N/A	N/A	8.7	14.9
Since Leaving the Military, Have You Had a Physical or Mental Condition that Caused You to Lose Your Job?	N/A	N/A	3.2	5.4
How Many Times Have You Changed Jobs Since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	57.3	49.6
1 job change	N/A	N/A	23.1	19.1
More than 1 job change	N/A	N/A	19.6	31.3
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	7.8	13.2
1 or 2 times	N/A	N/A	10.1	13.0
0 times	N/A	N/A	82.2	73.7
Since Leaving the Military, Have You had Problems Sleeping because of Nightmares?	N/A	N/A	16.6	35.4
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	37.7	58.5
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	10.2	17.9
Some	N/A	N/A	28.9	29.7
A little	N/A	N/A	30.9	29.3
None at all	N/A	N/A	30.0	23.0

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Since Leaving the Military Did You Drive a Car or Other Vehicle when You Had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	6.0	7.8
Yes, 2 or 3 times	N/A	N/A	8.3	11.0
Yes, more than 3 times	N/A	N/A	4.9	9.4
No	N/A	N/A	80.8	71.8
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	3.5	6.5
No	N/A	N/A	96.5	93.5
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	5.1	10.7
No	N/A	N/A	94.9	89.3
Risk-Taking				
Not at all	N/A	N/A	22.0	13.3
A little	N/A	N/A	56.8	43.7
Some	N/A	N/A	17.6	28.4
A lot	N/A	N/A	3.7	14.6
Sensation-Seeking				
Not at all	N/A	N/A	9.4	4.1
A little	N/A	N/A	33.3	23.0
Some	N/A	N/A	40.1	39.3
A lot	N/A	N/A	17.2	33.6
Avoidant Coping Strategy	73.8	78.8	75.4	73.6
Problem-Oriented Coping Strategy	96.8	95.0	97.7	93.9

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Spirituality Indicator				
Low	25.3	32.7	27.0	38.9
Medium	53.2	53.0	50.9	45.2
High	21.4	14.3	22.1	15.9
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	14.3	11.8	12.4	12.6
Medium	56.8	56.2	59.0	52.5
High	28.9	32.1	28.6	34.9
DRRI Post-Deployment Social Support Scale (Personal Social Support)				
Low	8.2	8.7	22.7	26.8
Medium	57.0	63.9	46.2	51.9
High	34.8	27.4	31.1	21.3
Physically Active, Moderate or Vigorous at Least 3 Days/Week	65.5	68.6	60.7	66.2
Know At Least One Military Veteran to Talk To about War Experiences or Other Stressful Deployment Events	N/A	N/A	73.2	74.7
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	82.5	85.3
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	31.6	42.9
What Type of Group(s)? (Mark all that apply.)				
Social group	N/A	N/A	55.6	61.4
Support group	N/A	N/A	8.0	11.1
Reserve unit	N/A	N/A	14.2	13.0
Sports team	N/A	N/A	5.1	1.2
Other	N/A	N/A	32.4	36.8
Anxiety	17.9	31.6	15.9	29.5
Depression	34.9	50.0	33.4	47.8
PTSD	13.0	25.6	16.7	29.5

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Substance Abuse Indicator (TICS)	40.2	52.9	26.3	32.7
Suicidal Ideation	5.7	9.9	10.0	13.4
Any Mental Health Problem <sup>5</sup>	40.6	56.5	38.8	54.4
Resilience	91.9	90.2	90.2	89.6
MOS Mental Health Scale				
Low	19.5	31.3	19.0	30.8
Medium	50.6	54.3	50.6	41.4
High	29.9	14.4	30.3	27.8
Any Activity Restriction due to Poor Mental Health Past 30 Days	27.1	39.8	33.2	44.2
Any Receipt of Mental Health Services in the Past 12 Months	27.1	35.9	22.8	35.7
Concerns for Which Counseling Was Sought				
Depression	10.5	16.7	10.4	20.2
Anxiety	8.8	12.8	9.3	17.6
Family problems	9.2	12.2	5.6	8.3
Substance use problems	3.0	5.9	1.3	2.5
Anger management	4.4	11.2	4.9	14.3
Stress management	7.3	12.2	6.5	16.3
Combat/operational stress	2.1	10.5	3.8	16.8
Other (specify)	5.4	5.1	3.9	3.3
I did not seek help from a mental health professional in the past 12 months	76.4	69.3	82.2	71.6
Feel the Need for Counseling	24.3	32.9	25.5	36.9
Prescribed Medication for Mental Health Issue in past 12 months	10.5	14.0	10.3	18.8

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Overall, How Satisfied or Dissatisfied are you with the Quality of Health Care You Have Received since Leaving the Military?				
Very satisfied	N/A	N/A	23.5	18.1
Somewhat satisfied	N/A	N/A	33.9	35.2
Somewhat dissatisfied	N/A	N/A	9.5	12.8
Very dissatisfied	N/A	N/A	7.3	7.7
I have not received any health care since leaving the military	N/A	N/A	25.7	26.2
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	10.7	12.1
A small problem	N/A	N/A	20.2	22.9
Not a problem	N/A	N/A	69.1	65.0
Since Leaving the Military, When You Needed Care Right Away for an Illness, Injury, or Condition, How Often did You Get Care as Soon as You Thought You Needed It?				
Always	N/A	N/A	22.0	19.3
Usually	N/A	N/A	18.9	17.0
Sometimes	N/A	N/A	19.1	18.6
Never	N/A	N/A	8.2	12.1
I have not needed health care since leaving the military.	N/A	N/A	31.9	32.9
Since Leaving the Military, Was There any Time When You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	13.4	16.1
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	41.4	36.8
I had to wait on approval from my health insurance	N/A	N/A	11.9	6.6

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
I could not fit it into my schedule	N/A	N/A	1.6	1.5
I could not afford to miss work	N/A	N/A	12.3	6.0
I had to wait too long for an appointment	N/A	N/A	25.4	24.6
I had to drive too far for the medical care	N/A	N/A	1.6	10.5
Other	N/A	N/A	5.7	14.1
Do you have Health Coverage?	N/A	N/A	81.4	79.1
Overall, How Satisfied or Dissatisfied are you with the Health Care Available to You?				
Very satisfied	N/A	N/A	32.5	28.5
Somewhat satisfied	N/A	N/A	46.7	43.7
Somewhat dissatisfied	N/A	N/A	9.6	15.6
Very dissatisfied	N/A	N/A	11.1	12.3
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	6.8	14.3
Since Leaving the Military, My Children Experienced the Following or Behaved in any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	12.5	8.4
Disruptive or problem behavior	N/A	N/A	19.0	18.6
Social withdrawal from peers	N/A	N/A	5.5	5.0
Bullying	N/A	N/A	7.0	8.6
Alcohol or drug use	N/A	N/A	3.6	0.5

(continued)

**Table 3-7. Sample Characteristics of Transition Study Participants by Service Branch<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Navy	Marine Corps	Navy	Marine Corps
Total Sample	62.9	37.1	62.9	37.1

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under Baseline Navy are the percentages of those in the Navy at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>3</sup> Minimum civilian time is 2 months.

<sup>4</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>5</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation).

Source: 2007—Status of Transitioning Military Personnel Survey



**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>**

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Sample Size <sup>3</sup>	3,087.0	295.0	941.0	98.0
Gender				
Male	85.3	84.6	84.8	85.5
Female	14.7	15.4	15.2	14.5
Race/Ethnicity				
White, non-Hispanic	60.9	61.4	63.7	48.4
African American, non-Hispanic	13.1	12.3	11.9	18.7
Hispanic	16.8	17.7	15.5	21.9
Other	9.2	8.5	8.9	11.0
Age				
25 or younger	48.2	56.9	48.1	55.4
26–34	26.9	31.8	28.0	24.3
35 or older	24.9	11.3	23.9	20.2
Family Status				
Not married	48.7	56.7	47.5	62.3
Married	51.3	43.3	52.5	37.7
Pay Grade				
E1–E9, W1–W5	92.9	98.0	93.2	98.0
O1–O6	7.1	2.0	6.8	2.0
Disability or Separation for a Physical/ Mental Condition that Interferes with Military Service	7.6	14.3	6.9	10.9
Time in Civilian Life <sup>4</sup>				
2–5 months	N/A	N/A	4.1	4.9
6–8 months	N/A	N/A	12.7	12.7
9–11 month	N/A	N/A	18.3	18.2
12–14 months	N/A	N/A	24.2	20.9
15–17 months	N/A	N/A	32.3	33.0
18+ months	N/A	N/A	8.4	10.3

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Single with Dependent Child(ren):	N/A	N/A	9.7	20.2
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	54.7	42.2
Working part-time (work fewer than 35 hours per week on average)	N/A	N/A	13.5	11.8
Working as self-employed in own business or profession	N/A	N/A	3.2	1.9
Unemployed	N/A	N/A	27.2	43.4
An unpaid worker (volunteer)	N/A	N/A	5.2	5.1
Retired	N/A	N/A	12.8	14.8
In school	N/A	N/A	41.2	34.3
A homemaker, housewife, househusband	N/A	N/A	9.9	6.1
Disabled	N/A	N/A	15.5	32.8
Working multiple jobs	N/A	N/A	5.2	4.1
Working temporary job(s)	N/A	N/A	7.4	11.6
Current personal monthly income:				
Less than \$1,000	N/A	N/A	17.9	23.5
\$1,000 to \$1,499	N/A	N/A	17.0	24.0
\$1,500 to \$1,999	N/A	N/A	14.8	16.9
\$2,000 to \$2,999	N/A	N/A	18.9	18.1
\$3,000 to \$4,999	N/A	N/A	17.3	11.5
\$5,000 or more	N/A	N/A	14.1	6.0
Are You Currently Receiving any Service-Related Disability Compensation?	N/A	N/A	45.4	52.4
Work Stress Indicator <sup>5</sup>				
A lot	42.8	55.1	15.8	30.2
Some	32.5	29.6	27.4	26.4
A little	19.2	11.2	26.2	18.5
None	5.5	4.1	30.6	25.0

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Family Stress Indicator				
A lot	25.9	42.5	25.0	49.3
Some	29.1	25.2	24.9	20.9
A little	28.9	14.3	31.1	14.9
None	16.1	18.0	19.1	14.9
Spouse Stress Indicator				
A lot	22.7	27.8	18.4	21.1
Some	22.5	18.6	18.4	20.3
A little	14.6	8.2	20.1	11.6
None	3.3	4.5	8.0	7.2
I do not have a spouse	36.9	40.9	35.2	39.8
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	9.0	16.3	9.3	30.4
Moderate	30.4	28.8	30.0	32.9
Mild	21.9	21.7	21.3	16.6
Very mild	18.6	17.6	19.2	7.3
None	20.1	15.6	20.2	12.8
MOS Current Health Perception				
Low	18.9	37.1	17.0	57.7
Medium	47.3	47.1	43.1	33.9
High	33.8	15.8	40.0	8.4
Combat Exposure Scale Score				
Low	48.3	46.8	48.7	43.3
Medium	25.6	20.2	22.9	20.2
High	26.1	33.0	28.4	36.5

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Number of Career Combat Deployments				
0.0	17.9	21.6	17.3	22.7
1.0	24.9	29.5	26.5	26.2
2.0	28.1	29.5	28.0	25.1
3 or 4	19.1	15.4	19.9	21.0
5 or more	10.1	4.1	8.3	5.0
Number of Months in Past Year on Combat Deployments				
0 months	50.1	51.0	48.0	48.8
1 to 6 months	22.7	21.9	23.0	21.2
7 to 12 months	27.2	27.1	29.1	30.0
Number of Months in Past Year on Noncombat Deployment				
0 months	56.0	56.4	55.0	64.8
1 or 2 months	16.2	16.2	17.4	12.6
3 or 4 months	13.7	13.4	15.3	9.4
5 to 12 months	14.1	14.1	12.2	13.3
Deployment Extension—Ever in Career				
Yes	29.6	24.6	28.0	26.1
Place of Deployment				
Iraq/Afghanistan	70.3	70.2	70.9	71.7
Other, Not Iraq or Afghanistan	15.6	10.6	15.5	13.0
None	14.2	19.1	13.7	15.3
Currently Have Injuries or Health Problems as a Result of my Military Experience	N/A	N/A	63.0	85.0
Currently Have Injuries or Health Problems Not Related to my Service in the Military	N/A	N/A	13.1	13.1
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	4.6	15.4
Money Issues	N/A	N/A	41.3	73.2

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Legal Issues	N/A	N/A	5.5	9.5
Smoker	40.2	49.0	29.1	38.8
Heavy Drinker	N/A	N/A	11.9	15.3
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about any Recent Changes in Your Appearance, Quality of Work, or Relationships?	N/A	N/A	8.3	32.1
Since Leaving the Military, Have You Had a Physical or Mental Condition that Caused You to Lose Your Job?	N/A	N/A	2.4	16.7
How Many Times Have You Changed Jobs since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	55.2	48.2
1 job change	N/A	N/A	21.5	22.4
More than 1 job change	N/A	N/A	23.3	29.4
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	7.4	29.2
1 or 2 times	N/A	N/A	10.7	15.0
0 times	N/A	N/A	81.9	55.8
Since Leaving the Military, Have You had Problems Sleeping Because of Nightmares?	N/A	N/A	21.4	44.8
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	42.4	74.6
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	10.1	40.4
Some	N/A	N/A	27.7	44.5
A little	N/A	N/A	32.0	11.6
None at all	N/A	N/A	30.2	3.6

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Since Leaving the Military Did You Drive a Car or Other Vehicle when You Had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	6.5	7.3
Yes, 2, or 3 times	N/A	N/A	8.9	12.6
Yes, more than 3 times	N/A	N/A	6.4	9.3
No	N/A	N/A	78.2	70.8
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	4.8	3.7
No	N/A	N/A	95.2	96.3
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	7.4	5.8
No	N/A	N/A	92.6	94.2
Risk-Taking				
Not at all	N/A	N/A	19.7	13.3
A little	N/A	N/A	52.6	42.7
Some	N/A	N/A	20.8	30.2
A lot	N/A	N/A	6.9	13.9
Sensation-Seeking				
Not at all	N/A	N/A	6.2	17.7
A little	N/A	N/A	28.8	36.6
Some	N/A	N/A	41.3	29.5
A lot	N/A	N/A	23.7	16.2
Avoidant Coping Strategy	75.3	79.0	74.3	81.2
Problem-Oriented Coping Strategy	97.6	82.0	96.7	89.7

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Spirituality Indicator				
Low	26.2	49.7	29.8	45.5
Medium	53.7	43.8	49.4	42.6
High	20.1	6.6	20.8	11.9
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	11.6	32.4	11.3	23.4
Medium	56.6	57.4	57.0	56.1
High	31.8	10.2	31.8	20.4
DRRI Post-deployment Social Support Scale (Personal Social Support)				
Low	6.4	28.0	18.6	78.0
Medium	59.1	65.7	51.1	21.1
High	34.5	6.4	30.3	0.9
Physically Active, Moderate or Vigorous at Least 3 Days/Week	67.8	53.9	65.3	38.6
Know at Least One Military Veteran to Talk to about War Experiences or Other Stressful Deployment Events	N/A	N/A	76.8	48.5
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	85.2	59.4
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	37.0	27.9
What type of group(s)? (Mark all that apply.)				
Social group	N/A	N/A	58.6	55.2
Support group	N/A	N/A	7.9	28.6
Reserve unit	N/A	N/A	14.8	0.0
Sports team	N/A	N/A	3.0	4.4
Other	N/A	N/A	35.3	25.4
Anxiety	20.9	43.3	17.3	50.6
Depression	36.8	75.7	32.9	87.2

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
PTSD	15.1	41.6	16.9	62.8
Substance Abuse Indicator (TICS)	43.8	58.8	27.7	37.3
Suicidal Ideation	5.7	23.3	8.7	36.2
Any Mental Health Problem <sup>6</sup>	43.0	78.6	38.5	93.3
Resilience	N/A	N/A	N/A	N/A
MOS Mental Health Scale				
Low	20.4	56.5	18.1	68.9
Medium	53.5	38.4	49.5	27.5
High	26.1	5.1	32.4	3.6
Any Activity Restriction due to Poor Mental Health Past 30 Days	29.0	60.8	33.2	75.0
Any Receipt of Mental Health Services in the Past 12 Months	29.2	42.9	24.5	57.5
Concerns for which Counseling Was Sought				
Depression	10.8	32.7	10.6	46.5
Anxiety	9.0	22.1	9.5	39.7
Family problems	9.7	16.0	6.0	12.7
Substance use problems	3.6	7.8	1.5	4.5
Anger management	6.2	13.9	7.0	21.3
Stress management	8.1	18.9	7.9	31.0
Combat/operational stress	4.7	9.3	6.9	24.2
Other (specify)	5.0	7.8	3.5	5.6
I did not seek help from a mental health professional in the past 12 months	75.5	56.6	81.2	49.6
Feel the Need for Counseling	25.1	51.6	25.6	67.7
Prescribed Medication for Mental Health Issue in past 12 months	10.5	24.5	11.2	35.1

(continued)



**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Overall, How Satisfied or Dissatisfied are you with the Quality of Health Care You have Received since Leaving the Military?				
Very satisfied	N/A	N/A	23.4	8.0
Somewhat satisfied	N/A	N/A	33.2	38.4
Somewhat dissatisfied	N/A	N/A	10.3	13.7
Very dissatisfied	N/A	N/A	5.9	21.8
I have not received any health care since leaving the military	N/A	N/A	27.2	18.1
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	9.5	26.9
A small problem	N/A	N/A	19.4	36.3
Not a problem	N/A	N/A	71.1	36.7
Since Leaving the Military, when You Needed Care Right Away for an Illness, Injury, or Condition, How Often did You Get Care as Soon as You Thought You Needed It?				
Always	N/A	N/A	21.8	12.7
Usually	N/A	N/A	17.9	21.3
Sometimes	N/A	N/A	16.9	34.4
Never	N/A	N/A	9.1	16.5
I have not needed health care since leaving the military.	N/A	N/A	34.2	15.1
Since Leaving the Military, Was There Any Time when You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	13.0	30.4
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	41.3	35.6

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
I had to wait on approval from my health insurance	N/A	N/A	8.5	13.9
I could not fit it into my schedule	N/A	N/A	2.1	0.0
I could not afford to miss work	N/A	N/A	7.5	9.9
I had to wait too long for an appointment	N/A	N/A	27.1	19.8
I had to drive too far for the medical care	N/A	N/A	3.6	12.6
Other	N/A	N/A	9.9	8.1
Do You have Health Coverage?	N/A	N/A	83.7	82.6
Overall, How Satisfied or Dissatisfied are You with the Health Care Available to You?				
Very satisfied	N/A	N/A	33.4	11.5
Somewhat satisfied	N/A	N/A	45.2	42.9
Somewhat dissatisfied	N/A	N/A	10.6	24.3
Very dissatisfied	N/A	N/A	10.8	21.3
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	7.0	34.5
Since Leaving the Military, My Children Experienced the Following or Behaved In Any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	10.9	15.2
Disruptive or problem behavior	N/A	N/A	18.7	19.0
Social withdrawal from peers	N/A	N/A	5.1	8.6
Bullying	N/A	N/A	6.8	14.6
Alcohol or drug use	N/A	N/A	2.9	0.0

(continued)

**Table 3-8. Sample Characteristics of Transition Study Participants by Resilience<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	High <sup>2</sup>	Low <sup>2</sup>	High <sup>2</sup>	Low <sup>2</sup>
Total Sample	91.3	8.7	90.0	10.0

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under baseline high resilience are the percentage of those with high resilience at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> High resilience is defined as those individuals with scores greater than 50; low is a resilience score of 50 or less.

<sup>3</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>4</sup> Minimum civilian time is 2 months.

<sup>5</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>6</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation).

Source: 2007—Status of Transitioning Military Personnel Survey

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup>**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
<b>Sample Size<sup>3</sup></b>	787.0	2638.0	212.0	848.0
Gender				
Male	81.0	86.5	80.3	86.1
Female	19.0	13.5	19.7	13.9
Race/Ethnicity				
White, non-Hispanic	60.2	61.0	61.2	61.5
African American, non-Hispanic	13.1	12.9	12.4	12.9
Hispanic	17.8	16.9	17.3	16.5
Other	8.9	9.2	9.2	9.0
Age				
25 or younger	53.5	47.8	54.4	47.5
26–34	29.4	26.6	29.7	27.1
35 or older	17.1	25.6	15.8	25.4
Family Status				
Not married	49.3	49.4	53.1	47.9
Married	50.7	50.6	46.9	52.1
Pay Grade				
E1–E9, W1–W5	96.4	92.4	97.5	92.7
O1–O6	3.6	7.6	2.5	7.3
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service	16.2	5.9	12.5	5.5
Time in Civilian Life <sup>4</sup>				
2–5 months	N/A	N/A	3.7	4.3
6–8 months	N/A	N/A	8.6	13.6
9–11 month	N/A	N/A	17.8	19.0
12–14 months	N/A	N/A	29.3	22.4
15–17 months	N/A	N/A	31.9	32.4
18+ months	N/A	N/A	8.8	8.4

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Single with Dependent Child(ren):	N/A	N/A	15.2	9.8
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	44.8	56.0
Working part-time (work fewer than 35 hours per week on average)	N/A	N/A	11.2	14.0
Working as self-employed in own business or profession	N/A	N/A	1.4	3.6
Unemployed	N/A	N/A	40.5	25.4
An unpaid worker (volunteer)	N/A	N/A	6.1	5.0
Retired	N/A	N/A	9.8	13.6
In school	N/A	N/A	41.6	40.3
A homemaker, housewife, househusband	N/A	N/A	10.8	9.2
Disabled	N/A	N/A	32.8	13.1
Working multiple jobs	N/A	N/A	3.7	5.8
Working temporary job(s)	N/A	N/A	9.7	7.2
Current personal monthly income:				
Less than \$1,000	N/A	N/A	21.2	17.5
\$1,000 to \$1,499	N/A	N/A	19.2	16.8
\$1,500 to \$1,999	N/A	N/A	14.7	15.1
\$2,000 to \$2,999	N/A	N/A	22.0	18.6
\$3,000 to \$4,999	N/A	N/A	14.9	17.3
\$5,000 or more	N/A	N/A	8.0	14.8
Are You Currently Receiving any Service-Related Disability Compensation?	N/A	N/A	59.1	42.5

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Work Stress Indicator <sup>5</sup>				
A lot	71.9	35.7	38.4	11.9
Some	20.9	35.6	18.1	29.5
A little	6.2	21.9	13.1	28.8
None	1.0	6.8	30.4	29.8
Family Stress Indicator				
A lot	47.2	21.3	59.9	18.6
Some	29.0	28.5	24.2	24.8
A little	16.0	31.0	7.6	35.3
None	7.8	19.2	8.2	21.2
Spouse Stress Indicator				
A lot	35.7	19.2	34.0	14.4
Some	19.8	22.8	24.5	17.3
A little	8.2	15.9	4.9	23.0
None	2.4	3.9	1.5	9.6
I do not have a spouse	33.9	38.3	35.2	35.7
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	22.2	6.0	33.2	5.9
Moderate	42.1	26.9	36.9	28.6
Mild	19.4	22.6	16.0	22.1
Very mild	9.9	21.0	7.0	20.8
None	6.4	23.5	6.9	22.6
MOS Current Health Perception				
Low	43.5	13.7	51.9	13.0
Medium	45.7	47.9	39.7	43.2
High	10.9	38.4	8.4	43.9

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Combat Exposure Scale Score				
Low	38.8	50.5	31.7	51.7
Medium	25.4	25.1	23.0	23.0
High	35.8	24.4	45.3	25.3
Number of Career Combat Deployments				
0.0	20.5	17.7	19.0	17.2
1.0	24.6	25.4	24.5	26.4
2.0	28.9	27.9	29.1	28.3
3 or 4	18.3	19.0	21.8	19.6
5 or more	7.7	10.0	5.6	8.4
Number of Months in Past Year on Combat Deployments				
0 months	47.9	50.8	39.8	49.8
1 to 6 months	21.6	22.9	18.5	24.0
7 to 12 months	30.4	26.4	41.7	26.2
Number of Months in Past Year on Noncombat Deployment				
0 months	56.2	55.8	58.7	55.3
1 or 2 months	16.9	16.1	15.4	17.1
3 or 4 months	12.6	14.0	13.8	14.7
5 to 12 months	14.3	14.1	12.2	12.9
Deployment Extension—Ever in Career				
Yes	31.8	28.4	32.1	27.3
Place of Deployment				
Iraq/Afghanistan	71.1	70.0	73.8	70.4
Other, Not Iraq or Afghanistan	13.4	15.7	12.7	15.7
None	15.5	14.3	13.4	13.8
Currently Have Injuries or Health Problems as a Result of My Military Experience	N/A	N/A	86.6	59.5

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Currently Have Injuries or Health Problems Not Related to My Service in the Military	N/A	N/A	18.6	11.7
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	16.9	2.6
Money Issues	N/A	N/A	68.4	38.8
Legal Issues	N/A	N/A	10.6	4.6
Smoker	49.5	38.6	37.3	27.9
Heavy Drinker	N/A	N/A	16.1	11.3
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about any Recent Changes in Your Appearance, Quality of Work, or Relationships?	N/A	N/A	22.7	7.9
Since Leaving the Military, Have You Had a Physical or Mental Condition that Caused You to Lose Your Job?	N/A	N/A	13.1	1.6
How Many Times Have You Changed Jobs since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	52.7	55.1
1 job change	N/A	N/A	17.4	22.5
More than 1 job change	N/A	N/A	29.9	22.4
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	27.6	5.1
1 or 2 times	N/A	N/A	18.6	9.3
0 times	N/A	N/A	53.8	85.6
Since Leaving the Military, Have You had Problems Sleeping Because of Nightmares?	N/A	N/A	58.2	15.0
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	88.3	34.6

(continued)



**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	38.1	6.7
Some	N/A	N/A	39.5	26.4
A little	N/A	N/A	17.4	33.6
None at all	N/A	N/A	5.0	33.3
Since Leaving the Military Did You Drive a Car or Other Vehicle when You Had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	4.3	7.3
Yes, 2, or 3 times	N/A	N/A	11.6	8.6
Yes, more than 3 times	N/A	N/A	12.9	5.0
No	N/A	N/A	71.1	79.1
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You Had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	7.4	4.0
No	N/A	N/A	92.6	96.0
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	13.3	5.6
No	N/A	N/A	86.7	94.4
Risk-Taking				
Not at all	N/A	N/A	11.5	20.6
A little	N/A	N/A	34.3	56.5
Some	N/A	N/A	31.1	19.1
A lot	N/A	N/A	23.0	3.8

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sensation-Seeking				
Not at all	N/A	N/A	9.6	6.7
A little	N/A	N/A	22.3	31.5
Some	N/A	N/A	30.1	42.1
A lot	N/A	N/A	38.0	19.7
Avoidant Coping Strategy	86.2	72.5	82.0	72.9
Problem-Oriented Coping Strategy	95.1	96.4	95.1	96.4
Spirituality Indicator				
Low	30.9	27.4	38.0	29.6
Medium	50.6	53.8	45.1	49.8
High	18.4	18.8	16.9	20.6
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	25.1	9.9	21.4	10.1
Medium	52.7	57.8	53.6	58.0
High	22.2	32.4	25.1	31.8
DRRI Post-deployment Social Support Scale (Personal Social Support)				
Low	19.2	5.2	49.5	17.6
Medium	64.7	58.1	40.0	50.6
High	16.1	36.7	10.5	31.8
Physically Active, Moderate or Vigorous at Least 3 Days/Week	61.6	68.1	52.3	65.6
Know at Least One Military Veteran to Talk to about War Experiences or Other Stressful Deployment Events	N/A	N/A	70.9	74.7
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	71.9	86.5
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	40.2	34.8

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
What Type of Group(s)? (Mark all that apply.)				
Social group	N/A	N/A	43.2	63.1
Support group	N/A	N/A	22.4	5.6
Reserve unit	N/A	N/A	18.3	12.3
Sports team	N/A	N/A	0.9	4.0
Other	N/A	N/A	35.6	33.7
Anxiety	N/A	N/A	N/A	N/A
Depression	82.7	27.5	86.5	25.6
PTSD	54.7	6.6	65.4	10.1
Substance Abuse Indicator (TICS)	57.8	41.1	43.6	24.9
Suicidal Ideation	18.9	3.8	33.2	5.5
Any Mental Health Problem <sup>6</sup>	100.0	29.4	100.0	28.7
Resilience	83.5	93.6	75.5	93.8
MOS Mental Health Scale				
Low	62.0	12.4	69.0	11.2
Medium	36.1	56.8	29.5	52.1
High	1.9	30.7	1.5	36.8
Any Activity Restriction due to Poor Mental Health Past 30 Days	64.9	22.0	75.8	27.0
Any Receipt of Mental Health Services in the Past 12 Months	50.8	24.2	57.4	20.1
Concerns for which Counseling Was Sought				
Depression	30.1	7.6	40.4	7.4
Anxiety	24.3	6.0	34.8	6.7
Family problems	18.9	7.6	12.8	5.0
Substance use problems	6.6	3.2	1.9	1.7
Anger management	17.0	3.9	27.1	3.6
Stress management	21.1	5.5	32.8	4.4
Combat/operational stress	14.2	2.5	24.8	4.6

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Other (specify)	7.6	4.6	7.1	2.8
I did not seek help from a mental health professional in the past 12 months	54.4	79.7	53.2	84.6
Feel the Need for Counseling	57.2	18.8	66.1	20.3
Prescribed Medication for Mental Health Issue in Past 12 Months	27.2	7.2	35.2	8.0
Overall, How Satisfied or Dissatisfied are You with the Quality of Health Care You Have Received since Leaving the Military?				
Very satisfied	N/A	N/A	17.1	22.8
Somewhat satisfied	N/A	N/A	32.8	34.6
Somewhat dissatisfied	N/A	N/A	16.1	9.2
Very dissatisfied	N/A	N/A	12.3	6.1
I have not received any health care since leaving the military	N/A	N/A	21.6	27.3
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	22.8	8.2
A small problem	N/A	N/A	31.6	18.4
Not a problem	N/A	N/A	45.5	73.4
Since Leaving the Military, When You Needed Care Right Away for an Illness, Injury, or Condition, How Often Did You Get Care as Soon as You Thought You Needed It?				
Always	N/A	N/A	14.5	22.6
Usually	N/A	N/A	19.7	17.8
Sometimes	N/A	N/A	31.6	15.5
Never	N/A	N/A	14.3	8.6
I have not needed health care since leaving the military.	N/A	N/A	19.9	35.5

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, Was there any Time when You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	27.1	11.2
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	37.2	41.2
I had to wait on approval from my health insurance	N/A	N/A	12.1	8.1
I could not fit it into my schedule	N/A	N/A	1.0	1.9
I could not afford to miss work	N/A	N/A	12.0	7.0
I had to wait too long for an appointment	N/A	N/A	18.4	29.3
I had to drive too far for the medical care	N/A	N/A	7.3	4.5
Other	N/A	N/A	11.9	8.0
Do You Have Health Coverage?	N/A	N/A	82.4	84.2
Overall, How Satisfied or Dissatisfied are You with the Health Care Available to You?				
Very satisfied	N/A	N/A	19.6	34.0
Somewhat satisfied	N/A	N/A	45.2	45.7
Somewhat dissatisfied	N/A	N/A	18.0	10.1
Very dissatisfied	N/A	N/A	17.2	10.1
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	30.6	4.3

(continued)

**Table 3-9. Sample Characteristics of Transition Study Participants by Anxiety Level<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, My Children Experienced the Following or Behaved In Any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	19.2	9.2
Disruptive or problem behavior	N/A	N/A	33.2	15.2
Social withdrawal from peers	N/A	N/A	13.7	3.2
Bullying	N/A	N/A	17.4	4.9
Alcohol or drug use	N/A	N/A	1.4	3.0
Total Sample	23.0	77.0	21.0	79.0

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under Baseline High Resilience are the percentage of those with high resilience at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> Yes indicates a positive score based on binary scoring of seven anxiety items from the Patient Health Questionnaire.

<sup>3</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>4</sup> Minimum civilian time is 2 months.

<sup>5</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>6</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation).

Source: 2007—Status of Transitioning Military Personnel Survey

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sample Size <sup>3</sup>	1,342.0	1,963.0	380.0	627.0
Gender				
Male	83.6	86.0	83.6	85.2
Female	16.4	14.0	16.4	14.8
Race/Ethnicity				
White, non-Hispanic	59.1	61.7	58.2	63.4
African American, non-Hispanic	13.1	12.9	14.7	11.6
Hispanic	18.1	16.6	15.9	16.7
Other	9.7	8.8	11.1	8.3
Age				
25 or younger	54.3	45.9	50.4	49.4
26–34	28.4	26.9	30.6	25.3
35 or older	17.3	27.2	19.0	25.2
Family Status				
Not married	52.8	47.7	54.8	46.5
Married	47.2	52.3	45.2	53.5
Pay Grade				
E1–E9, W1–W5	95.9	91.9	97.0	92.1
O1–O6	4.1	8.1	3.0	7.9
Disability or Separation for a Physical/ Mental Condition that Interferes with Military Service	13.0	5.3	11.2	5.1
Time in Civilian Life <sup>4</sup>				
2–5 months	N/A	N/A	3.2	4.8
6–8 months	N/A	N/A	9.1	14.4
9–11 month	N/A	N/A	16.6	19.3
12–14 months	N/A	N/A	27.6	21.5
15–17 months	N/A	N/A	35.0	31.4
18+ months	N/A	N/A	8.5	8.6

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Single with Dependent Child(ren):	N/A	N/A	16.1	7.9
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	50.1	55.3
Working part-time (work fewer than 35 hours per week on average)	N/A	N/A	10.5	15.3
Working as self-employed in own business or profession	N/A	N/A	2.7	3.6
Unemployed	N/A	N/A	35.8	24.7
An unpaid worker (volunteer)	N/A	N/A	4.7	5.5
Retired	N/A	N/A	10.9	13.6
In school	N/A	N/A	37.6	42.8
A homemaker, housewife, househusband	N/A	N/A	9.9	9.3
Disabled	N/A	N/A	25.6	12.4
Working multiple jobs	N/A	N/A	5.6	5.6
Working temporary job(s)	N/A	N/A	10.4	6.6
Current personal monthly income:				
Less than \$1,000	N/A	N/A	18.9	18.8
\$1,000 to \$1,499	N/A	N/A	19.8	16.5
\$1,500 to \$1,999	N/A	N/A	13.6	15.8
\$2,000 to \$2,999	N/A	N/A	24.5	15.9
\$3,000 to \$4,999	N/A	N/A	15.8	17.0
\$5,000 or more	N/A	N/A	7.4	16.1
Are You Currently Receiving any Service-Related Disability Compensation?	N/A	N/A	51.0	43.0
Work Stress Indicator <sup>5</sup>				
A lot	62.9	32.5	31.2	9.6
Some	26.3	35.9	29.8	26.9
A little	9.6	23.8	12.9	32.1
None	1.2	7.8	26.2	31.4

(continued)



**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Family Stress Indicator				
A lot	43.4	17.2	52.2	13.0
Some	30.5	28.0	27.1	24.0
A little	17.4	34.0	12.8	39.2
None	8.8	20.8	7.9	23.8
Spouse Stress Indicator				
A lot	31.4	18.0	31.2	11.3
Some	20.8	22.7	20.8	17.9
A little	8.8	17.1	7.5	24.8
None	2.3	4.2	2.7	10.5
I do not have a spouse	36.8	38.0	37.9	35.4
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	14.7	6.5	22.5	5.3
Moderate	38.5	25.7	34.3	28.9
Mild	22.4	21.8	19.8	21.6
Very mild	14.4	21.3	13.5	20.2
None	10.1	24.8	9.8	23.9
MOS Current Health Perception				
Low	34.0	11.8	41.5	9.5
Medium	51.5	45.7	46.5	41.2
High	14.4	42.5	12.0	49.3
Combat Exposure Scale score				
Low	41.5	51.9	40.4	50.5
Medium	25.8	25.2	21.3	24.8
High	32.7	22.9	38.3	24.7

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Number of Career Combat Deployments				
0.0	20.7	16.8	19.7	16.6
1.0	25.9	24.7	23.9	27.8
2.0	28.1	28.5	28.8	28.8
3 or 4	17.6	19.7	21.5	18.5
5 or more	7.6	10.4	6.1	8.3
Number of Months in Past Year on Combat Deployments				
0 months	47.7	51.4	48.1	47.2
1 to 6 months	22.6	22.9	19.9	24.0
7 to 12 months	29.7	25.6	32.0	28.7
Number of Months in Past Year on Noncombat Deployment				
0 months	55.2	56.4	58.0	54.0
1 or 2 months	15.4	16.6	14.4	18.8
3 or 4 months	13.7	13.7	14.1	14.9
5 to 12 months	15.7	13.3	13.5	12.3
Deployment Extension—Ever in Career				
Yes	28.4	29.7	28.9	28.1
Place of Deployment				
Iraq/Afghanistan	68.6	71.7	72.7	69.5
Other, Not Iraq or Afghanistan	14.9	15.1	12.2	17.2
None	16.5	13.2	15.1	13.4
Currently Have Injuries or Health Problems as a Result of My Military Experience	N/A	N/A	79.4	58.1
Currently Have Injuries or Health Problems Not Related to My Service in the Military	N/A	N/A	19.2	9.3
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	12.6	1.6
Money Issues	N/A	N/A	63.1	35.6

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Legal Issues	N/A	N/A	10.6	3.0
Smoker	48.8	36.4	36.4	26.2
Heavy Drinker	N/A	N/A	15.7	10.0
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about any Recent Changes in Your Appearance, Quality of Work, or Relationships?	N/A	N/A	23.8	3.8
Since Leaving the Military, Have You had a Physical or Mental Condition that Caused You to Lose Your Job?	N/A	N/A	9.7	0.5
How Many Times Have You Changed Jobs since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	48.9	57.8
1 job change	N/A	N/A	19.3	22.4
More than 1 job change	N/A	N/A	31.9	19.8
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	22.4	2.7
1 or 2 times	N/A	N/A	17.0	8.3
0 times	N/A	N/A	60.6	89.0
Since Leaving the Military, Have You had Problems Sleeping Because of Nightmares?	N/A	N/A	44.4	12.3
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	77.9	27.9
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	30.3	2.9
Some	N/A	N/A	40.4	24.0
A little	N/A	N/A	21.1	36.4
None at all	N/A	N/A	8.2	36.7

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military Did You Drive a Car or Other Vehicle when You had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	4.6	8.3
Yes, 2 or 3 times	N/A	N/A	13.2	7.0
Yes, more than 3 times	N/A	N/A	11.8	3.5
No	N/A	N/A	70.3	81.2
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	7.9	3.0
No	N/A	N/A	92.1	97.0
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	9.9	5.5
No	N/A	N/A	90.1	94.5
Risk-Taking				
Not at all	N/A	N/A	12.9	21.8
A little	N/A	N/A	42.4	56.7
Some	N/A	N/A	30.4	17.6
A lot	N/A	N/A	14.2	3.9
Sensation-Seeking				
Not at all	N/A	N/A	8.0	6.6
A little	N/A	N/A	27.1	30.1
Some	N/A	N/A	35.5	43.1
A lot	N/A	N/A	29.4	20.1
Avoidant Coping Strategy	85.1	69.9	79.8	73.6
Problem-Oriented Coping Strategy	94.9	96.9	94.8	96.7

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Spirituality Indicator				
Low	30.6	26.7	35.4	29.1
Medium	53.0	53.4	47.5	49.9
High	16.4	19.9	17.1	20.9
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	21.9	8.0	17.4	10.2
Medium	58.1	56.3	57.2	58.5
High	20.0	35.6	25.4	31.4
DRRI Post-deployment Social Support Scale (Personal Social Support)				
Low	16.4	3.2	47.7	11.1
Medium	69.3	54.8	43.8	52.5
High	14.3	42.0	8.6	36.4
Physically Active, Moderate or Vigorous at Least 3 Days/Week	64.1	68.1	56.6	66.1
Know at Least One Military Veteran to Talk to about War Experiences or Other Stressful Deployment Events	N/A	N/A	67.4	77.3
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	75.8	87.4
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	30.3	39.1
What Type of Group(s)? (Mark all that apply.)				
Social group	N/A	N/A	48.0	61.9
Support group	N/A	N/A	20.9	3.9
Reserve unit	N/A	N/A	8.3	16.4
Sports team	N/A	N/A	1.1	4.4
Other	N/A	N/A	38.3	32.8
Anxiety	48.2	6.9	48.7	4.8
Depression	N/A	N/A	N/A	N/A

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
PTSD	41.7	2.0	53.8	2.7
Substance Abuse Indicator (TICS)	55.6	38.6	40.7	22.3
Suicidal Ideation	16.8	1.2	27.7	1.8
Any Mental Health Problem <sup>6</sup>	100.0	9.0	100.0	8.3
Resilience	83.2	96.4	76.5	97.8
MOS Mental Health Scale				
Low	53.9	4.3	58.0	2.7
Medium	44.4	59.1	39.4	54.6
High	1.7	36.6	2.5	42.8
Any Activity Restriction due to Poor Mental Health Past 30 Days	60.0	14.3	68.7	19.7
Any Receipt of Mental Health Services in the Past 12 Months	44.9	21.3	49.9	15.1
Concerns for which Counseling Was Sought				
Depression	25.6	4.5	32.1	3.5
Anxiety	20.1	4.1	27.5	3.8
Family problems	16.7	6.0	12.6	3.1
Substance use problems	6.6	2.2	3.3	0.9
Anger management	13.5	2.6	19.6	1.8
Stress management	16.9	4.2	22.7	2.7
Combat/operational stress	10.1	1.9	18.8	2.8
Other (specify)	6.5	4.5	5.5	2.6
I did not seek help from a mental health professional in the past 12 months	59.3	83.0	57.7	90.0
Feel the Need for Counseling	50.4	13.2	59.3	12.8
Prescribed Medication for Mental Health Issue in Past 12 Months	21.8	5.6	28.3	5.0

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Overall, How Satisfied or Dissatisfied are You with the Quality of Health Care You Have Received since Leaving the Military?				
Very satisfied	N/A	N/A	14.4	24.9
Somewhat satisfied	N/A	N/A	35.7	34.1
Somewhat dissatisfied	N/A	N/A	14.2	8.5
Very dissatisfied	N/A	N/A	12.7	4.2
I have not received any health care since leaving the military	N/A	N/A	23.0	28.2
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	18.7	6.7
A small problem	N/A	N/A	29.4	16.9
Not a problem	N/A	N/A	51.9	76.3
Since Leaving the Military, when You Needed Care Right Away for an Illness, Injury, or Condition, How Often did You Get Care As Soon As You Thought You Needed It?				
Always	N/A	N/A	16.0	23.1
Usually	N/A	N/A	20.0	17.3
Sometimes	N/A	N/A	27.6	13.8
Never	N/A	N/A	13.6	8.1
I have not needed health care since leaving the military	N/A	N/A	22.8	37.7
Since Leaving the Military, was there Any Time when You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	22.5	10.3
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	48.8	28.0

(continued)

**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
I had to wait on approval from my health insurance	N/A	N/A	8.3	11.6
I could not fit it into my schedule	N/A	N/A	1.7	1.5
I could not afford to miss work	N/A	N/A	5.4	11.6
I had to wait too long for an appointment	N/A	N/A	19.2	34.1
I had to drive too far for the medical care	N/A	N/A	8.1	2.2
Other	N/A	N/A	8.5	10.9
Do You have Health Coverage?	N/A	N/A	83.3	84.2
Overall, How Satisfied or Dissatisfied are You with the Health Care Available to You?				
Very satisfied	N/A	N/A	20.3	36.5
Somewhat satisfied	N/A	N/A	45.1	45.9
Somewhat dissatisfied	N/A	N/A	18.0	8.8
Very dissatisfied	N/A	N/A	16.5	8.8
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	22.5	2.1
Since Leaving the Military, My Children Experienced the Following or Behaved In Any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	16.9	8.3
Disruptive or problem behavior	N/A	N/A	29.6	13.5
Social withdrawal from peers	N/A	N/A	9.3	3.3
Bullying	N/A	N/A	15.7	2.9
Alcohol or drug use	N/A	N/A	3.0	2.7

(continued)



**Table 3-10. Sample Characteristics of Transition Study Participants by Depression<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Total Sample	40.6	59.4	38.9	61.1

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under Baseline High Resilience are the percentages of those with high resilience at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> Yes means the individual met or exceeded the standard cut-off (16) for the CES-D scale.

<sup>3</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>4</sup> Minimum civilian time is 2 months.

<sup>5</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>6</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation).

Source: 2007—Status of Transitioning Military Personnel Survey

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup>**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sample Size <sup>3</sup>	1,541.0	1,889.0	290.0	775.0
Gender				
Male	88.8	82.3	90.1	82.9
Female	11.2	17.7	9.9	17.1
Race/Ethnicity				
White, non-Hispanic	63.7	58.6	63.9	60.1
African American, non-Hispanic	10.0	15.3	8.0	14.7
Hispanic	18.1	16.1	19.3	15.9
Other	8.2	10.0	8.7	9.3
Age				
25 or younger	58.9	41.3	57.2	46.0
26–34	26.6	27.7	29.0	26.9
35 or older	14.5	31.0	13.8	27.1
Family Status				
Not married	58.2	42.2	60.4	44.5
Married	41.8	57.8	39.6	55.5
Pay Grade				
E1–E9, W1–W5	94.8	92.2	96.1	92.9
O1–O6	5.2	7.8	3.9	7.1
Disability or Separation for a Physical/ Mental Condition that Interferes with Military Service	7.7	8.6	9.0	6.4
Time in Civilian Life <sup>4</sup>				
2–5 months	N/A	N/A	2.1	5.2
6–8 months	N/A	N/A	9.2	13.7
9–11 month	N/A	N/A	13.6	21.0
12–14 months	N/A	N/A	28.5	21.7
15–17 months	N/A	N/A	37.5	30.3
18+ months	N/A	N/A	9.2	8.1

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Single with Dependent Child(ren):	N/A	N/A	11.5	10.8
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	53.3	54.1
Working part-time (work fewer than 35 hours per week on average)	N/A	N/A	13.3	13.2
Working as self-employed in own business or profession	N/A	N/A	1.6	3.8
Unemployed	N/A	N/A	29.5	28.0
An unpaid worker (volunteer)	N/A	N/A	4.0	5.7
Retired	N/A	N/A	8.5	14.5
In school	N/A	N/A	44.0	39.5
A homemaker, housewife, househusband	N/A	N/A	7.4	10.3
Disabled	N/A	N/A	19.3	16.2
Working multiple jobs	N/A	N/A	6.7	4.7
Working temporary job(s)	N/A	N/A	11.1	6.1
Current personal monthly income:				
Less than \$1,000	N/A	N/A	18.8	18.2
\$1,000 to \$1,499	N/A	N/A	19.2	16.8
\$1,500 to \$1,999	N/A	N/A	17.3	13.9
\$2,000 to \$2,999	N/A	N/A	17.2	20.0
\$3,000 to \$4,999	N/A	N/A	18.1	16.3
\$5,000 or more	N/A	N/A	9.3	14.9
Are You Currently Receiving Any Service-Related Disability Compensation?	N/A	N/A	43.1	46.8

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Work Stress Indicator <sup>5</sup>				
A lot	51.4	37.8	24.8	14.1
Some	30.4	33.8	27.4	27.4
A little	14.1	21.7	21.1	27.1
None	4.1	6.7	26.6	31.4
Family Stress Indicator				
A lot	32.1	23.2	40.8	21.9
Some	27.5	29.6	26.4	24.0
A little	24.6	30.1	20.2	33.2
None	15.8	17.0	12.6	20.9
Spouse Stress Indicator				
A lot	23.7	22.3	27.3	14.9
Some	19.8	24.0	17.3	19.6
A little	9.9	17.6	10.8	22.5
None	2.8	4.1	3.1	9.8
I do not have a spouse	43.7	32.0	41.6	33.2
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	10.3	9.1	11.5	11.5
Moderate	30.9	29.9	31.9	30.2
Mild	22.7	21.0	24.8	19.2
Very mild	18.5	18.6	15.1	18.8
None	17.7	21.4	16.7	20.3
MOS Current Health Perception				
Low	22.0	19.1	28.8	18.3
Medium	48.2	46.8	41.7	42.7
High	29.8	34.0	29.6	39.0

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Combat Exposure Scale Score				
Low	43.6	51.6	39.8	50.7
Medium	25.3	25.0	22.2	23.6
High	31.1	23.4	38.0	25.7
Number of Career Combat Deployments				
0.0	16.7	19.6	18.0	17.3
1.0	26.7	24.1	26.0	25.9
2.0	31.5	25.6	32.8	26.8
3 or 4	18.1	19.4	16.7	21.6
5 or more	7.1	11.4	6.6	8.4
Number of Months in Past Year on Combat Deployments				
0 months	42.5	56.3	39.8	50.4
1 to 6 months	25.1	20.5	23.0	23.3
7 to 12 months	32.4	23.2	37.1	26.3
Number of Months in Past Year on Noncombat Deployment				
0 months	51.1	59.9	53.8	56.9
1 or 2 months	18.1	14.7	15.5	17.0
3 or 4 months	14.4	13.1	16.4	13.8
5 to 12 months	16.5	12.3	14.3	12.3
Deployment Extension—Ever in Career				
Yes	30.3	28.2	32.9	26.5
Place of Deployment				
Iraq/Afghanistan	73.3	67.9	73.6	70.0
Other, Not Iraq or Afghanistan	13.7	16.4	12.9	16.5
None	13.0	15.7	13.5	13.6

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Currently Have Injuries or Health Problems as a Result of my Military Experience	N/A	N/A	66.8	64.3
Currently Have Injuries or Health Problems Not Related to my Service in the Military	N/A	N/A	14.0	12.5
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	8.5	4.3
Money Issues	N/A	N/A	53.2	41.7
Legal Issues	N/A	N/A	11.4	3.6
Smoker	51.8	32.2	41.4	25.1
Heavy Drinker	N/A	N/A	27.1	6.5
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about any Recent Changes in Your Appearance, Quality of Work, or Relationships?	N/A	N/A	16.6	8.5
Since Leaving the Military, Have You had a Physical or Mental Condition that Caused You to Lose your Job?	N/A	N/A	5.8	3.4
How Many Times Have You Changed Jobs Since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	43.0	59.2
1 job change	N/A	N/A	23.2	21.0
More than 1 job change	N/A	N/A	33.9	19.9
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	16.2	7.2
1 or 2 times	N/A	N/A	14.1	9.9
0 times	N/A	N/A	69.7	83.0
Since Leaving the Military, Have You had Problems Sleeping because of Nightmares?	N/A	N/A	36.0	18.5

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	64.5	37.6
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	17.8	11.3
Some	N/A	N/A	38.1	25.5
A little	N/A	N/A	26.8	31.6
None at all	N/A	N/A	17.3	31.6
Since Leaving the Military Did You Drive a Car or Other Vehicle when You had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	12.0	4.6
Yes, 2 or 3 times	N/A	N/A	21.0	4.5
Yes, more than 3 times	N/A	N/A	18.0	1.8
No	N/A	N/A	49.1	89.1
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	11.6	1.7
No	N/A	N/A	88.4	98.3
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	10.9	5.7
No	N/A	N/A	89.1	94.3
Risk-Taking				
Not at all	N/A	N/A	8.7	22.8
A little	N/A	N/A	43.2	55.3
Some	N/A	N/A	35.6	16.2
A lot	N/A	N/A	12.5	5.7

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sensation-Seeking				
Not at all	N/A	N/A	4.2	8.7
A little	N/A	N/A	19.0	33.7
Some	N/A	N/A	45.1	37.6
A lot	N/A	N/A	31.7	20.0
Avoidant Coping Strategy	85.9	67.4	84.3	71.1
Problem-Oriented Coping Strategy	95.5	96.6	94.0	97.0
Spirituality Indicator				
Low	33.1	24.1	36.1	29.6
Medium	54.9	51.7	51.7	47.6
High	12.0	24.2	12.2	22.8
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	15.5	11.6	13.4	11.9
Medium	58.8	54.7	61.2	55.3
High	25.7	33.6	25.4	32.8
DRRI Post-deployment Social Support Scale (Personal Social Support)				
Low	10.2	6.9	29.7	22.1
Medium	63.1	56.6	54.4	45.8
High	26.7	36.5	15.9	32.1
Physically Active, Moderate or Vigorous at Least 3 Days/Week	69.1	64.6	59.6	64.1
Know at Least One Military Veteran to Talk to about War Experiences or Other Stressful Deployment Events	N/A	N/A	70.5	75.1
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	84.2	83.3
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	33.7	36.8

(continued)



**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
What Type of Group(s)? (Mark all that apply.)				
Social group	N/A	N/A	55.7	59.6
Support group	N/A	N/A	13.5	7.5
Reserve unit	N/A	N/A	14.0	13.3
Sports team	N/A	N/A	1.2	4.1
Other	N/A	N/A	30.0	36.3
Anxiety	29.5	17.6	31.7	16.6
Depression	49.6	33.0	53.6	32.6
PTSD	24.6	11.9	35.5	15.9
Substance Abuse Indicator (TICS)	N/A	N/A	N/A	N/A
Suicidal Ideation	9.9	5.1	21.6	7.0
Any Mental Health Problem <sup>6</sup>	55.4	39.1	61.3	37.6
Resilience	88.6	93.5	86.9	91.2
MOS Mental Health Scale				
Low	31.2	17.9	36.4	18.3
Medium	50.8	53.1	49.0	46.6
High	18.1	29.0	14.6	35.1
Any Activity Restriction due to Poor Mental Health Past 30 Days	41.0	24.4	53.9	30.5
Any Receipt of Mental Health Services in the Past 12 Months	34.6	26.9	40.0	22.5
Concerns for which Counseling Was Sought				
Depression	15.7	10.3	22.5	10.7
Anxiety	12.5	8.4	20.0	9.4
Family problems	10.7	9.9	10.3	5.1
Substance use problems	7.7	1.1	4.5	0.6
Anger management	9.6	4.7	14.2	6.0
Stress management	11.0	7.6	15.7	7.9

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Combat/operational stress	6.9	3.9	15.3	5.9
Other (specify)	5.4	5.2	4.7	3.2
I did not seek help from a mental health professional in the past 12 months	70.1	76.8	67.5	82.5
Feel the Need for Counseling	33.3	22.8	41.5	24.9
Prescribed Medication for Mental Health Issue in Past 12 Months	12.5	11.1	19.2	11.1
Overall, How Satisfied or Dissatisfied are You with the Quality of Health Care You have Received since Leaving the Military?				
Very satisfied	N/A	N/A	17.2	23.3
Somewhat satisfied	N/A	N/A	32.9	35.1
Somewhat dissatisfied	N/A	N/A	14.3	9.4
Very dissatisfied	N/A	N/A	9.1	6.7
I have not received any health care since leaving the military	N/A	N/A	26.6	25.5
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	18.2	8.5
A small problem	N/A	N/A	23.1	20.5
Not a problem	N/A	N/A	58.7	71.0
Since Leaving the Military, when You Needed Care Right Away for An Illness, Injury, or Condition, How Often did You Get Care as Soon as You Thought You Needed It?				
Always	N/A	N/A	17.9	22.0
Usually	N/A	N/A	16.1	19.1
Sometimes	N/A	N/A	23.4	17.1
Never	N/A	N/A	14.7	7.7

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
I have not needed health care since leaving the military.	N/A	N/A	27.9	34.0
Since Leaving the Military, was there Any Time when You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	20.4	12.0
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	44.5	36.4
I had to wait on approval from my health insurance	N/A	N/A	11.4	8.4
I could not fit it into my schedule	N/A	N/A	0.0	2.6
I could not afford to miss work	N/A	N/A	8.8	9.3
I had to wait too long for an appointment	N/A	N/A	21.7	27.4
I had to drive too far for the medical care	N/A	N/A	7.0	4.6
Other	N/A	N/A	6.5	11.3
Do You Have Health Coverage?	N/A	N/A	80.6	85.1
Overall, How Satisfied or Dissatisfied are You with the Health Care Available to You?				
Very satisfied	N/A	N/A	24.8	33.4
Somewhat satisfied	N/A	N/A	41.7	47.2
Somewhat dissatisfied	N/A	N/A	15.7	10.4
Very dissatisfied	N/A	N/A	17.8	9.0
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	15.3	7.2

(continued)

**Table 3-11. Sample Characteristics of Transition Study Participants by Substance Abuse<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, My Children Experienced the Following or Behaved in Any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	16.7	9.7
Disruptive or problem behavior	N/A	N/A	20.7	18.4
Social withdrawal from peers	N/A	N/A	8.7	4.4
Bullying	N/A	N/A	12.3	6.1
Alcohol or drug use	N/A	N/A	6.0	1.7
Total Sample	44.9	55.1	28.7	71.3

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under Baseline High Resilience are the percentage of those with high resilience at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> Yes indicates individuals having a score of 1 or 2 on the Two Item Conjoint Screen (TICS) measure for alcohol and drug abuse.

<sup>3</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>4</sup> Minimum civilian time is 2 months.

<sup>5</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>6</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD or suicidal ideation).

Source: 2007—Status of Transitioning Military Personnel Survey

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sample Size <sup>3</sup>	603.0	2813.0	211.0	823.0
Gender				
Male	84.9	85.4	85.8	84.8
Female	15.1	14.6	14.2	15.2
Race/Ethnicity				
White, non-Hispanic	56.8	61.7	58.5	63.1
African American, non-Hispanic	15.1	12.6	11.8	12.9
Hispanic	18.3	16.8	18.4	15.6
Other	9.9	8.9	11.3	8.4
Age				
25 or younger	57.5	47.2	50.8	48.2
26–34	28.3	27.1	33.0	26.2
35 or older	14.2	25.7	16.2	25.6
Family Status				
Not married	52.6	48.7	58.1	46.4
Married	47.4	51.3	41.9	53.6
Pay Grade				
E1–E9, W1–W5	96.7	92.6	97.4	92.7
O1–O6	3.3	7.4	2.6	7.3
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service	17.9	6.2	12.9	5.8
Time in Civilian Life <sup>4</sup>				
2–5 months	N/A	N/A	3.0	4.5
6–8 months	N/A	N/A	10.0	13.4
9–11 month	N/A	N/A	15.6	19.0
12–14 months	N/A	N/A	33.4	21.7
15–17 months	N/A	N/A	30.4	32.7
18+ months	N/A	N/A	7.6	8.7

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Single with Dependent Child(ren):	N/A	N/A	17.8	8.9
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	49.8	54.1
Working part-time (work fewer than 35 hours per week on average)	N/A	N/A	9.9	14.3
Working as self-employed in own business or profession	N/A	N/A	2.2	3.4
Unemployed	N/A	N/A	37.0	26.7
An unpaid worker (volunteer)	N/A	N/A	5.0	5.3
Retired	N/A	N/A	11.2	13.3
In school	N/A	N/A	34.2	42.2
A homemaker, housewife, househusband	N/A	N/A	7.8	10.1
Disabled	N/A	N/A	30.2	13.6
Working multiple jobs	N/A	N/A	4.4	5.3
Working temporary job(s)	N/A	N/A	10.6	6.9
Current personal monthly income:				
Less than \$1,000	N/A	N/A	20.4	18.0
\$1,000 to \$1,499	N/A	N/A	17.7	17.5
\$1,500 to \$1,999	N/A	N/A	14.0	15.3
\$2,000 to \$2,999	N/A	N/A	22.5	17.6
\$3,000 to \$4,999	N/A	N/A	18.1	16.6
\$5,000 or more	N/A	N/A	7.2	15.1
Are You Currently Receiving any Service-Related Disability Compensation?	N/A	N/A	58.6	42.7

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Work Stress Indicator <sup>5</sup>				
A lot	71.6	38.1	39.7	11.5
Some	20.4	34.7	27.0	27.1
A little	6.7	20.9	10.5	29.2
None	1.3	6.4	22.8	32.2
Family Stress Indicator				
A lot	50.6	22.3	60.3	18.3
Some	29.4	28.5	23.1	24.8
A little	13.7	30.6	9.5	35.1
None	6.3	18.6	7.1	21.7
Spouse Stress Indicator				
A lot	33.7	20.7	35.2	14.1
Some	19.1	22.7	16.9	19.2
A little	8.4	15.4	5.4	23.0
None	3.0	3.6	2.2	9.4
I do not have a spouse	35.8	37.6	40.3	34.3
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	23.3	6.7	31.7	5.9
Moderate	40.9	28.1	36.9	28.0
Mild	18.1	22.6	18.2	22.0
Very mild	10.5	20.2	7.2	21.2
None	7.3	22.4	6.0	22.9
MOS Current Health Perception				
Low	48.3	14.3	53.4	12.2
Medium	40.9	48.9	41.3	42.5
High	10.7	36.8	5.3	45.3

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Combat Exposure Scale Score				
Low	34.2	51.0	27.1	53.1
Medium	21.0	25.9	25.3	22.5
High	44.9	23.1	47.6	24.4
Number of Career Combat Deployments				
0.0	20.7	17.7	16.3	18.1
1.0	23.9	25.6	22.8	27.0
2.0	30.6	27.6	33.9	26.7
3 or 4	18.0	18.9	20.3	19.9
5 or more	6.7	10.1	6.7	8.2
Number of Months in Past Year on Combat Deployments				
0 months	48.2	50.6	41.8	49.4
1 to 6 months	19.3	23.3	18.1	24.4
7 to 12 months	32.5	26.1	40.1	26.2
Number of Months in Past Year on Noncombat Deployment				
0 months	58.2	55.6	57.4	55.4
1 or 2 months	14.4	16.5	16.7	17.3
3 or 4 months	11.2	14.1	12.5	14.9
5 to 12 months	16.1	13.7	13.3	12.3
Deployment Extension—Ever in Career				
Yes	30.7	28.9	33.3	26.5
Place of Deployment				
Iraq/Afghanistan	69.9	70.3	78.0	69.4
Other, Not Iraq or Afghanistan	13.6	15.6	9.2	16.9
None	16.5	14.1	12.9	13.7
Currently Have Injuries or Health Problems as a Result of My Military Experience	N/A	N/A	86.6	59.2

(continued)



**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Currently Have Injuries or Health Problems Not Related to My Service in the Military	N/A	N/A	18.5	11.4
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	15.5	2.8
Money Issues	N/A	N/A	67.2	38.5
Legal Issues	N/A	N/A	11.8	4.0
Smoker	52.0	38.7	37.3	27.8
Heavy Drinker	N/A	N/A	19.4	10.7
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about Any Recent Changes in Your Appearance, Quality of Work, or Relationships?	N/A	N/A	27.3	6.3
Since Leaving the Military, Have You had a Physical or Mental Condition that Caused You to Lose Your Job?	N/A	N/A	12.6	1.3
How Many Times Have You Changed Jobs since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	46.2	57.1
1 job change	N/A	N/A	21.5	21.9
More than 1 job change	N/A	N/A	32.3	21.0
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	26.8	4.7
1 or 2 times	N/A	N/A	21.0	8.2
0 times	N/A	N/A	52.2	87.1
Since Leaving the Military, Have You had Problems Sleeping because of Nightmares?	N/A	N/A	57.6	14.6
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	86.4	34.3

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	42.7	5.2
Some	N/A	N/A	41.1	26.0
A little	N/A	N/A	11.8	35.2
None at all	N/A	N/A	4.5	33.7
Since Leaving the Military Did You Drive a Car or Other Vehicle when You had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	5.8	7.0
Yes, 2 or 3 times	N/A	N/A	11.5	8.8
Yes, more than 3 times	N/A	N/A	11.6	5.2
No	N/A	N/A	71.1	79.1
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	10.4	3.1
No	N/A	N/A	89.6	96.9
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	12.1	5.7
No	N/A	N/A	87.9	94.3
Risk-Taking				
Not at all	N/A	N/A	8.0	21.6
A little	N/A	N/A	35.4	56.5
Some	N/A	N/A	35.7	17.8
A lot	N/A	N/A	20.9	4.2

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sensation-Seeking				
Not at all	N/A	N/A	9.8	6.4
A little	N/A	N/A	24.5	30.8
Some	N/A	N/A	31.2	43.1
A lot	N/A	N/A	34.4	19.7
Avoidant Coping Strategy	88.0	73.0	80.7	73.2
Problem-Oriented Coping Strategy	93.2	96.8	94.0	96.6
Spirituality Indicator				
Low	28.6	28.0	35.9	30.4
Medium	54.4	52.8	47.7	48.8
High	16.9	19.2	16.4	20.8
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	25.1	11.0	19.6	10.6
Medium	53.8	57.1	52.3	57.9
High	21.0	31.9	28.1	31.5
DRRI Post-deployment Social Support Scale (Personal Social Support)				
Low	22.4	5.4	58.0	14.9
Medium	67.7	57.8	35.6	51.8
High	10.0	36.8	6.4	33.3
Physically Active, Moderate or Vigorous at Least 3 Days/Week	61.8	67.7	52.0	65.8
Know at Least One Military Veteran to Talk to about War Experiences or Other Stressful Deployment Events	N/A	N/A	69.3	75.0
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	73.4	86.2
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	33.6	36.7

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
What Type of Group(s)? (Mark all that apply.)				
Social group	N/A	N/A	43.0	62.3
Support group	N/A	N/A	26.3	5.0
Reserve unit	N/A	N/A	8.8	14.9
Sports team	N/A	N/A	2.5	3.5
Other	N/A	N/A	42.7	32.3
Anxiety	71.3	12.6	62.9	9.1
Depression	93.3	28.9	92.7	23.0
PTSD	N/A	N/A	N/A	N/A
Substance Abuse Indicator (TICS)	62.8	41.2	47.5	23.7
Suicidal Ideation	24.9	3.6	36.4	4.5
Any Mental Health Problem <sup>6</sup>	100.0	34.3	100.0	27.6
Resilience	79.2	93.9	71.1	95.3
MOS Mental Health Scale				
Low	72.0	13.5	77.0	8.7
Medium	27.5	57.3	20.2	54.8
High	0.5	29.2	2.8	36.5
Any Activity Restriction due to Poor Mental Health Past 30 Days	74.7	22.8	78.2	26.1
Any Receipt of Mental Health Services in the Past 12 Months	57.8	24.6	63.3	18.0
Concerns for which Counseling Was Sought				
Depression	37.8	7.4	43.5	6.2
Anxiety	30.9	5.9	40.9	4.8
Family problems	22.4	7.7	13.9	4.6
Substance use problems	8.3	3.1	3.6	1.2
Anger management	21.4	3.8	29.9	2.6
Stress management	26.2	5.5	32.9	4.1
Combat/operational stress	16.7	2.7	31.6	2.5

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>**  
(continued)

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Other (specify)	7.6	4.8	5.1	3.3
I did not seek help from a mental health professional in the past 12 months	47.7	79.3	46.9	86.6
Feel the Need for Counseling	64.3	19.7	73.0	18.0
Prescribed Medication for Mental Health Issue in Past 12 Months	33.3	7.3	38.2	6.8
Overall, How Satisfied or Dissatisfied are You with the Quality of Health Care You Have Received Since Leaving the Military?				
Very satisfied	N/A	N/A	16.9	23.5
Somewhat satisfied	N/A	N/A	37.3	32.5
Somewhat dissatisfied	N/A	N/A	13.5	9.5
Very dissatisfied	N/A	N/A	15.0	5.5
I have not received any health care since leaving the military	N/A	N/A	17.3	29.0
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	23.1	7.8
A small problem	N/A	N/A	30.4	18.0
Not a problem	N/A	N/A	46.5	74.1
Since Leaving the Military, when You Needed Care Right Away for an Illness, Injury, or Condition, How Often did You Get Care as soon as You Thought You Needed It?				
Always	N/A	N/A	14.6	22.8
Usually	N/A	N/A	22.7	16.8
Sometimes	N/A	N/A	30.0	15.5
Never	N/A	N/A	15.8	8.3
I have not needed health care since leaving the military.	N/A	N/A	16.9	36.6

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, was there Any Time when You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	25.4	11.4
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	39.8	40.2
I had to wait on approval from my health insurance	N/A	N/A	13.1	8.0
I could not fit it into my schedule	N/A	N/A	0.0	2.6
I could not afford to miss work	N/A	N/A	8.6	8.0
I had to wait too long for an appointment	N/A	N/A	20.4	27.1
I had to drive too far for the medical care	N/A	N/A	10.2	3.1
Other	N/A	N/A	7.8	11.0
Do You have Health Coverage?	N/A	N/A	85.6	82.9
Overall, How Satisfied or Dissatisfied are You with the Health Care Available to You?				
Very satisfied	N/A	N/A	23.4	33.5
Somewhat satisfied	N/A	N/A	43.8	44.9
Somewhat dissatisfied	N/A	N/A	15.9	11.0
Very dissatisfied	N/A	N/A	16.9	10.6
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	32.2	3.4

(continued)

**Table 3-12. Sample Characteristics of Transition Study Participants by PTSD<sup>1</sup>  
(continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, My Children Experienced the Following or Behaved in Any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	19.4	9.1
Disruptive or problem behavior	N/A	N/A	34.2	14.5
Social withdrawal from peers	N/A	N/A	11.5	3.7
Bullying	N/A	N/A	15.9	5.3
Alcohol or drug use	N/A	N/A	0.7	3.2
Total Sample	17.7	82.3	21.6	78.4

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under Baseline High Resilience are the percentage of those with high resilience at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> Yes indicates a score greater than or equal to 50 on PTSD Checklist of the Department of Veterans—civilian version (PCL-C).

<sup>3</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>4</sup> Minimum civilian time is 2 months.

<sup>5</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>6</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation).

Source: 2007—Status of Transitioning Military Personnel Survey

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup>**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sample Size <sup>3</sup>	242.0	3,096.0	117.0	941.0
Gender				
Male	80.8	85.4	82.1	85.3
Female	19.2	14.6	17.9	14.7
Race/Ethnicity				
White, non-Hispanic	60.2	60.9	57.4	62.0
African American, non-Hispanic	12.9	12.6	10.6	13.1
Hispanic	15.8	17.2	17.3	16.6
Other	11.2	9.2	14.7	8.3
Age				
25 or younger	59.1	48.0	57.0	48.0
26–34	27.0	27.4	24.7	28.1
35 or older	13.9	24.6	18.3	23.9
Family Status				
Not married	58.5	48.9	59.2	47.9
Married	41.5	51.1	40.8	52.1
Pay Grade				
E1–E9, W1–W5	95.9	92.9	97.9	93.2
O1–O6	4.1	7.1	2.1	6.8
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service	23.1	7.0	13.8	6.3
Time in Civilian Life <sup>4</sup>				
2–5 months	N/A	N/A	3.1	4.1
6–8 months	N/A	N/A	12.2	12.5
9–11 month	N/A	N/A	15.4	19.2
12–14 months	N/A	N/A	30.3	23.0
15–17 months	N/A	N/A	30.9	32.5
18+ months	N/A	N/A	8.1	8.6

(continued)



**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Single with Dependent Child(ren):	N/A	N/A	17.7	10.1
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	46.2	54.6
Working part-time (work fewer than 35 hours per week on average)	N/A	N/A	10.1	13.8
Working as self-employed in own business or profession	N/A	N/A	2.3	3.3
Unemployed	N/A	N/A	39.9	27.1
An unpaid worker (volunteer)	N/A	N/A	6.2	5.1
Retired	N/A	N/A	7.5	13.4
In school	N/A	N/A	43.5	40.2
A homemaker, housewife, househusband	N/A	N/A	9.8	9.5
Disabled	N/A	N/A	31.7	15.3
Working multiple jobs	N/A	N/A	4.7	5.4
Working temporary job(s)	N/A	N/A	6.5	7.9
Current personal monthly income:				
Less than \$1,000	N/A	N/A	24.5	17.5
\$1,000 to \$1,499	N/A	N/A	22.1	16.8
\$1,500 to \$1,999	N/A	N/A	13.7	15.2
\$2,000 to \$2,999	N/A	N/A	19.9	19.2
\$3,000 to \$4,999	N/A	N/A	13.5	17.1
\$5,000 or more	N/A	N/A	6.4	14.2
Are You Currently Receiving any Service-Related Disability Compensation?	N/A	N/A	58.6	44.4

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation1 (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Work Stress Indicator <sup>5</sup>				
A lot	69.3	41.8	34.2	15.2
Some	22.4	33.2	23.1	27.7
A little	6.6	19.2	17.4	26.6
None	1.7	5.7	25.3	30.4
Family Stress Indicator				
A lot	50.4	25.3	62.4	22.9
Some	28.3	28.9	18.0	25.6
A little	14.2	28.7	8.9	31.9
None	7.1	17.2	10.7	19.6
Spouse Stress Indicator				
A lot	32.9	22.0	34.2	16.4
Some	16.7	22.5	15.0	19.4
A little	7.9	14.8	7.3	20.7
None	2.1	3.7	0.0	8.9
I do not have a spouse	40.4	37.1	43.5	34.7
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	18.6	8.8	30.3	9.2
Moderate	38.0	29.8	36.9	29.7
Mild	19.4	21.9	22.6	20.7
Very mild	15.3	19.0	5.2	19.4
None	8.7	20.5	5.0	21.1
MOS Current Health Perception				
Low	42.1	18.6	60.9	16.1
Medium	45.8	47.7	34.2	43.7
High	12.1	33.7	4.9	40.2

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Combat Exposure Scale Score				
Low	40.6	48.7	33.6	49.3
Medium	24.4	25.2	24.4	23.0
High	35.0	26.1	42.0	27.7
Number of career Combat Deployments				
0.0	26.5	17.6	20.6	17.2
1.0	28.2	25.0	26.4	26.0
2.0	21.8	28.5	30.3	28.3
3 or 4	18.1	18.9	18.3	20.2
5 or more	5.5	10.0	4.4	8.3
Number of Months in Past Year on Combat Deployments				
0 months	51.7	50.1	53.1	47.1
1 to 6 months	18.1	22.9	17.0	23.7
7 to 12 months	30.3	27.0	30.0	29.2
Number of Months in Past Year on Noncombat Deployment				
0 months	57.1	56.1	64.9	55.1
1 or 2 months	14.3	16.3	12.4	17.1
3 or 4 months	12.2	13.7	8.8	15.2
5 to 12 months	16.4	13.8	14.0	12.6
Deployment Extension—Ever in Career				
Yes	23.2	29.5	36.8	27.2
Place of Deployment				
Iraq/Afghanistan	63.0	71.0	72.3	71.1
Other, Not Iraq or Afghanistan	14.3	15.3	8.5	16.0
None	22.6	13.7	19.3	12.9

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Currently Have Injuries or Health Problems as a Result of my Military Experience	N/A	N/A	89.9	62.1
Currently Have Injuries or Health Problems Not Related to my Service in the Military	N/A	N/A	24.6	11.7
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	18.3	4.0
Money Issues	N/A	N/A	68.5	42.1
Legal Issues	N/A	N/A	16.9	4.5
Smoker	51.5	40.4	35.8	29.2
Heavy Drinker	N/A	N/A	14.9	12.0
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about any Recent Changes in Your Appearance, Quality of Work, or Relationships?	N/A	N/A	29.6	8.6
Since Leaving the Military, Have You had a Physical or Mental Condition that Caused You to Lose Your Job?	N/A	N/A	13.2	2.7
How Many Times Have You Changed Jobs since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	47.3	55.4
1 job change	N/A	N/A	19.7	21.8
More than 1 job change	N/A	N/A	33.0	22.8
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	31.0	7.1
1 or 2 times	N/A	N/A	16.6	10.6
0 times	N/A	N/A	52.4	82.4
Since Leaving the Military, Have You had Problems Sleeping because of Nightmares?	N/A	N/A	53.2	19.9
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	87.3	40.1

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	42.8	9.4
Some	N/A	N/A	34.5	28.5
A little	N/A	N/A	18.1	31.8
None at all	N/A	N/A	4.6	30.3
Since Leaving the Military Did You Drive a Car or Other Vehicle when You had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	5.7	6.8
Yes, 2 or 3 times	N/A	N/A	12.6	8.8
Yes, more than 3 times	N/A	N/A	13.6	5.7
No	N/A	N/A	68.1	78.6
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	5.9	4.5
No	N/A	N/A	94.1	95.5
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	6.7	7.3
No	N/A	N/A	93.3	92.7
Risk-Taking				
Not at all	N/A	N/A	12.7	19.6
A little	N/A	N/A	32.5	54.2
Some	N/A	N/A	38.8	19.5
A lot	N/A	N/A	16.0	6.8

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sensation-Seeking				
Not at all	N/A	N/A	10.1	7.0
A little	N/A	N/A	25.5	30.0
Some	N/A	N/A	35.8	40.3
A lot	N/A	N/A	28.6	22.7
Avoidant Coping Strategy	88.4	74.4	82.3	74.1
Problem-Oriented Coping Strategy	94.2	96.4	94.1	96.4
Spirituality Indicator				
Low	31.3	27.9	34.2	31.3
Medium	51.5	53.2	47.5	49.2
High	17.2	18.9	18.3	19.6
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	31.2	12.0	19.6	11.4
Medium	50.3	57.2	55.8	57.6
High	18.5	30.8	24.6	31.0
DRRI Post-deployment Social Support Scale (Personal Social Support)				
Low	25.4	6.9	56.1	20.0
Medium	65.2	59.2	38.7	49.6
High	9.4	33.9	5.2	30.4
Physically Active, Moderate or Vigorous at Least 3 Days/Week	66.0	66.5	51.4	64.1
Know at Least One Military Veteran to Talk to about War Experiences or Other Stressful Deployment Events	N/A	N/A	59.7	75.6
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	67.9	85.2
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	32.8	36.3

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
What Type of Group(s)? (Mark all that apply.)				
Social group	N/A	N/A	44.9	59.6
Support group	N/A	N/A	36.4	6.3
Reserve unit	N/A	N/A	3.6	14.9
Sports team	N/A	N/A	0.0	3.7
Other	N/A	N/A	45.4	33.3
Anxiety	59.8	20.1	61.7	15.9
Depression	90.4	36.1	90.8	31.9
PTSD	59.5	14.1	69.2	15.6
Substance Abuse Indicator (TICS)	61.4	43.7	55.7	25.5
Suicidal Ideation	N/A	N/A	N/A	N/A
Any Mental Health Problem <sup>6</sup>	100.0	41.2	100.0	37.1
Resilience	71.7	92.8	68.4	92.8
MOS Mental Health Scale				
Low	70.2	19.8	71.5	17.3
Medium	27.3	54.1	24.9	50.4
High	2.5	26.1	3.6	32.3
Any Activity Restriction due to Poor Mental Health Past 30 Days	79.3	28.2	81.5	31.9
Any Receipt of Mental Health Services in the Past 12 Months	59.9	27.9	63.3	23.1
Concerns for which Counseling Was Sought				
Depression	48.9	9.8	47.7	9.8
Anxiety	33.2	8.4	39.4	9.0
Family problems	23.8	8.9	19.4	5.0
Substance use problems	10.6	3.4	4.6	1.4
Anger management	26.0	5.2	29.8	5.7
Stress management	30.6	7.3	32.6	7.4
Combat/operational stress	14.0	4.4	28.4	6.2

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Other (specify)	6.4	5.2	6.6	3.3
I did not seek help from a mental health professional in the past 12 months	43.0	76.6	47.2	82.1
Feel the Need for Counseling	76.9	23.5	74.5	24.2
Prescribed Medication for Mental Health Issue in Past 12 Months	36.8	9.9	37.1	10.6
Overall, How Satisfied or Dissatisfied are You with the Quality of Health Care You Have Received since Leaving the Military?				
Very satisfied	N/A	N/A	21.8	21.4
Somewhat satisfied	N/A	N/A	27.0	35.2
Somewhat dissatisfied	N/A	N/A	18.0	10.0
Very dissatisfied	N/A	N/A	14.3	6.6
I have not received any health care since leaving the military	N/A	N/A	18.8	26.8
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	25.6	9.4
A small problem	N/A	N/A	31.0	19.8
Not a problem	N/A	N/A	43.4	70.8
Since Leaving the Military, when You Needed Care Right Away for an Illness, Injury, or Condition, How Often did You Get Care as Soon as You Thought You Needed It?				
Always	N/A	N/A	13.5	21.8
Usually	N/A	N/A	23.5	17.6
Sometimes	N/A	N/A	31.5	17.2
Never	N/A	N/A	13.6	9.3
I have not needed health care since leaving the military.	N/A	N/A	18.0	34.0

(continued)



**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, was there any Time when You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	30.1	12.5
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	39.6	39.7
I had to wait on approval from my health insurance	N/A	N/A	11.4	9.1
I could not fit it into my schedule	N/A	N/A	0.0	2.0
I could not afford to miss work	N/A	N/A	7.5	9.3
I had to wait too long for an appointment	N/A	N/A	20.3	26.6
I had to drive too far for the medical care	N/A	N/A	12.1	3.6
Other	N/A	N/A	9.0	9.6
Do You Have Health Coverage?	N/A	N/A	87.4	83.3
Overall, How Satisfied or Dissatisfied are You with the Health Care Available to You?				
Very satisfied	N/A	N/A	18.9	32.1
Somewhat satisfied	N/A	N/A	44.5	45.8
Somewhat dissatisfied	N/A	N/A	16.0	11.5
Very dissatisfied	N/A	N/A	20.6	10.5
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	32.6	6.7

(continued)

**Table 3-13. Sample Characteristics of Transition Study Participants by Suicidal Ideation<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, My Children Experienced the Following or Behaved in any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	23.8	9.6
Disruptive or problem behavior	N/A	N/A	37.5	16.5
Social withdrawal from peers	N/A	N/A	19.4	3.6
Bullying	N/A	N/A	26.4	5.1
Alcohol or drug use	N/A	N/A	4.0	2.5
Total Sample	7.2	92.8	11.3	88.7

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under Baseline High Resilience are the percentages of those with high resilience at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> Yes indicates a positive score based on binary scoring of seven anxiety items from the Patient Health Questionnaire.

<sup>3</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>4</sup> Minimum civilian time is 2 months.

<sup>5</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>6</sup> Yes indicates the individual responded positively to the suicidal ideation question on the baseline or follow-up survey.

Source: 2007—Status of Transitioning Military Personnel Survey

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup>**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sample Size <sup>3</sup>	1,524.0	1,747.0	430.0	563.0
Gender				
Male	83.2	86.7	83.2	85.6
Female	16.8	13.3	16.8	14.4
Race/Ethnicity				
White, non-Hispanic	58.9	62.2	60.0	62.7
African American, non-Hispanic	13.3	12.4	13.0	12.3
Hispanic	18.4	16.4	16.7	16.5
Other	9.4	9.0	10.4	8.5
Age				
25 or younger	53.6	45.4	52.5	48.0
26–34	28.2	26.9	29.4	25.4
35 or older	18.2	27.7	18.1	26.6
Family Status				
Not married	51.8	48.0	55.9	45.2
Married	48.2	52.0	44.1	54.8
Pay Grade				
E1–E9, W1–W5	96.1	91.2	97.0	91.9
O1–O6	3.9	8.8	3.0	8.1
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service	12.7	4.8	10.4	5.3
Time in Civilian Life <sup>4</sup>				
2–5 months	N/A	N/A	3.5	4.6
6–8 months	N/A	N/A	9.7	14.7
9–11 month	N/A	N/A	17.3	18.7
12–14 months	N/A	N/A	26.7	22.0
15–17 months	N/A	N/A	33.7	31.7
18+ months	N/A	N/A	9.1	8.3

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Single with Dependent Child(ren):	N/A	N/A	14.8	8.1
Employment Status (Mark all that apply)				
Working full-time (work 35 or more hours per week on average)	N/A	N/A	49.8	55.1
Working part-time (work less than 35 hours per week on average)	N/A	N/A	10.5	16.4
Working as self-employed in own business or profession	N/A	N/A	2.4	3.8
Unemployed	N/A	N/A	36.2	23.5
An unpaid worker (volunteer)	N/A	N/A	5.2	5.6
Retired	N/A	N/A	10.1	14.5
In school	N/A	N/A	37.6	42.8
A homemaker, housewife, househusband	N/A	N/A	9.4	9.9
Disabled	N/A	N/A	24.6	11.7
Working multiple jobs	N/A	N/A	5.4	5.6
Working temporary job(s)	N/A	N/A	9.6	7.1
Current personal monthly income:				
Less than \$1,000	N/A	N/A	19.4	18.6
\$1,000 to \$1,499	N/A	N/A	19.8	16.2
\$1,500 to \$1,999	N/A	N/A	13.2	16.4
\$2,000 to \$2,999	N/A	N/A	23.3	15.7
\$3,000 to \$4,999	N/A	N/A	16.7	16.5
\$5,000 or more	N/A	N/A	7.7	16.6
Are You Currently Receiving any Service-Related Disability Compensation?	N/A	N/A	50.7	42.0

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Work Stress Indicator <sup>5</sup>				
A lot	62.7	29.7	30.6	8.3
Some	26.2	37.2	28.8	26.9
A little	9.7	25.0	14.2	33.1
None	1.5	8.2	26.4	31.7
Family Stress Indicator				
A lot	42.1	15.9	50.9	10.8
Some	30.3	28.1	27.2	23.1
A little	18.3	34.7	13.1	41.9
None	9.3	21.4	8.7	24.2
Spouse Stress Indicator				
A lot	31.3	16.6	31.1	9.8
Some	20.7	23.1	20.4	17.6
A little	9.1	17.9	7.5	26.8
None	2.7	4.0	2.8	10.9
I do not have a spouse	36.2	38.5	38.3	35.0
MOS Pain Indicator (past 4 weeks)				
Very severe/severe	14.9	5.6	20.5	5.2
Moderate	38.6	24.5	36.4	26.6
Mild	21.9	22.1	20.8	21.3
Very mild	14.4	21.9	12.8	21.7
None	10.1	26.0	9.5	25.2
MOS Current Health Perception				
Low	33.6	10.1	39.5	8.1
Medium	51.2	45.3	47.0	40.0
High	15.3	44.6	13.5	51.9

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Combat Exposure Scale Score				
Low	41.7	52.4	39.1	52.0
Medium	25.8	25.2	22.9	24.3
High	32.5	22.5	38.0	23.8
Number of Career Combat Deployments				
0.0	20.1	16.6	19.4	16.8
1.0	25.3	25.0	24.6	27.3
2.0	28.3	28.5	28.9	28.8
3 or 4	18.2	19.6	20.8	18.8
5 or more	8.2	10.3	6.3	8.4
Number of Months in Past Year on Combat Deployments				
0 months	47.8	51.6	45.7	48.6
1 to 6 months	22.6	22.8	20.2	24.2
7 to 12 months	29.6	25.6	34.1	27.2
Number of Months in Past Year on Noncombat Deployment				
0 months	55.3	56.5	57.3	54.1
1 or 2 months	15.9	16.4	15.0	19.4
3 or 4 months	13.3	13.9	14.8	13.8
5 to 12 months	15.5	13.2	12.9	12.7
Deployment Extension—Ever in Career				
Yes	29.5	29.1	29.6	27.6
Place of Deployment				
Iraq/Afghanistan	69.4	71.6	72.5	69.8
Other, Not Iraq or Afghanistan	14.6	15.5	13.2	16.5
None	16.1	12.8	14.3	13.7

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Currently Have Injuries or Health Problems as a Result of my Military Experience	N/A	N/A	79.7	55.6
Currently Have Injuries or Health Problems Not Related to my Service in the Military	N/A	N/A	19.1	8.5
Currently Working Reduced Hours Because of Illness or Injury	N/A	N/A	11.5	1.5
Money Issues	N/A	N/A	61.7	34.3
Legal Issues	N/A	N/A	9.7	3.1
Smoker	47.6	36.4	36.8	25.4
Heavy Drinker	N/A	N/A	15.8	9.9
Since Leaving the Military, Have Your Co-workers or Supervisors Made Negative Comments about any Recent Changes in Your Appearance, Quality of Work, or Relationships?	N/A	N/A	21.4	3.9
Since Leaving the Military, Have You had a Physical or Mental Condition that Caused You to Lose Your Job?	N/A	N/A	8.7	0.2
How Many Times Have You Changed Jobs since Leaving the Military?				
Not employed or 0 job changes	N/A	N/A	49.7	58.3
1 job change	N/A	N/A	19.7	22.4
More than 1 job change	N/A	N/A	30.6	19.3
Since Leaving the Military, How Often Have You Been Late for Work due to Emotional or Physical Problems?				
3 or more times	N/A	N/A	20.9	2.0
1 or 2 times	N/A	N/A	17.0	7.4
0 times	N/A	N/A	62.0	90.6
Since Leaving the Military, Have You had Problems Sleeping because of Nightmares?	N/A	N/A	43.5	9.9
Since Leaving the Military, Have You had Problems with Anger, Frustration, Resentment, Hostility or Losing Your Temper?	N/A	N/A	76.4	24.2

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
How Much Trouble Have You had Adjusting to Civilian Life?				
A lot	N/A	N/A	27.6	2.6
Some	N/A	N/A	40.3	22.1
A little	N/A	N/A	24.3	35.5
None at all	N/A	N/A	7.9	39.8
Since Leaving the Military Did You Drive a Car or Other Vehicle when You had Too Much to Drink?				
Yes, but only 1 time	N/A	N/A	4.9	8.4
Yes, 2 or 3 times	N/A	N/A	13.2	6.5
Yes, more than 3 times	N/A	N/A	11.1	3.4
No	N/A	N/A	70.7	81.7
Since Leaving the Military Did You Drive or Ride in a Boat, Canoe, or Other Watercraft when You had Too Much to Drink?				
Yes, 1, 2, or 3+ times	N/A	N/A	7.8	2.6
No	N/A	N/A	92.2	97.4
Since Leaving the Military Did You Ride or Drive a Motorcycle without a Helmet?				
Yes, 1, 2, or 3+ times	N/A	N/A	10.0	4.9
No	N/A	N/A	90.0	95.1
Risk-Taking				
Not at all	N/A	N/A	12.3	22.2
A little	N/A	N/A	43.0	58.0
Some	N/A	N/A	30.0	17.1
A lot	N/A	N/A	14.7	2.7

(continued)



**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Sensation-Seeking				
Not at all	N/A	N/A	7.2	6.7
A little	N/A	N/A	26.8	30.1
Some	N/A	N/A	36.0	44.0
A lot	N/A	N/A	30.1	19.2
Avoidant Coping Strategy	84.3	68.5	80.2	72.7
Problem-Oriented Coping Strategy	95.3	96.7	94.8	96.7
Spirituality Indicator				
Low	30.1	27.0	36.4	27.8
Medium	51.9	54.2	46.6	51.2
High	17.9	18.8	16.9	21.0
DRRI Deployment Social Support Scale (Unit Cohesion)				
Low	21.0	7.4	16.7	9.9
Medium	57.1	56.8	56.9	58.6
High	21.9	35.8	26.5	31.5
DRRI Post-deployment Social Support Scale (Personal Social Support)				
Low	15.8	2.6	45.1	9.5
Medium	67.7	54.5	44.9	52.7
High	16.6	42.9	10.1	37.8
Physically Active, Moderate or Vigorous at Least 3 Days/Week	63.2	69.0	56.3	67.9
Know at Least One Military Veteran to Talk to about War Experiences or Other Stressful Deployment Events	N/A	N/A	69.0	77.0
Talking to Another Veteran Helped Me Handle Stress Better	N/A	N/A	76.8	87.7
Have the Opportunity to Interact with a Group of Combat Veterans	N/A	N/A	32.6	38.3

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
What Type of Group(s)? (Mark all that apply.)				
Social group	N/A	N/A	50.1	62.0
Support group	N/A	N/A	18.3	3.7
Reserve unit	N/A	N/A	13.8	13.7
Sports team	N/A	N/A	1.7	4.4
Other	N/A	N/A	36.3	33.6
Anxiety	51.9	0.0	50.0	0.0
Depression	88.6	0.0	88.7	0.0
PTSD	39.8	0.0	51.5	0.0
Substance Abuse Indicator (TICS)	54.4	38.1	40.8	20.8
Suicidal Ideation	16.5	0.0	26.9	0.0
Any Mental Health Problem <sup>6</sup>	N/A	N/A	N/A	N/A
Resilience	84.7	96.4	78.2	98.8
MOS Mental Health Scale				
Low	49.7	3.2	53.8	1.3
Medium	47.7	57.5	42.0	53.5
High	2.6	39.3	4.2	45.2
Any Activity Restriction due to Poor Mental Health Past 30 Days	57.1	12.6	66.1	17.5
Any Receipt of Mental Health Services in the Past 12 Months	43.8	20.2	47.5	13.9
Concerns for which Counseling Was Sought				
Depression	23.9	4.0	29.7	3.0
Anxiety	18.7	3.7	26.0	3.0
Family problems	16.0	5.8	11.6	3.0
Substance use problems	6.1	2.2	2.9	1.0
Anger management	12.7	2.3	17.9	1.7
Stress management	15.9	3.8	21.5	2.1
Combat/operational stress	9.8	1.5	17.6	2.5

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Other (specify)	6.5	4.4	5.3	2.5
I did not seek help from a mental health professional in the past 12 months	60.8	84.0	60.2	90.8
Feel the Need for Counseling	48.2	11.5	57.3	10.4
Prescribed Medication for Mental Health Issue in Past 12 Months	21.1	4.6	27.0	4.0
Overall, How Satisfied or Dissatisfied are you with the Quality of Health Care You Have Received since Leaving the Military?				
Very satisfied	N/A	N/A	15.1	25.6
Somewhat satisfied	N/A	N/A	34.6	34.8
Somewhat dissatisfied	N/A	N/A	15.0	7.2
Very dissatisfied	N/A	N/A	11.7	4.3
I have not received any health care since leaving the military	N/A	N/A	23.6	28.1
Since Leaving the Military, How Much of a Problem, If Any, were Delays in Health Care while You Waited for Approval from Your Health Plan?				
A big problem	N/A	N/A	18.2	6.3
A small problem	N/A	N/A	28.6	15.9
Not a problem	N/A	N/A	53.2	77.7
Since Leaving the Military, when You Needed Care Right Away for an Illness, Injury, or Condition, How Often Did You Get Care as soon as You Thought You Needed It?				
Always	N/A	N/A	16.4	23.4
Usually	N/A	N/A	19.0	17.6
Sometimes	N/A	N/A	27.4	13.0
Never	N/A	N/A	13.2	8.0
I have not needed health care since leaving the military.	N/A	N/A	24.0	37.9

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Since Leaving the Military, was there any Time when You Needed Medical Care or Surgery but Did Not Get It?	N/A	N/A	22.4	9.4
If yes, what was the main reason you didn't get the care you needed?				
I did not have the money to pay for care	N/A	N/A	45.8	29.6
I had to wait on approval from my health insurance	N/A	N/A	8.1	12.9
I could not fit it into my schedule	N/A	N/A	1.5	1.8
I could not afford to miss work.	N/A	N/A	7.0	12.9
I had to wait too long for an appointment	N/A	N/A	19.2	33.6
I had to drive too far for the medical care	N/A	N/A	8.6	0.0
Other	N/A	N/A	9.8	9.1
Do You Have Health Coverage?	N/A	N/A	82.3	84.7
Overall, How Satisfied or Dissatisfied are You with the Health Care Available to You?				
Very satisfied	N/A	N/A	21.6	37.2
Somewhat satisfied	N/A	N/A	44.9	46.1
Somewhat dissatisfied	N/A	N/A	17.6	8.0
Very dissatisfied	N/A	N/A	15.9	8.7
Are You Currently Receiving Counseling or Therapy for Mental Health or Substance Abuse Problems?				
Yes	N/A	N/A	20.4	1.8
Since Leaving the Military, My Children Experienced the Following or Behaved in any of the Following Ways. (Percentages are of those who have children.)				
Declining academic performance or grades	N/A	N/A	16.6	8.1
Disruptive or problem behavior	N/A	N/A	28.6	13.4
Social withdrawal from peers	N/A	N/A	8.9	3.3
Bullying	N/A	N/A	15.3	2.5

(continued)

**Table 3-14. Sample Characteristics of Transition Study Participants by Any Mental Health Problem<sup>1</sup> (continued)**

Measure	Baseline		Follow-Up	
	Yes <sup>2</sup>	No <sup>2</sup>	Yes <sup>2</sup>	No <sup>2</sup>
Alcohol or drug use	N/A	N/A	3.1	2.7
Total Sample	46.6	53.4	44.7	55.3

<sup>1</sup> Percentages are column percentages. So, for example, with gender, the percentages under Baseline Any Mental Health Problem Yes are the percentages of those indicating any mental health or substance abuse problem at baseline who are male or who are female. Percentages may not add to 100 because of rounding.

<sup>2</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation).

<sup>3</sup> Sample size for BL consists of all BL respondents who are eligible for the FU survey; for FU it consists of all eligible respondents.

<sup>4</sup> Minimum civilian time is 2 months.

<sup>5</sup> At baseline, all respondents were employed by the military. At follow-up, a sizable percentage of the civilian respondents are unemployed, which affects the work stress percentages.

<sup>6</sup> Yes indicates the individual responded positively to the suicidal ideation question on the baseline or follow-up survey.

Source: 2007—Status of Transitioning Military Personnel Survey

Table 3-15 shows a comparison of BL measures for Sailors and Marines who had formally left the military (Separators) versus those who remained in the military at the time of our FU survey (Nonseparators). In general, Separators and Nonseparators are comparatively similar, although Separators reported slightly higher levels of anxiety (22.9% vs. 18.7%) and for receipt of mental health services in the past 12 months (30.4% vs. 25.7%)

Table 3-16 presents BL measures for sample members who provided consent to access their medical records (Consenters) versus those who did not give this permission (Nonconsenters). A review of the measures shows high similarity between Consenters and Nonconsenters.

A cross-tabulation of major mental health outcomes by Navy and Marine Corps participants is provided in Table 3-17. Percentages of both the Sailors and Marines reporting anxiety and depression decreased from BL to FU, with Marine Corps anxiety rates dropping from 31.6% to 29.5%. Depression rates dropped from 34.9% to 33.4% at FU in the Navy sample and from 50.0% to 47.8% in the Marine Corps sample. Incidence rates showed that a significant percentage of personnel showing no evidence of generalized anxiety at BL met screening criteria at FU (9.1% of those who had been in the Navy and 18.6% of those who had been in the Marine

Corps). Incidence rates for depression (20.3%) in the former Navy sample were twice those for anxiety and were also elevated (31.4%) in the Marine Corps sample.

**Table 3-15. Comparison of Separators versus Nonseparators on Various Variables\***

	Separators	Nonseparators
Sample Size <sup>1</sup>	3,472	281
Service Branch		
Navy	63	62.3
Marine Corps	37	37.7
Anxiety		
Yes	22.9	18.7
Depression		
Yes	40.5	42.6
PTSD		
Yes	17.6	15.5
Substance Abuse Indicator (TICS)		
Yes	44.8	45
Suicidal Ideation		
Yes	7.2	6.2
Any Mental Health Problem <sup>2</sup>		
Yes	46.5	47.4
Resilience		
Low	25	22.2
Medium	50.1	50.9
High	24.9	26.9
MOS Mental Health Scale		
Low	23.8	25.4
Medium	52	48
High	24.2	26.5
Any Activity Restriction due to Poor Mental Health Past 30 Days		
Yes	31.8	31.7
Any Receipt of Mental Health Services in the Past 12 Months		
Yes	30.4	25.7

(continued)

**Table 3-15. Comparison of Separators versus Nonseparators on Various Variables\*  
(continued)**

	Separators	Nonseparators
Concerns for which Counseling Was Sought		
Depression	12.8	8
Anxiety	10.3	7.3
Family problems	10.3	8.8
Substance use problems	4	4.6
Anger management	6.9	4.2
Stress management	9.1	5.7
Combat/operational stress	5.2	5
Other (specify)	5.3	4.2
I did not seek help from a mental health professional in the past 12 months	73.8	77
Feel the Need for Counseling		
Yes	27.4	25.4
Prescribed Medication for Mental Health Issue in Past 12 Months		
Yes	11.7	7.4
Gender		
Male	85.2	85.7
Female	14.8	14.3
Race/Ethnicity		
White, non-Hispanic	60.7	53.1
African American, non-Hispanic	13.1	17.7
Hispanic	17	19.9
Other	9.2	9.4
Age		
25 or younger	48.8	44.7
26–34	27.1	24.5
35 or older	24	30.8
Family Status		
Not married	49.3	43.4
Married	50.7	56.6

(continued)



**Table 3-15. Comparison of Separators versus Nonseparators on Various Variables\*  
(continued)**

	Separators	Nonseparators
Pay Grade		
E1–E9, W1–W5	93.3	97.2
O1–O6	6.7	2.8
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service		
Yes	8.2	5.8
Reason for Leaving Military		
Retirement	21	27
Expiration of term of service (ETS)	54.8	52.6
Other	24.2	20.4
Current Smoker		
Yes	40.9	35.5
Previous Lifetime Trauma		
Yes	51.9	53.6
Life Event Stress		
Low	29.3	32.6
Medium	42.3	37.6
High	28.5	29.7
DRRI Post-deployment Stressors Index		
Low	22.7	32.6
Medium	42.4	36.6
High	34.9	30.8
Work Stress Indicator		
A lot	43.8	42.7
Some	32.3	34.8
A little	18.5	19.4
None	5.5	3.2

(continued)

**Table 3-15. Comparison of Separators versus Nonseparators on Various Variables\*  
(continued)**

	Separators	Nonseparators
Family Stress Indicator		
A lot	27.3	29
Some	28.7	31.2
A little	27.6	25.1
None	16.5	14.7
Spouse Stress Indicator		
A lot	23	22.3
Some	22.2	26.3
A little	14.1	14.4
None	3.6	4
I do not have a spouse	37.2	33.1
MOS Pain Indicator (past 4 weeks)		
Very severe/severe	9.6	8.6
Moderate	30.4	30.7
Mild	21.7	21.8
Very mild	18.6	16.8
None	19.6	22.1
MOS Current Health Perception		
Low	20.5	17.6
Medium	47.5	46.8
High	32	35.6
Combat Exposure Scale Score		
Low	48.1	49.1
Medium	25.1	26.5
High	26.8	24.4
Number of Career Combat Deployments		
0	18.3	15.2
1	25.1	24.3
2	28.1	27.9
3 or 4	18.9	18.8
5 or more	9.5	13.8

(continued)

**Table 3-15. Comparison of Separators versus Nonseparators on Various Variables\*  
(continued)**

	Separators	Nonseparators
Number of Months in Past Year on Combat Deployments		
0 months	50.4	48.6
1 to 6 months	22.4	26.8
7 to 12 months	27.2	24.6
Number of Months in Past Year on Noncombat Deployment		
0 months	56.1	49.5
1 or 2 months	16.2	20.7
3 or 4 months	13.6	13.5
5 to 12 months	14.1	16.4
Deployment Extension—Ever in Career		
Yes	29.2	28.5
Place of Deployment		
Iraq/Afghanistan	70.1	70.7
Other, Not Iraq or Afghanistan	15.4	17.8
None	14.5	11.5
Avoidant Coping Strategy		
Yes	75.6	71.8
Problem-Oriented Coping Strategy		
Yes	96.1	96.1
Spirituality Indicator		
Low	28.1	26.5
Medium	53.1	53.1
High	18.8	20.4
DRRI Deployment Social Support Scale (Unit Cohesion)		
Low	13.3	7.7
Medium	56.4	59.3
High	30.2	33.1
DRRI Post-deployment Social Support Scale (Personal Social Support)		
Low	8.4	5.8
Medium	59.4	60.5
High	32.2	33.7

(continued)

**Table 3-15. Comparison of Separators versus Nonseparators on Various Variables\* (continued)**

	Separators	Nonseparators
Physically Active, Moderate or Vigorous at Least 3 Days/Week		
Yes	66.7	66.9
Total Sample	92.5	7.5

\* Separators include those individuals who separated from the military during an interval that allowed their follow-up survey to be administered during our data collection window.

<sup>1</sup> Consists of all eligible BL Navy and Marine respondents.

<sup>2</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD, or suicidal ideation)

**Table 3-16. Comparison of Consenters versus Nonconsenters on Mental Health Variables\***

	Consenters	Nonconsenters
Sample Size <sup>1</sup>	2,750	1,003
Service Branch		
Navy	63.7	60.9
Marine Corps	36.3	39.1
Anxiety		
Yes	22.3	23.4
Depression		
Yes	40	42.3
PTSD		
Yes	17.2	18.1
Substance Abuse Indicator (TICS)		
Yes	45.8	42.2
Suicidal Ideation		
Yes	7.2	7
Any Mental Health Problem <sup>2</sup>		
Yes	46.1	47.9
Resilience		
Low	23.8	27.3
Medium	51.3	47.1
High	24.9	25.6
MOS Mental Health Scale		
Low	23.3	25.7
Medium	52.2	50.3
High	24.5	24
Any Activity Restriction due to Poor Mental Health Past 30 Days		
Yes	31.7	32
Any Receipt of Mental Health Services in the Past 12 Months		
Yes	30.4	28.9

(continued)

**Table 3-16. Comparison of Consenters versus Nonconsenters on Mental Health Variables\* (continued)**

	Consenters	Nonconsenters
Concerns for which Counseling Was Sought		
Depression	12	13.4
Anxiety	9.5	11.5
Family problems	10.5	9.3
Substance use problems	4.1	3.9
Anger management	6.9	6.2
Stress management	8.8	9.2
Combat/operational stress	5.4	4.7
Other (specify)	5.2	5.1
I did not seek help from a mental health professional in the past 12 months	73.6	75.4
Feel the Need for Counseling		
Yes	27.3	27
Prescribed Medication for Mental Health Issue in Past 12 Months		
Yes	11	12.6
Gender		
Male	86.6	81.5
Female	13.4	18.5
Race/Ethnicity		
White, non-Hispanic	61.5	56.4
African American, non-Hispanic	12.9	14.8
Hispanic	16.9	18.3
Other	8.7	10.5
Age		
25 or younger	48.6	48.4
26–34	26.8	27.3
35 or older	24.6	24.3
Family Status		
Not married	49.3	47.6
Married	50.7	52.4

(continued)

**Table 3-16. Comparison of Consenters versus Nonconsenters on Mental Health Variables\* (continued)**

	Consenters	Nonconsenters
Pay Grade		
E1–E9, W1–W5	94.3	91.7
O1–O6	5.7	8.3
Disability or Separation for a Physical/Mental Condition that Interferes with Military Service		
Yes	8	8.1
Reason for Leaving Military		
Retirement	21.3	21.8
Expiration of term of service (ETS)	54.9	53.9
Other	23.7	24.3
Current Smoker		
Yes	42.2	35.9
Previous Lifetime Trauma		
Yes	52.8	49.8
Life Event Stress		
Low	29.4	29.9
Medium	42.6	40
High	28	30.1
DRRI Post-deployment Stressors Index		
Low	23.9	22.1
Medium	41.4	43.7
High	34.7	34.2
Work Stress Indicator		
A lot	43.3	44.9
Some	32.7	31.6
A little	18.9	17.5
None	5.1	6

(continued)

**Table 3-16. Comparison of Consenters versus Nonconsenters on Mental Health Variables\* (continued)**

	Consenters	Nonconsenters
Family Stress Indicator		
A lot	27.5	27.2
Some	29	28.6
A little	26.7	29.3
None	16.8	15
Spouse Stress Indicator		
A lot	22.9	22.9
Some	22.5	22.4
A little	13.6	15.5
None	3.6	3.4
I do not have a spouse	37.3	35.8
MOS Pain Indicator (past 4 weeks)		
Very severe/severe	9.7	9.2
Moderate	29.6	32.8
Mild	22.2	20.4
Very mild	18.2	19.4
None	20.4	18.3
MOS Current Health Perception		
Low	19.6	22
Medium	47.7	46.9
High	32.7	31.1
Combat Exposure Scale Score		
Low	47.9	48.9
Medium	25.9	23.4
High	26.2	27.7

(continued)



**Table 3-16. Comparison of Consenters versus Nonconsenters on Mental Health Variables\* (continued)**

	Consenters	Nonconsenters
Number of Career Combat Deployments		
0	17.6	19.4
1	25.4	24.1
2	27.5	29.9
3 or 4	19.1	18.4
5 or more	10.4	8.2
Number of Months in Past Year on Combat Deployments		
0 months	50.4	50.1
1 to 6 months	22.7	22.9
7 to 12 months	27	27.1
Number of Months in Past Year on Noncombat Deployment		
0 months	55	57.5
1 or 2 months	16.9	15.4
3 or 4 months	13.8	13
5 to 12 months	14.3	14.1
Deployment Extension—Ever in Career		
Yes	29.8	27.4
Place of Deployment		
Iraq/Afghanistan	71	67.8
Other, Not Iraq or Afghanistan	14.9	17.3
None	14.1	14.9
Avoidant Coping Strategy		
Yes	75.9	73.8
Problem-Oriented Coping Strategy		
Yes	96.4	95.4
Spirituality Indicator		
Low	29	25.3
Medium	52.6	54.2
High	18.3	20.5

(continued)

**Table 3-16. Comparison of Consenters versus Nonconsenters on Mental Health Variables\* (continued)**

	Consenters	Nonconsenters
DRRI Deployment Social Support Scale (Unit Cohesion)		
Low	12.8	13.2
Medium	56.9	55.8
High	30.3	31
DRRI Post-deployment Social Support Scale (Personal Social Support)		
Low	7.9	8.8
Medium	59.7	58.8
High	32.3	32.4
Physically Active, Moderate or Vigorous at Least 3 Days/Week		
Yes	67	65.8
Total Sample	73.3	26.7

\* Consenters include those individuals who signed the consent on the baseline survey to allow us to access their medical records and other CHAMPS data.

<sup>1</sup> Consists of all eligible BL Navy and Marine respondents.

<sup>2</sup> Yes indicates a “yes” on any of the mental health (anxiety, depression, PTSD or suicidal ideation)

**Table 3-17. Prevalence and Incidence of Major Mental Health Outcomes**

Outcome	Navy					Marine Corps				
	Prevalence		Incidence	Relative Risk <sup>1</sup>		Prevalence		Incidence	Relative Risk <sup>1</sup>	
	Baseline	Follow-Up		Medium	High	Baseline	Follow-Up		Medium	High
Generalized Anxiety Symptoms	17.86	15.86	9.07	1.4	1.86	31.61	29.46	18.55	1.23	1.72
Depression Symptoms	34.93	33.43	20.26	0.96	1.28	50.04	47.83	31.36	0.98	1.24
PTSD Symptoms	12.98	16.74	12.13	1.71	2.67	25.59	29.52	17.73	2.55	3.33
Substance Abuse Symptoms	40.2	26.33	14.44	1.11	1.74	52.9	32.67	19.55	1.16	1.44
Suicidal or Self-Harming Ideation	5.67	10.03	8.33	1.49	1.86	9.92	13.41	8.37	1.7	2.42
Any Mental Health Problem (excluding substance abuse)	40.6	38.79	24.8	1.1	1.28	56.48	54.37	33.5	1.07	1.35
Any Mental Health Problem (including substance abuse)	62.29	52.61	34.13	1.12	1.4	76.12	63.41	43.87	1.02	1.2
Resilience	91.92	90.23	48.96	1.03	0.99	90.18	89.65	62.08	0.9	0.88

<sup>1</sup> Relative risk is defined relative to the combat exposure scores that were assigned to three categories with “low” equal to no combat exposure. In each column, the reference for the relative risk statistic is the “low” category of combat exposure.

### **3.6 Estimate of Current Prevalence of Mental Health Outcomes among Separated Marines**

To explore the factors that were associated with anxiety and depression at FU, we fit multiple and hierarchical logistic regression models for each of these two outcomes, initially with a set of fourteen independent variables. Table 3-18 lists those used in the analysis, arranged according to the classifications used in the hierarchical regression discussed below. All continuous covariates were recentered to have a mean of zero. Automatic variable selection was applied to the full list (stepwise, forward, and backward methods) to further reduce possible multicollinearity by identifying a minimal model. All three methods arrived at the same reduced models for each outcome, albeit the reduced models for anxiety and depression, each containing six variables, differed slightly from each other.

To understand the relative contributions of various sets of covariates conditional on other sets being in the model, we performed a hierarchical logistic regression on both the full and reduced model covariate sets. In the first step for the full model, we entered the demographic variables (gender, unemployment, marital status, and income at FU) into the model. In the second step, we included the combat and Service-related variables (military-related injury and combat exposure). In the third step, we added the risk factors (BL anxiety or depression, nonmilitary injury, stress index, risk-taking/sensation-seeking, and strong religious influence). Finally, in the fourth step, we added the protective factors (deployment social support, FU post-deployment social support, and BL resilience score). The same procedure was used for the reduced models using only the variables that remained in that model at each step.

The analysis sample size is 764 after cases with any missing data were removed, 513 of which are Sailors and 251 are Marines. The largest drop in the sample available for the logistic modeling (close to 200 cases) occurs because of the inclusion of variables in the model that were only asked of the subset of respondents who had a deployment. The analysis sample had the following characteristics. Most individuals had 9 to 17 months' experience as civilians by the time the FU survey was taken; the average time in civilian life for the sample was 12.8 months (12.6 Navy, 13.3 Marine Corps). Women were 15.2% (18.3 Navy, 8.8 Marine Corps), 35.4% (38.5 Navy, 29.0 Marine Corps) were non-White or Hispanic, and 10.2% (12.1 Navy, 6.4 Marine Corps) were officers. Most (53.1%, 36.6 Navy, 86.8 Marine Corps) had had some combat exposure, and 45.9% personnel (36.6 Navy, 64.1 Marine Corps) had been on a combat deployment for at least 5 months in the past year before the BL survey. On the BL survey, 27.6% (27.3 Navy, 28.1 Marine Corps) indicated that they had sought counseling, and 26.8% (26.5 Navy, 27.5 Marine Corps) had received some sort of mental

**Table 3-18. Means, Standard Deviations, Reliability Estimates, and Correlations of Independent and Dependent Variables (N = 764)**

Variable	Means	Std. Dev.s	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. FU Anxiety	0.20	0.71	—															
2. FU Depression	0.37	0.84	0.5***	.78-.91														
3. Gender	1.13	0.59	0.07	-0.02	—													
4. FU Invol. Unemployed	1.92	0.47	-0.01	-0.05	0.01	—												
5. FU Marital Status	1.51	0.88	0.00	-0.08*	-0.05	0.14***	—											
6. FU Income	3.41	2.96	-0.04	-0.05	-0.09*	0.27***	0.3***	—										
7. Mil.-Related Injury	1.34	0.83	-0.22***	-0.2***	0.03	-0.01	-0.12***	-0.14***	—									
8. Combat Exposure	5.89	17.49	0.21***	0.2***	-0.1**	-0.06	-0.08*	-0.11**	-0.17***	0.93								
9. BL Anxiety or Depres.	0.40	0.86	0.35***	0.36***	0.03	-0.05	-0.05	-0.07	-0.13***	0.17***	—							
10. Nonmilitary Injury	1.87	0.59	-0.09*	-0.13***	-0.05	-0.03	0.06	0.02	0.08*	-0.01	-0.04	—						
11. FU Stress Index	2.86	3.78	0.51***	0.51***	0.06	-0.1**	-0.06	-0.13***	-0.21***	0.21***	0.28***	-0.14***	—					
12. FU Risk-Tak/Sens-Seek	2.12	1.24	0.24***	0.18***	-0.14***	-0.05	-0.15***	-0.13***	-0.05	0.27***	0.09**	-0.05	0.26***	0.91				
13. Strong Religious Inf.	2.66	1.77	-0.07	-0.04	0.12**	0.09*	0.1**	0.03	-0.04	-0.05	-0.06	0.02	0.00	-0.12**	—			
14. Depl. Social Support	40.22	21.08	-0.1**	-0.13***	-0.14***	0.07*	0.07	0.22***	-0.02	0.06	-0.27***	0.06	-0.13***	-0.02	0.09*	0.94		
15. FU Post-depl. Soc. Sup	45.15	15.66	-0.33***	-0.44***	0.03	0.1**	0.11**	0.17***	0.18***	-0.21***	-0.3***	0.06	-0.42***	-0.08*	0.03	0.15***	0.72	
16. BL Resilience	75.32	27.05	-0.1**	-0.22***	-0.02	0.00	0.17***	0.12***	0.00	-0.1**	-0.34***	0.06	-0.11**	0.03	0.23***	0.3***	0.28***	0.95

Note. FU = follow-up, BL = baseline. Reliability estimates appear on the diagonal, as appropriate.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ , Statistical significance is based on an assumption of random sampling from the population.

health services in the past year. Baseline survey scales indicated significant anxiety-related symptoms for 20.1% (17.8 Navy, 27.1 Marine Corps) and depression-related symptoms for 34.0% (30.2 Navy, 41.81 Marine Corps).

Table 3-18 contains descriptive statistics for all the variables in the analysis. The majority of the risk and protective factors were significantly correlated with both depression and anxiety outcomes; the exceptions being: strong religious influence, unemployment, marital status, income, and gender (among those with FU anxiety). FU anxiety and depression were highly correlated ( $r = .50$ ). Scale reliabilities, shown on the diagonal where appropriate, were generally high.

Table 3-19 presents the hierarchical logistic regression results of FU anxiety and depression symptoms for both the full and reduced models. Demographic variable sets accounted for about 2% of the variance in FU anxiety in both the full and reduced models. Combat and other Service-related variable sets account for an additional 24% of the variance in FU anxiety in the full model and 17% in the reduced model, in each case this is net of the variance already accounted for by demographic variables. Risk factors account for the largest amount of variance in FU anxiety, “explaining” an additional 44% of the variance in the full model and an additional 51% in the reduced model. The risk factor accounting for most of this variance among the risk factors is the stress index, accounting for 36 to 43% of the remaining variance in anxiety in these models. Finally, protective factors account for about an additional 1% of the variance in anxiety remaining in both the full and reduced models after accounting for variance with demographic, combat/service, and risk factor variables. Including all four areas in the full model accounts for 72% of the variance in FU anxiety, while in the reduced model, these account for 70%.

**Table 3-19. Full and Reduced Model Hierarchical Regression Results (N = 764)**

Full Models			Reduced Models		
Nested Model <sup>a</sup>	R <sup>2</sup>	Effect Size (f <sup>2</sup> ) <sup>b</sup>	Nested Model <sup>a</sup>	R <sup>2</sup>	Effect Size (f <sup>2</sup> ) <sup>b</sup>
Anxiety Models					
D	0.0185	0.019	D	0.0149	0.015
D,C	0.2621	0.330	D,C	0.1843	0.208
D,C,R	0.7037	1.490	D,C,R	0.6927	1.654
D,C,R,P	0.7183	0.052	D,C,R,P	0.7037	0.037
Depression Models					
D	0.0227	0.023			
D,C	0.2198	0.253	C	0.1279	0.147
D,C,R	0.6936	1.546	C,R	0.6772	1.702
D,C,R,P	0.7469	0.211	C,R,P	0.7370	0.227

<sup>a</sup> (See Table 3-2) D = demographics, C = combat and service variables, R = risk factors, P = protective factors.

<sup>b</sup> Cohen's f<sup>2</sup> (Cohen, 1988) interpretation guidelines: >.02 = small, >.15 = medium, >.35 = large effect size.

In the models of FU depression, similar results are found. The demographic variable set accounted for about 2% of the variance in FU depression in the full model. The reduced model did not contain any demographic variables for the depression model. Combat and other Service-related variable sets account for an additional 20% of the variance in FU depression in the full model and 13% in the reduced model, beyond that variance accounted for by demographic variables. Again, risk factors account for the largest amount of variance in FU depression, “explaining” an additional 48% of the variance in the full model and 55% in the reduced model, net the variance already accounted for by demographic and combat/service variables. The risk factor accounting for the bulk of the variance is the stress index, accounting for 40 to 46% of the variance in depression in these models, net the variance already accounted for by demographic and combat/service variables. Finally, protective factors account for an additional 5% of the variance in depression in the full and 6% in the reduced model, net the variance already accounted for by demographic, combat/service and risk factor variables. Including all four areas in the full model accounts for 75% of the variance in FU depression, while in the reduced model these account for 74%.

Tables 3-20 and 3-21 show the bivariate and multiple logistic regression results. The fit statistics for the full and reduced multiple logistic models indicate that both models fit well for both outcomes. Pseudo R<sup>2</sup> statistics are 70 to 75% in all four models. In each outcome, the

reduced model accounted for nearly the same percentage of the variance in outcome as the full model did.



**Table 3-20. Summary of Logistic Regression Results for Full and Reduced Models of FU Anxiety (N = 764)**

Parameter	Category	DF	BV		Full		Reduced	
			B	OR	B	OR	B	OR
Intercept		1	.	.	-2.86	.	-2.90	.
Gender	Female	1	0.24	1.60	0.45	2.47	0.35	2.00
FU Invol. Unemployed	Yes	1	0.03	1.05	-0.29	0.56	.	.
FU Marital Status	Not married	1	-0.01	0.98	-0.14	0.76	.	.
FU Income		1	-0.05	0.95	0.04	1.29	.	.
Mil.-Related Injury	Yes	1	0.74	4.38	0.41	2.28	0.45	2.47
Combat Exposure		1	0.04	1.05	0.01	1.42	.	.
BL Anxiety or Depres.	Yes	1	0.90	6.05	0.70	4.05	0.64	3.61
Nonmilitary Injury	Yes	1	0.28	1.76	0.07	1.15	.	.
FU Stress Index		1	0.64	1.90	0.49	40.04	0.49	40.20
FU Risk-Tak/Sens-Seek		1	0.81	2.25	0.57	4.07	0.62	4.67
Strong Religious Inf.		1	-0.16	0.85	-0.28	0.37	.	.
Depl. Social Support		1	-0.02	0.98	0.00	1.12	.	.
FU Post-depl. Soc.Sup		1	-0.09	0.91	-0.05	0.23	-0.04	0.31
BL Resilience		1	-0.02	0.98	0.01	1.81	.	.

*Note.* FU = follow-up; BV = bivariate; DF = degrees of freedom; B = logistic regression coefficient; OR = odds ratio; BL = baseline.

Full model global test statistics are as follows: likelihood ratio  $\chi^2_{(14)} = 885.19$  ( $p < .0001$ ), score  $\chi^2_{(14)}$  statistic = 825.89 ( $p < .0001$ ), Wald  $\chi^2_{(14)} = 484.08$  ( $p < .0001$ ); Hosmer & Lemeshow goodness of fit  $\chi^2_{(8)} = 14.21$  ( $p = .0764$ ). For the reduced model these are likelihood ratio  $\chi^2_{(6)} = 851.87$  ( $p < .0001$ ), score  $\chi^2_{(6)}$  statistic = 793.70 ( $p < .0001$ ), Wald  $\chi^2_{(6)} = 479.69$  ( $p < .0001$ ); Hosmer & Lemeshow goodness of fit  $\chi^2_{(8)} = 10.66$  ( $p = .2217$ ). Nagelkerke's pseudo  $R^2$  for full model is .72 and for the reduced model is .70.

*Note.* OR Unit is the amount of change in the independent variable that the odds ratio estimate refers to. For continuous variables, this is set to 2 SDs (e.g., from 1 SD below to 1 SD above the mean). For binary variables, it is set at one and represents the change between the two categories. The reference category for FU Anxiety is not having symptoms suggestive of anxiety disorder.

**Table 3-21. Summary of Logistic Regression Results for Full and Reduced Models of FU Depression (N = 764)**

Parameter	Category	DF	BV		Full		Reduced	
			B	OR	B	OR	B	OR
Intercept		1	.	.	1.50	.	1.70	.
Gender	Female	1	-0.06	0.88	-0.17	0.71	.	.
FU Invol. Unemployed	Yes	1	0.20	1.49	-0.01	0.97	.	.
FU Marital Status	Not married	1	0.16	1.37	0.11	1.24	.	.
FU Income		1	-0.06	0.94	0.09	1.69	.	.
Mil.-Related Injury	Yes	1	0.48	2.63	0.20	1.49	0.24	1.62
Combat Exposure		1	0.04	1.04	0.01	1.53	.	.
BL Anxiety or Depres.	Yes	1	0.79	4.81	0.47	2.57	0.46	2.53
Non-military Injury	Yes	1	0.39	2.16	0.27	1.71	.	.
FU Stress Index		1	0.59	1.80	0.44	28.70	0.44	27.09
FU Risk-Tak/Sens-Seek		1	0.54	1.72	0.23	1.75	0.29	2.04
Strong Religious Inf.		1	-0.08	0.92	-0.01	0.97	.	.
Depl. Social Support		1	-0.02	0.98	0.00	0.99	.	.
FU Post-depl. Soc. Sup		1	-0.12	0.88	-0.07	0.10	-0.07	0.10
BL Resilience		1	-0.03	0.97	-0.01	0.52	-0.01	0.50

Note. FU = follow-up; BV = bivariate; DF = degrees of freedom; B = logistic regression coefficient; OR = odds ratio; BL = baseline.

Full model global test statistics are as follows: likelihood ratio  $\chi^2_{(14)} = 1,010.28$  ( $p < .0001$ ), score  $\chi^2_{(14)}$  statistic = 872.95 ( $p < .0001$ ), Wald  $\chi^2_{(14)} = 573.05$  ( $p < .0001$ ); Hosmer & Lemeshow goodness of fit  $\chi^2_{(8)} = 11.76$  ( $p = .1620$ ). For the reduced model these are likelihood ratio  $\chi^2_{(6)} = 982.97$  ( $p < .0001$ ), score  $\chi^2_{(6)}$  statistic = 857.04 ( $p < .0001$ ), Wald  $\chi^2_{(6)} = 572.77$  ( $p < .0001$ ); Hosmer & Lemeshow goodness of fit  $\chi^2_{(8)} = 3.76$  ( $p = .8780$ ). Nagelkerke's pseudo  $R^2$  for full model is .75 and for the reduced model is .74.

Note. OR Unit is the amount of change in the independent variable that the odds ratio estimate refers to. For continuous variables, this is set to 2 SDs (e.g., from 1 SD below to 1 SD above the mean). For binary variables, it is set at one and represents the change between the two categories. The reference category for FU Depression is not having symptoms suggestive of a depression disorder.

The logistic regression coefficients for bivariate regressions of each variable in the models with the two outcomes are provided and followed our expectations for the effect the independent variable should have on the dependent variable. A comparison of these coefficients with the full model coefficients demonstrates that some multicollinearity was likely still at work, as several coefficients switched signs; however, the reduced models contain no such cases of switching signs.

As shown in Table 3-20, the highest odds ratio in either multivariate model for FU anxiety, as well as in the bivariate regressions, is that for the FU stress index. The odds ratio of FU anxiety for someone who is two standard deviations higher on the stress index (close to the shift from having no stress reported to having stress in about four areas of one's life) than a comparison person is over 40 times higher in both models. Those with BL anxiety or depression symptoms and those with higher risk-taking or sensation-seeking have similar odds ratios and fall in the second or third place for odds ratio size, all close to 4.0. Gender is next in the full model, and having a military-related injury is next in the reduced model, both odds ratios between 2.0 and 2.5, with females and those with such injuries more likely to have symptoms of anxiety.

Table 3-21 contains the odds ratios from the full and reduced FU depression models, again with bivariate results included as well. The variables with the highest estimated odd ratios for FU depression agree substantially with the FU anxiety results. The FU stress index has an odds ratio around 27 in both models. Those having either had symptoms of depression or anxiety at BL, having a military-related injury, or reporting risk-taking have an odds ratio of about 2 of showing signs of depression at FU. Odds ratios for all four of these variables are roughly proportionate in size but somewhat smaller than respective estimates for the FU anxiety models.

Finally, since the stress index showed the greatest association with the reporting of anxiety or depression symptoms at FU, we further examined the components of that index. Table 3-22 shows the association between the FU anxiety and depression measures and the nine constituent components of the stress index. It reports the proportion of respondents reporting anxiety and depression symptoms at FU, conditional on whether they reported stress in a given stress index component. The strength of the effect of each stress area can be seen by the ratio of the two percentages, and the tetrachoric correlations have been included as a measure of association between the binary indicators of stress in an area and each of the binary FU outcomes. The rows of the table are ordered by the value of this measure of association for the FU anxiety indicator. The reader will note the associations for FU depression do not follow the same ranking.

These data show that, across the board, stress in any of these domains results in higher levels of anxiety and depression symptoms. The largest associations occur with stress in the mental health issues, family, health, and work stress domains, in that order. The largest associations with depression symptoms at FU are in the family, work, marital, mental health issues, and health domains. In these top-listed domains, the rates of anxiety symptoms at FU are

**Table 3-22. Relationship of Follow-Up Anxiety and Depression with Individual Stress Index Components**

Stress Area	Follow-Up Anxiety				Follow-Up Depression			
	Stress Absent (%)	Stress Present (%)	Assoc*	ASE	Stress Absent (%)	Stress Present (%)	Assoc*	ASE
Mental Health	14.60	57.29	0.61	0.031	31.69	67.30	0.47	0.034
Family	8.19	38.86	0.61	0.027	21.00	59.95	0.59	0.025
Health	12.33	44.72	0.56	0.029	28.40	60.96	0.47	0.030
Work	13.13	42.03	0.51	0.031	27.71	62.82	0.50	0.029
Marital	13.01	37.12	0.46	0.032	26.33	59.50	0.49	0.028
Financial	10.47	30.71	0.44	0.032	24.28	49.19	0.40	0.029
Unemployment	11.82	28.99	0.38	0.033	26.61	46.42	0.32	0.031
Legal	17.43	36.83	0.33	0.039	31.55	63.77	0.44	0.034
Death or Serious	14.90	30.43	0.32	0.035	30.24	47.96	0.28	0.032

Note. The measure of association is a tetrachoric correlation. ASE is the asymptotic standard error for the tetrachoric correlation.

Sample questions used in forming each stress area follow:

- **Mental Health Issues Stress:** Since leaving the military, how much stress did you experience from each of the following? Getting along with others
- **Family Stress:** During the past 12 months, how much stress did you experience in your family life?
- **Health Stress:** Since leaving the military, how much stress did you experience from each of the following? Problems obtaining appropriate/necessary health care
- **Work Stress:** During the past 30 days, how much stress did you experience at work?
- **Marital Stress:** Since leaving the military, how much stress did you experience from each of the following? Divorce or breakup
- **Financial Stress:** Since leaving the military, how much stress did you experience from each of the following? Problems with money
- **Unemployment Stress:** Since leaving the military, I have lost my job
- **Legal Stress:** Since leaving the military I have experienced stressful legal problems (for example, being sued or suing someone else).
- **Death or Serious Problem—Someone Close:** Since leaving the military I have experienced the death of someone close to me.
- Since leaving the military I have experienced a serious surgery or operation.

three to four times higher when stress in one of these areas is present as when absent, and for FU depression symptoms, the presence of stress increases them two to three times higher.

## **SECTION 4 DISCUSSION**

This study assessed the prevalence and incidence of mental health outcomes among Sailors and Marines who have recently transitioned from military service to civilian life and identified risk and protective predictors for these outcomes. To our knowledge, this is the first time a comprehensive longitudinal examination of stress and mental health indicators has been made in this highly vulnerable group.

Results of this longitudinal study revealed some interesting comparisons between BL and FU survey administrations. For example, the finding that a greater percentage of participants reported new PTSD symptoms at the time of FU (i.e., did not report PTSD symptoms at the time of the BL survey but did so in the FU survey) points to the often latent effects of PTSD, not immediately visible upon return from deployment or transition from Service. This finding supports the APA (2000) description of the delayed onset of PTSD (at least 6 months have passed between the traumatic event and the onset of symptoms) and addresses the need for ongoing surveillance of personnel who have undergone traumatic experiences during their military service. Also found were relatively higher prevalence rates of depressive and anxiety symptoms thus focusing the bulk of analyses on the bivariate and multivariate relationships of these 2 main outcomes.

Overall, these analyses found that although a substantial number of participants met criteria for new depression and anxiety after leaving the military, there was a slight decrease in current (past week) prevalence of both depression and generalized anxiety symptoms from pre-discharge to 1-year postdischarge. Nevertheless, baseline rates for both Navy and Marine Corps were much higher than those reported for troops returning from recent combat areas. Of particular note was the finding that half of transitioning Marines met screening criteria for depression symptoms. Rates for depression in the baseline survey among transitioning Marines were more than three times as high (i.e., 50.0%) as the 14.7% noted by Hoge et al. (2006) based on data collected from the official Post-Deployment Health Assessment, which uses only two questions from the Patient Health Questionnaire, and were twice the rates for anxiety (31.6% versus 15.7%). Although differences in the psychometric properties of the two screening instruments are likely to account for some variability in rates, such higher rates in personnel about to be discharged may be expected given that a larger proportion of those screening positive for a mental disorder leave the Service than those screening negative (Hoge et al., 2006), and because there is frequently a considerable lag between combat exposure and development of mental disorders (Andrews et al., 2007). This lag, which has been noted to extend 4 to 7 months

after injury in personnel who served in Iraq, has also been noted previously for depression among Marines (Grieger et al., 2006). The observed rates support the concern voiced in several previous reports (APA, 2007; Task Force) that many personnel may be first experiencing or admitting to problems upon their discharge from the military and that the transition process itself may be contributing to the development or exacerbation of mental health symptoms. Indeed, rates among both Sailors and Marines were about twice as high as those reported by Seal et al. (2009) for Iraq and Afghanistan veterans enrolled in VA health care, suggesting a potentially large number of symptomatic veterans who are not accessing military health resources.

The higher prevalence and incidence rates in Marine Corps TAP attendees relative to Navy TAP attendees is not surprising given the varying sociodemographic and operational exposure profile of the two groups. As shown in results from the baseline survey (Hourani et al., 2008), Marines reported higher levels of combat exposure and longer deployments than Navy personnel, and both combat and injury exposure remained important predictors of both anxiety and depression among former active duty military personnel after controlling for sociodemographic differences. Also seen at baseline and consistent with the civilian psychological literature, for example Agaibi and Wilson (2005), high levels of life event stressors, work stress, disability or poor perceived health, low personal social support, and low resilience had strong predictive associations with mental health outcomes. Not all these associations, however, continued in the current follow-up analysis. Although most studies have examined such risk factors for PTSD among military personnel (see Maguen, Suvak, & Litz, 2006), this study examined this larger set of both distal and proximal risk factors than previously examined in prospective studies of combat veterans (e.g., Larson, Highfill-McRoy, & Booth-Kewley, 2008; Wells et al., 2010), in addition to examining the more prevalent anxiety and depression outcomes. The addition of these risk factors accounted for approximately 50% of additional variance between those meeting screening criteria for anxiety or depression symptoms and those without, beyond the variance already accounted for by sociodemographic and combat and military-related injury/health. This result is consistent with a recent finding from a cross-sectional survey of Marines back from war, which found that deployment-related stressors, such as concerns or problems back home and lack of privacy, had a stronger association with PTSD than did combat exposure (Booth-Kewley, Larson, Highfill-McRoy, Garland, & Gaskin, 2010). Indeed, two-thirds of those reporting stress in the social domain reported depression symptoms, and in all but three stress domains, over half of those reporting the presence of that stress in their lives reported depression symptoms. Also of interest were the relatively high odds ratios for the risk-taking scale, indicating that those with high risk-taking and/or sensation-seeking scale scores were four times as likely to also meet criteria for generalized anxiety and twice as likely to meet

screening criteria for depression symptoms. Risk-taking behaviors may be a warning sign for mental health problems and could be used in programs designed to identify high-risk individuals for additional screening and intervention, especially because such behaviors may come to the attention of family and peers before coming to the attention of military health providers and may carry less of a help-seeking stigma than the more somatic or emotional symptoms of these disorders.

The present study also included a larger number of protective factors than other studies and examined their relative importance to demographic, Service-related, and other risk factors over time. Protective factors, including deployment social support, FU post-deployment social support, and BL resilience score, were shown to be modestly related to mental health outcomes of anxiety and depression, when they were forced in as a block at the last step of a logistic regression model.<sup>1</sup> Nevertheless, the final models with individual variables, each adjusted for the other variables in the model, indicate that post-separation social support has a strong protective influence against both anxiety and depression. Of interest was the relatively little impact of the resilience scores given renewed emphasis by military researchers in building resilience (Friedman, 2006; King, King, Fairbank, Keane, & Adams, 1998; U.S. Department of Defense Task Force on Mental Health, 2007). Strong social support appeared to be the more meaningful protective factor when other variables were taken into account and suggests that attempts to maximize social support during and following deployment may lead to improved outcomes in the future. An investigation of general social support, unrelated to deployment status, should be undertaken to gain a more global view of the effects of this construct, and programs aimed at bolstering social support should be implemented for transitioning military personnel.

#### **4.1.1 Limitations**

Several limitations of the current study should be noted. Although the sample was a purposive one and may not be representative of all transitioning Navy and Marine Corps personnel, the similarity of the sample distribution on key demographic variables to those of separating personnel obtained from the Career History Archival Medical and Personnel System (CHAMPS) database provides additional confidence in the findings. Along with this, the decision to participate in the baseline survey (55% response rate) and the decision to return the follow-up survey (38% response rate) should lead one to be cautious about generalizing these results beyond this sample. It should be noted, however, that the response rate for the baseline

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<sup>1</sup> We found the protective and noncombat/military risk factor blocks shared a great deal of the same variability in the two outcomes. This became evident when we tried reversing this risk factor block with the protective factor blocks in the hierarchical regression as a check and found the protective factors accounted for a larger amount of the variance than they had when added in last.

survey surpassed the mean response rate of 45% found for paper surveys by Shih & Fan (2008), and that the follow-up survey rate was slightly better than the 34% they found for Internet surveys. It should also be noted that the survey measures were all self-reported and may be subject to memory errors and that the screening instruments, although validated in other samples and used extensively in other military mental health research, cannot be equated with clinical diagnoses.

Despite these limitations, it is clear that a large number of transitioning military personnel are experiencing symptoms of relatively common psychological disorders, and that transitional services need to be alert to their psychological needs. Since separation counseling courses are mandated for Marines and used by a majority of Sailors, with the addition of a formalized routine screening, VA referral, and follow-up program, they could provide an opportunity to intervene programmatically in reducing the risk and psychologically protecting this highly vulnerable and growing population.

#### ***4.1.2 Recommendations for Future Research and Analyses***

Further research is needed to delve more deeply into the factors affecting transitioning military personnel. Our experience with the BL and FU survey administration for this research suggests that future endeavors should include additional survey content that may shed additional light on these factors. For example, research could include job type or category as an additional moderator of mental health outcomes, especially as related to deployment and other combat-related factors, as different operational demands associated with the type of military job performed may affect levels of stress and subsequent mental health. Similarly, more detailed information regarding the deployment cycle may provide a more robust representation of how deployment affects personnel. Knowledge of deployment recency, including length and theater of most recent deployment and whether the most recent deployment involved combat situations, would be helpful in evaluating the proximal relationship between deployment and the development of mental health problems.

Additionally, a more global assessment of social support, not only as related to deployment, may provide a more complete picture of the potential of this construct as a protective factor against mental health issues such as anxiety, depression, and PTSD.

#### **4.2 Next Steps**

As an immediate next step, an exploration of the development and implementation of additional stress management programs to maximize social support for post-deployment and transitioning personnel should be undertaken to facilitate the transition process for these



personnel. The TAP workshops currently mandated for all separating personnel would be an ideal venue for such programs, since these workshops are designed to teach the skills necessary for success in the civilian world and prepare transitioning personnel for the challenges they will face. The curriculum for these workshops includes a number of invaluable courses already; the addition of stress management and social support modules would further benefit participants in their preparation for civilian life and the stresses they may face there.

As observed from the current study, separating Marines report higher rates of mental health issues than their Navy counterparts; therefore, future research should focus on this population in particular to explore more fully the factors affecting these personnel. In-depth knowledge of additional factors affecting this population, especially as related to job type, deployment-related factors, and social support, could lead to the enhancement of existing policies and programs and the consideration of supplemental programs aimed at combating risk factors to the overall well-being of these personnel.

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