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Timing of Postcombat Mental Health Assessments

Paul D. Bliese, Kathleen M. Wright, Amy B. Adler, Jeffrey L. Thomas, and Charles W. Hoge
Walter Reed Army Institute of Research

When soldiers return from combat and peacekeeping operations, the United States and many NATO and Partnership for Peace countries conduct some form of postdeployment mental health assessment. To date, however, no research has been published examining changes in prevalence rates of mental health problems in the first several months after returning from combat duty. In this study, the authors examined the degree to which timing was related to reported prevalence rates of mental health problems in a matched sample of 509 US Army soldiers returning from combat in Iraq. Results showed significant increases in mental health problems at 120 days postdeployment relative to immediate reintegration. The findings are discussed in terms of providing mental health services to soldiers returning from combat.

Keywords: traumatic stress, deployment, assessment, military, policy

When soldiers return from combat and peacekeeping operations, the United States and many NATO and Partnership for Peace (PfP) countries, including Canada, Croatia, Germany, Lithuania, the Netherlands, Denmark, and the United Kingdom, conduct some form of postdeployment mental health assessment. The mental health assessments in specific countries evaluate combinations of depression symptoms, traumatic stress symptoms, alcohol problems, relationship problems, anger, and sleep problems (Bliese, Wright, Adler, & Thomas, 2004; Hacker Hughes, Wagner, Willkomm, & Smykala, 2004; Wright, Thomas, Adler, Ness, Hoge, & Castro, 2005). The purpose of these assessments is to facilitate health care delivery by increasing detection rates and making services easily accessible to service members. In many ways, the programs are analogous to civilian efforts to screen for mental health problems such as depression in primary care settings (Agency for Healthcare Research & Quality, 2002).

Unlike civilian screening efforts in primary care settings, however, the military health assessments are typically tied to a specific event—namely the deployment cycle. In the United States, for example, mental and physical health assessments are conducted at both predeployment and postdeployment. While these events are defined by actual departure and return dates, the optimal timing for when health assessments should be conducted has not been specifically studied. At no point is this timing issue more important for psychological service delivery than at postdeployment.

Although many NATO and PfP countries recognize the value of postdeployment assessments, there is no agreement as to optimal timing. One option is to conduct postdeployment assessment upon days of return. Conducting assessments at this early reintegration time can

Paul D. Bliese, Kathleen M. Wright, and Amy B. Adler, U.S. Army Medical Research Unit–Europe, Walter Reed Army Institute of Research; Jeffrey L. Thomas and Charles W. Hoge, Division of Psychiatry and Neuroscience, Walter Reed Army Institute of Research.

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Correspondence concerning this article should be addressed to Paul D. Bliese, Commander, U.S. Army Medical Research Unit-Europe, APO AE 09042. E-mail: paul.bliese@us.army.mil

help facilitate health care delivery for individuals who have had difficulties during the deployment, and may also serve as an early intervention for individuals who are likely to have trouble during the immediate reintegration period. Early in the Iraq war, the US Department of Defense (DoD) initiated a mental and physical health assessment program targeting the immediate reintegration period (US DoD, n.d.). This program, called the Post-Deployment Health Assessment (PDHA), is completed either in theater immediately before reintegration or within the first two weeks of reintegration. The PDHA assesses traumatic stress, depression, suicidal ideation, interpersonal conflict, and interpersonal aggressive ideation, as well as physical symptoms and environmental exposures. A significant portion of soldiers have been identified by the PDHA instrument as potential candidates for follow-up mental health evaluation (Hoge, Auchterlonie, & Milliken, 2006).

While assessments at immediate reintegration have merit, there may be several reasons to expect reported prevalence rates to be low during this time. First, the immediate reintegration period represents a significant transition from combat to garrison. Providers interviewing soldiers during this time have observed that soldiers often report a sense of relief about having returned home that may overshadow mental health symptoms. Second, at least in the case of the United States, soldiers may minimize symptom reporting because they typically take an extended period of leave soon after returning, and may be reluctant to report symptoms out of fear that medical treatment will interfere with taking time off.

Third, reported prevalence rates may be low at reintegration because certain symptom clusters may not be relevant. For instance, specific symptoms associated with posttraumatic stress disorder, such as hypervigilance, may be present but not distressing at the immediate reintegration time period. Months later, soldiers may find that symptoms of hypervigilance cause distress because they interfere with routine functioning. Similarly, individuals may not report relationship problems during the reintegration phase because of limited contact with spouses and significant others over the course of the deployment. In contrast, postreintegration provides more opportunities for interaction, which increases the likelihood that relationship problems will emerge particularly when families experience conflicting expectations and shifting family roles (Peebles-Kleiger & Kleiger, 1994; Wiens & Boss, 2006).

In sum, while questions about timing of postdeployment assessments are important for ensuring high-quality service delivery, there is a knowledge gap surrounding the course of symptom reporting in the months following return from combat. Furthermore, the literature that does exist on this topic is inconclusive. In one of the few empirical studies to mention timing, Hacker Hughes, Cameron, Eldridge, Devon, Wessely, and Greenberg (2005) reported UK combat veterans had lower rates of distress at one month postdeployment than did US combat veterans assessed by Hoge, Castro, Messer, McGurk, Cotting, and Koffman (2004) at three months' postdeployment. Hacker Hughes et al. (2005) suggested that this difference in rates may be due, in part, to when the assessments were conducted; however, the fact that Hacker Hughes et al. (2005) and Hoge et al. (2004) used samples with different deployment experiences makes it difficult to know the degree to which timing as opposed to other sample characteristics were responsible for these divergent findings. Other evidence suggesting a potential increase in symptom reporting over time comes from Epstein (1993). In a series of case studies, Epstein noted that some individuals exposed to trauma did not initially report symptoms. He hypothesized that avoidant symptoms sometimes interfere with diagnosis, and suggested posttraumatic stress disorder (PTSD) be assessed frequently following exposure to trauma to identify those who develop PTSD at a later point in time.

To date, we are aware of no published research that has specifically examined changes in prevalence rates of mental health problems in the first several months after returning from combat duty. As part of an ongoing program to develop valid and reliable mental health screening items and procedures (Wright et al., 2005), we examined the degree to which timing of postdeployment assessment was related to mental health problems reported by a matched sample of US Army soldiers returning from combat in Iraq.

Method

Procedure and Subjects

In late February and early March 2004, a mental health assessment was conducted with 1,578 US Army soldiers who had returned from a 12-month deployment to Iraq. The assessment occurred within the structure of a 7-day reintegration program conducted immediately upon soldiers' return. Soldiers were offered a mental health referral based on the results of the assessment. In the reintegration assessment, soldiers completed a survey instrument containing measures of PTSD, depression, general psychological distress, anger, relationship problems, and a self-referral item.

In July 2004, approximately 120 days after the reintegration week, a random sample of the original group of soldiers was reassessed with a survey instrument containing items identical to those used at immediate reintegration. The 120-day follow-up, like the reintegration assessment, was embedded within the context of a psychological screening program designed to facilitate the delivery of mental health services. This follow-up survey resulted in data from 509 soldiers who completed assessments at both time periods and who provided consent to use their data for research purposes (consent rate of 98.4%). In the results, the numbers of soldiers varies slightly around 509 because of missing data on specific measures. In addition, the analyses of relationship problems only included data from individuals in a relationship ($n = 199$). Subjects were primarily junior-enlisted men. Detailed demographics characteristics are provided in Table 1.

Table 1
Demographics of Study Participants (N = 509)

Characteristic	No. (%) of subjects
Rank	
Junior enlisted	300 (59.2)
Non-commissioned officers (NCOs)	167 (32.9)
Officers and warrant officers	40 (7.9)
Years in the military	
5 years or less	365 (72.7)
6–10 years	87 (17.3)
Over 10 years	50 (10.0)
Age	
18–20	99 (19.5)
21–25	247 (48.6)
26–30	100 (19.7)
31–35	38 (7.5)
36–40	21 (4.1)
41 and older	3 (0.6)
Gender	
Male	495 (97.4)
Female	13 (2.6)
Education	
Some school, high school diploma or graduate equivalency diploma	270 (55.3)
Some college	168 (34.4)
Bachelors degree	45 (9.2)
Graduate degree	5 (1.0)
Marital status	
Single (never married)	284 (57.5)
Married	178 (36.0)
Separated, divorced, or widowed	32 (6.5)
Ethnicity	
White	341 (67.5)
Hispanic	67 (13.3)
African American/Black	50 (9.9)
Other	35 (6.9)
Asian	12 (2.4)

Note. Demographics are from 3-month postdeployment follow-up, July 2004.

Measures

PTSD symptoms were assessed using the Posttraumatic Stress Disorder Checklist (PCL; Weathers, Litz, Huska, Herman, & Keane, 1993). The PCL is composed of 17 symptoms that parallel the diagnostic criteria outlined in the *Diagnostic and Statistical Manual of Mental Disorders, 4th edition* (*DSM–IV*; American Psychiatric Association, 1994). Each item was rated on a five-point Likert-type scale (*not at all* to *extremely*). Results were scored using a broad cutoff of 44, as recommended by Blanchard, Jones-Alexander, Buckley, and Forneris (1996), and a strict cutoff of 50 as recommended by Weathers et al. (1993).

Depression was measured using the Patient Health Questionnaire for Depression (PHQ-D; Spitzer, Kroenke, & Williams, 1999), a nine-item scale scored with four response options (*not at all* to *nearly every day*). The cutoff was five symptoms present at least more than half the days during the past two weeks, with at least one of the five symptoms being either depressed mood or anhedonia as recommended by Spitzer et al. and consistent with *DSM–IV* criteria. The PHQ-D has been validated in primary care sam-

ples (Spitzer et al., 1999) and in military epidemiological surveys (Hoge et al., 2004).

General psychological distress was measured using the K6 (Kessler et al., 2002), a screening scale validated in epidemiological studies. The K6 is comprised of six items rated on a five-point scale (*none of the time* to *all of the time*). Scale scores range from 0 to 24, with a cutoff of 13 indicating significant clinical problems as recommended by Kessler and colleagues.

Along with these established scales, the assessment instrument also contained a three-item scale measuring anger problems validated by the authors, to include "becoming so angry that you have broken things," "being on the verge of losing control," and "flew off the handle for no good reason." On the anger scale, endorsement of at least one out of the three at the "sometimes" or more frequent level was considered a positive screen. In two blind validation studies, the anger scale has shown psychometrically acceptable sensitivity values of 0.74 and 0.85 and specificity values of 0.86 and 0.79 when compared to results from structured clinical interviews (Bliese et al., 2004).

In addition, the assessment instrument contained a single item asking whether the soldier was experiencing a relationship problem which was scored with a "Yes/No" response option. Finally, a single item was included asking whether the soldier wished to speak with a counselor; a "Yes/No" response option was used.

Results

A comparison of individuals scoring above (positive) and below (negative) cutoff values for each measure across time is presented in Table 2. Reports of mental health problems were higher at 120 days than at the immediate reintegration period. The reported prevalence rates, with the exception of relationship problems, were 2 to 5 times higher at 120 days. To test the statistical significance of the difference across time, a matched comparison analysis using McNemar's χ^2 test with continuity correction was conducted. All differences were significant with the exception of relationship problems. Notice, however, that the smaller sample size for relationships problems may account for the lack of statistical significance. The findings associated with changes in anger problems are particularly revealing. Not only were anger problems fairly common during reintegration (8.64%), they also more than doubled at 120 days (19.44%) resulting in the most commonly reported set of symptoms. The second most commonly reported problem at 120 days was relationship problems.

Analyses also examined shifts in overall cutoff status from reintegration to 120 days postreintegation. Soldiers were considered to exceed overall cutoff if they scored positive on (a) PTSD–broad criteria, (b) depression, (c) general distress, (d) anger problems, or (e) request to speak to a counselor. Relationship problems were omitted to maximize the sample size. The sample providing complete data on all dimensions for both times was 481. At reintegration, 51 (10.6%) of the soldiers were positive on at least one dimension. In contrast, at 120 days, 109 (22.7%) were positive on at least one dimension. The majority of soldiers (n = 356

Table 2
Prevalence Rates Across Time

	Immediate reintegration		120 days' postreintegration		McNemar test	
Traumatic stress	Values (positive/negative)	Percentage	Values (positive/negative)	Percentage	χ^2	p
PCL-50: strict definition	7/496	1.39	24/475	4.81	8.036	.005
PCL-44: broad definition	15/488	2.98	42/457	8.42	13.587	.000
Depression (Patient Health Questionnaire)	5/502	0.99	26/478	5.16	16.000	.000
General distress (K6)	4/503	0.79	24/479	4.77	15.042	.000
Anger scale	44/465	8.64	97/402	19.44	36.000	.000
Relationship problems	20/170	10.05	30/169	15.08	3.375	.066
Want to see counselor	10/499	1.96	25/484	4.91	6.323	.012

Note. PCL = Posttraumatic Stress Disorder Checklist.

or 74.0%) did not exceed cutoffs at either time whereas 35 (7.3%) soldiers exceeded cutoff at both times, suggesting a chronic symptom course. In terms of changes in cutoff status over time, 16 (3.3%) soldiers exceeded cutoff at reintegration but did not at 120 days, suggesting a course of recovery, and 74 (15.4%) soldiers did not exceed cutoff at reintegration but did at 120 days, suggesting a delayed symptom course.

Discussion

This study examined changes in reported psychological symptoms in a matched sample of US military personnel at two points in time following a year-long combat deployment. Results showed that rates of psychological symptom reporting were significantly higher at 120 days' postdeployment than at immediate reintegration. The increase is a function of a low percentage of soldiers who show recovery across time (3.3%) and a large percentage of soldiers who were initially nonsymptomatic but become symptomatic at the latter time (15.4%).

Specific rates of mental health problems reported in this study may not generalize to other military samples. The data in the current study were collected in one military unit, and psychological symptoms often vary across units as a function of combat exposure (Hoge et al., 2004), as well as social and work-related factors such as cohesion and leadership (Bliese & Jex, 2002). Thus, reported prevalence rates in the current sample cannot be considered representative of US Army soldiers who have served in Iraq. Nonetheless, the increase in rates across time is congruent with other research and is likely to generalize to other military samples.

Placing Results in Context

Based on the results from the current study as well as findings reported by Hacker Hughes et al. (2005), it appears that the immediate reintegration period is associated with relatively low reported prevalence rates. Several months post reintegration, however, reported prevalence rates increased and mirrored the results from Hoge et al. (2004). While the exact reasons for the increase are unknown, the findings are consistent with Epstein's (1993) observation that some individuals exposed to traumatic events do not initially report symptoms, suggesting that the increase over time may generalize to nonmilitary populations.

The length of the "immediate reintegration period" where prevalence rates would be expected to be low is unknown; however, circumstantial evidence suggests that this period may extend up to one month post deployment. Recall that Hacker Hughes et al. (2005) reported levels of traumatic stress at the 1-month period to be approximately 2%. This rate is comparable to the traumatic stress rates of 1% to 3% observed during reintegration in the current study. Clearly, additional research is needed; nonetheless, based on the evidence it seems reasonable to expect that the prevalence rates of reported symptoms may be low for up to a month postreintegration.

At first glance, the observation that symptom reporting increased at 120 days postdeployment may seem incongruent with other research on the emergence of trauma symptomatology. For instance, Bonanno (2005) provides a prototypical trajectory of recovery following trauma in which impairment is initially high and then decreases 1 to 2 years posttrauma. Longer-term studies of combat veterans also report symptom declines over time. For example, Solomon (1989) found that combat veterans, even those initially diagnosed with Combat Stress Reaction, reported fewer PTSD symptoms over the course of three years following a combat deployment. Thus, while the long-term expectation is for symptom reports to decrease, the research gap the current study addresses is to delineate patterns of symptom reporting in the initial six-month period. In this period, at least for US Army soldiers, the pattern reflects increased symptom reporting and highlights the need to time psychological assessment and services appropriately.

In terms of symptom trajectories, the present study only provides data from two points in the postdeployment phase and does not identify whether the 120-day postdeployment symptom levels represent a peak in symptom reporting. It is possible that symptom reporting peaks prior to 120 days or after 120 days. It is also likely that symptom trajectories vary for different populations as a function of postcombat experiences. For instance, at the 4-month period a unit expecting to return to combat within 6 months may show different symptom patterns than a unit expecting to remain in garrison. Future

research needs to assess the trajectory of symptom reporting in the months following combat and determine how time and other potential predictors relate to symptom reports.

Implications for Service Delivery

Prevalence estimates of mental health problems in postcombat veterans suggest that PTSD and other disorders are significant problems for military populations (Dohrenwend et al., 2006; Hoge et al., 2004; Jordan et al., 1991). Dohrenwend et al. (2006) estimated that 18.7% of Vietnam veterans had developed war-related PTSD, and Hoge et al. (2004) estimated between 15.6 and 17.1% of Iraq War veterans had developed symptoms of PTSD, depression, or anxiety. These rates illustrate the significant mental health consequences of combat and the need for early identification of symptoms and appropriate service delivery and treatment.

There are several considerations for creating effective service delivery for military personnel postcombat. Individuals need to be identified through some form of assessment, and this assessment needs to be timed to match the emergence of symptoms. Indeed, based in part upon the results presented here, the US DoD modified their postdeployment health assessment program (PDHA) by mandating an additional assessment, the postdeployment health reassessment (PDHRA), between three and six months' postdeployment (Assistant Secretary of Defense for Health Affairs, 2005).

One goal of the PDHRA is to identify individuals who require follow-up evaluation and to facilitate access to mental health care. In order to ensure mental health care is provided to those in need, adjustment problems other than traditional psychiatric disorders, such as PTSD, anxiety, or depression, should also be assessed. For example, as the present study demonstrated, many soldiers reported anger and relationship problems (see also McCarroll et al., 2000). Consequently, programs should ensure that these kinds of adjustment problems are addressed in the assessment and service delivery system. Likewise, while not systematically assessed in the current study, evidence also suggests that sleep problems are common in the months following reintegration (Bliese, Wright, Adler, Hoge, & Prayner, 2005). Given the comorbidity between sleep problems and other mental health problems and given the fact that soldiers appear to find low stigma associated with reporting sleep problems, we have recommended elsewhere (Bliese et al., 2005) that practitioners consider assessing sleep as part of a comprehensive postdeployment health assessment.

Ideally, large-scale assessment programs need to assess relevant clinical domains and also use cut-off scores that are appropriate for the population. The DoD's PDHRA program, developed in part from the findings in this study, covers the key clinical domains (Wright et al., 2005) and incorporates instruments validated by Army researchers (Bliese et al., 2005). Recent work by Wright, Bliese, Thomas, Adler, Eckford, and Hoge (in press) has shown that assessments cannot simply rely on self-referral items or short distress measures. In both cases, these simple solutions lack the necessary sensitivity to be effective. Rather the approach of using validated, multidimensional scales combined with systematic interviews covering multiple domains for those who exceed criterion on any single dimension appears to be the most effective screening strategy (Bliese et al., 2005; Wright et al., in press).

Finally, in terms of service delivery the results provide guidance as to when postcombat transition outreach programs should be implemented. The US Army has an active applied research program developing and testing soldier transition products such as postcombat debriefing and Battlemind training (Adler et al., 2006). To optimize the efficacy of these interventions, they need to be targeted at the appropriate time postcombat. The results of the present study suggest that such early interventions may be most effective about 3 months' postdeployment. Research on early intervention programs can systematically examine the question of timing in order to develop effective support services in helping soldiers transition from combat to home.

In all, the efforts to provide multiple mental health assessments and early interventions at different times during postdeployment have led to a large scale, systematic outreach program. This kind of program development represents a commitment to make mental health services accessible to service members returning from Iraq and Afghanistan at a time when the services are needed most. In addition, future efforts must narrow the gap between individuals re-

porting symptoms and their motivation to seek care as observed in this study and in others, such as Hoge et al. (2004). Many individuals reported significant symptoms yet few requested to speak with a counselor. In part, this reluctance may reflect concerns about stigma associated with seeking mental health care. While there is a lack of empirical evidence on how to reduce stigma, changes in organizational policies, assessment strategies and active early outreach services have the potential to minimize stigma. For example, one by-product of institutionalizing mental health assessment and outreach may be a reduction in stigma. In this way, assessment and early intervention programs can facilitate proactive service delivery for military personnel and others in high-risk occupations who are exposed to potentially traumatic events.

References

Adler, A. B., Castro, C. A., McGurk, D., Bliese, P. D., Wright, K. M., & Hoge, C. W. (2006, November). *Post-deployment interventions to reduce the mental health impact of combat deployment to Iraq: Public health policies, psychological debriefing and battlemind training.* Paper presented at the International Society for Traumatic Stress Studies, Hollywood, CA.

Agency for Healthcare Research and Quality. (2002). *Screening for depression: Recommendations and rationale.* Retrieved May 30, 2002, from http://www.ahrq.gov/clinic/3rduspstf/depression/depressrr.htm

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Assistant Secretary of Defense for Health Affairs. (2005, March 10 memorandum). Post-deployment health reassessment. Retrieved August 25, 2005, from http://www.ha.osd.mil/policies/2005/05–011.pdf

Blanchard, E. B., Jones-Alexander, J., Buckley, T. C., & Forneris, C. A. (1996). Psychometric properties of the PTSD Checklist (PCL). *Behaviour Research and Therapy, 34,* 669–673.

Bliese, P. D., & Jex, S. M. (2002). Incorporating a multilevel perspective into occupational stress research: Theoretical, methodological, and practical implications. *Journal of Occupational Health Psychology, 7,* 265–276.

Bliese, P., Wright, K., Adler, A., Hoge, C., & Prayner, R. (2005). Post-deployment psychological screening: Interpreting and scoring DD Form 2900 (U.S. Army Medical Research Unit–Europe. Research Report 2005–003). Heidelberg, Germany: USAMRU-E. Retrieved July 9, 2007, from http://www.usamru-e.hqusareur.army.mil/PDHRA%20Research%20Report%20%202005-003.pdf

Bliese, P., Wright, K., Adler, A., & Thomas, J. (2004). Validation of the 90 to 120 day post-deployment psychological short screen (U.S. Army Medical Research Unit–Europe. Research Report 2004–002). Heidelberg, Germany: USAMRU-E. Retrieved July 9, 2007, from http://www.usamru-e.hqusareur.army.mil/Short%20Screen%20Development%20and%20Validation%20for%20USAREUR%20(with%20Appendices).pdf

Bonanno, G. A. (2005). Resilience in the face of potential trauma. *Current Directions in Psychological Science, 14,* 135–138.

Dohrenwend, B. P., Turner, J. B., Turse, N. A., Adams, B. G., Koenen, K. C., & Marshall, R. (2006). The psychological risks of Vietnam for US veterans: A revisit with new data and methods. *Science, 313,* 979–982.

Epstein, R. S. (1993). Avoidant symptoms cloaking the diagnosis of PTSD in patients with severe accidental injury. *Journal of Traumatic Stress, 6,* 451–458.

Hacker Hughes, J., Cameron, F., Eldridge, R., Devon, M., Wessely, S., & Greenberg, N. (2005). Going to war does not have to hurt: Preliminary findings from the British deployment to Iraq. *British Journal of Psychiatry, 186,* 536–537.

Hacker Hughes, J. G., Wagner, A., Willkomm, B., & Smykala P. (2004). NATO Research Task Group 20, Stress and Psychological Support in Modern Military Operations: Clinical Sub-Group Initial Report. RTO-TR-HFM-081, Brussels, Belgium.

Hoge, C. W., Auchterlonie, J. L., & Milliken, C. S. (2006). Mental health problems, use of mental health services, and attrition from military service after returning from deployment to Iraq or Afghanistan. *Journal of the American Medical Association, 295,* 1023–1032.

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

Jordan, B. K., Schlenger, W. E., Hough, R., Kulka, R. A., Weiss, D., Fairbank, J. A., et al. (1991). Lifetime and current prevalence of specific psychiatric disorders among Vietnam veterans and controls. *Archives of General Psychiatry, 48,* 207–215.

Kessler, R. C., Andrews, G., Colpe, L. J., Hiripi, E., Mroczek, D. K., Normand, S. L. T., et al. (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine, 32,* 959–976.

McCarroll, J. E., Ursano, R. J., Liu, X., Thayer, L., E., Newby, J. H., Norwood, A. E., et al. (2000). Deployment and the probability of spousal aggression by US Army Soldiers. *Military Medicine, 165,* 41–44.

Peebles-Kleiger, M. J., & Kleiger, J. H. (1994). Reintegration stress for Desert Storm families: Wartime deployments and family trauma. *Journal of Traumatic Stress, 7,* 173–194.

Solomon, Z. (1989). Psychological sequelae of war: A 3-year prospective study of Israeli combat stress reaction casualties. *The Journal of Nervous and Mental Disease, 177,* 342–346.

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

U.S. Department of Defense. Enhanced post-deployment health assessment process (DD Form 2796). Retrieved August 25, 2006, from http://www.pdhealth.mil/dcs/dd_form_2796.asp

Weathers, F. W., Litz, B. T., Herman, D. S., Huska, J. A., & Keane, T. M. (1993). *The PTSD checklist-civilian version (PCL-C*). Boston, MA: National Center for PTSD.

Wiens, T. W., & Boss, P. (2006). Maintaining family resiliency before, during, and after military separation. In C. A. Castro, A. B. Adler, & T. W. Britt (Eds.), *Military life: The psychology of serving in peace and combat, Volume III: The military family* (pp. 13–38). Westport, CT: Praeger Security International.

Wright, K. M., Bliese, P. D., Thomas, J. L., Adler, A. B., Eckford, R. D., & Hoge, C. W. (in press). Contrasting approaches to psychological screening with U.S. combat soldiers. *Journal of Traumatic Stress.*

Wright, K. M., Thomas, J. L., Adler, A. B., Ness, J. W., Hoge, C. W., & Castro, C. A. (2005). Psychological screening procedures for deploying U.S. Forces. *Military Medicine, 170,* 555–562.

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