Getting Beyond “Don’t Ask; Don’t Tell”: an Evaluation of US Veterans Administration Postdeployment Mental Health Screening of Veterans Returning From Iraq and Afghanistan

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High levels of exposure to combat have characterized the conflicts principally in Iraq and Afghanistan—Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Improvised explosive devices and frequent, unexpected mortar attacks have brought the “front line” to most OIF and OEF military service personnel.1 In the Vietnam and Persian Gulf wars, level of combat exposure was strongly associated with posttraumatic stress disorder (PTSD), depression, and substance use disorders.2,3 Similarly, an epidemic of mental health disorders is emerging among veterans of OIF and OEF.4,5 Early intervention with evidence-based mental health treatment has been shown to prevent chronic mental illness and associated disability.6 Mental health screening of combat veterans has the potential to increase early detection of symptoms and early intervention.

Since World War I, the US military has conducted mass mental health screening primarily to exclude psychologically vulnerable recruits from service, yet these programs have failed to reduce the incidence of psychological casualties.7 This experience, coupled with high rates of psychiatric disorders in the aftermath of the Vietnam and Persian Gulf wars, shifted the focus of screening to the detection of mental health symptoms during and after deployment.8 Recent reports have indicated that service members are more likely to report mental health problems 3 to 4 months after returning from deployment, and delayed presentations of mental health disorders have been documented years after military service.9,10 Accordingly, in June 2004, the Veterans Administration (VA) issued a national directive to initiate the Afghan and Iraq Post-Deployment Screen.11 The screen consists of brief, previously validated instruments to detect symptoms of PTSD, depression, and high-risk alcohol use among veterans of OIF and OEF who seek VA healthcare. Veterans Administration clinicians are expected to complete the screen and to assess whether veterans who meet screening criteria for depression and high-risk alcohol use require a mental health referral. Veterans Administration clinicians are encouraged to refer patients who meet screening criteria for PTSD for further mental health assessment and treatment.

Clinicians at 1 VA medical center and its affiliated community-based clinics were encouraged to refer Iraq and Afghanistan veterans who met screening criteria for PTSD, depression, or high-risk alcohol use to a VA mental health clinic. Multivariate methods were used to determine predictors of screening, the proportions who screened positive for particular mental health problems, and predictors of VA mental health clinic attendance.

Objectives. We sought to evaluate outcomes of the Veterans Administration (VA) Afghan and Iraq Post-Deployment Screen for mental health symptoms.

Methods. Veterans Administration clinicians were encouraged to refer Iraq or Afghanistan veterans who screened positive for posttraumatic stress disorder, depression, or high-risk alcohol use to a VA mental health clinic. Multivariate methods were used to determine predictors of screening, the proportions who screened positive for particular mental health problems, and predictors of VA mental health clinic attendance.

Results. Among 750 Iraq and Afghanistan veterans who were referred to a VA medical center and 5 associated community clinics, 338 underwent postdeployment screening; 233 (69%) screened positive for mental health problems. Having been seen in primary care (adjusted odd ratio [AOR]=13.3; 95% confidence interval [CI]=8.31, 21.3) and at a VA community clinic (AOR=3.28; 95% CI=2.03, 5.28) predicted screening. African American veterans were less likely to have been screened than were White veterans (AOR=0.45; 95% CI=0.22, 0.91). Of 233 veterans who screened positive, 170 (73%) completed a mental health follow-up visit.

Conclusions. A substantial proportion of veterans met screening criteria for co-occurring mental health problems, suggesting that the VA screens may help overcome a “don’t ask, don’t tell” climate that surrounds stigmatized mental illness. Based on data from 1 VA facility, VA postdeployment screening increases mental health clinic attendance among Iraq and Afghanistan veterans. (Am J Public Health. 2008;98:714–720. doi:10.2105/AJPH.2007.115519)
Symptoms of depression are assessed in the VA postdeployment screen with the 2-item Patient Health Questionnaire, which screens for depressed mood and anhedonia (little interest or pleasure in doing things). A “yes” answer to either question constitutes a positive screen for depression. In a sample of veterans seen in primary care, the 2-item Patient Health Questionnaire was found to have a sensitivity of 0.96 and specificity of 0.57. The 4-item Alcohol Use Disorders Identification Test assesses high-risk alcohol use. A score of 4 or more points for men and 3 or more points for women is considered a positive screen. In a large primary care practice, these thresholds resulted in a sensitivity of 0.86 among men and 0.73 among women and a specificity of 0.89 among men and 0.91 among women.

**Study Population**

From June 1, 2004, through September 30, 2006, 1178 veterans with military service separation dates after September 11, 2001, presented for care to a VA medical center or one of its 5 associated VA community-based clinics. Because our aim was to assess predictors and clinical outcomes of postdeployment screening among OIF and OEF veterans, we excluded from the final study population veterans who denied prior military service in Iraq, Afghanistan, or surrounding regions (n=358) and those who were not included in the VA National OIF/OEF Roster database (n=42). Further, we excluded 5 veterans who were missing data on each of the 3 individual screens and 23 veterans whose initial VA visit was within 90 days of the study end date, which allowed inadequate follow-up time. Consequently, the final study population consisted of 750 OIF or OEF veterans.

**Source and Definitions of Data Used**

The Veterans Health Information Systems and Technology Architecture database was used to extract postdeployment screen results for symptoms of depression, PTSD, and high-risk alcohol use, and the date of and specific clinic in which postdeployment screening occurred. The Veterans Health Information Systems and Technology Architecture database was also used to determine the date when an initial mental health clinic visit was scheduled and the date when an initial mental health visit occurred. A mental health clinic visit was defined as a clinical visit to any mental health, alcohol, or substance abuse clinic at the medical center or associated VA community-based outpatient clinics. We defined our outcome as mental health clinic visits scheduled within 30 days and completed within 90 days of the postdeployment screen date to maximize the likelihood that scheduling and appointment attendance were related to the postdeployment screening program. In addition, to allow informal comparisons of all mental health follow-up visits between veterans who were screened and not screened, we determined the number of all mental health visits beyond 90 days of screening, although these visits may not have been related to postdeployment screening. Local VA Health Information Systems and Technology Architecture data were linked to the VA National OIF/OEF Roster to identify and confirm veterans’ OIF or OEF military service. In addition, data derived from the VA National Patient Care Database were used to augment and confirm local sociodemographic, military service, and clinical visit information.

**Statistical Analyses**

This was a retrospective descriptive study. Predictors of having received postdeployment screening were evaluated with a multivariate logistic regression model adjusted for gender, race/ethnicity, age, and other predictor variables associated with postdeployment screening in univariate analysis. After we determined the proportion of OIF and OEF veterans who screened positive for symptoms of single or comorbid PTSD, depression, or high-risk alcohol use, we determined the proportion (screened vs unscreened and screen-positive vs screen-negative) who were scheduled for and completed a mental health appointment within 30 and 90 days of postdeployment screening, respectively. Among screen-positive veterans without a VA mental health clinic visit prior to screening, multivariate logistic regression analysis was used to determine whether screening positive for specific mental health symptoms was independently associated with completion of 1 or more follow-up VA mental health clinic visits. All analyses were conducted with Stata software version 8.2 (StataCorp LP, College Station, TX).
RESULTS

Clinicians at 1 VA facility initiated the VA Afghan and Iraq Post-Deployment Screen for 748 of the 1178 (64%) veterans for whom the screening instrument appeared in the electronic medical record triggered by their post–September 11, 2001, service separation dates. Of these, 358 (48%) of the 748 veterans denied prior OIF or OEF military service, and thus, their screens were terminated. Of the 750 OIF or OEF veterans in the final study population, 11% were women, 35% were racial/ethnic minorities, the median age was 27 years (range = 19–60 years), and 41% were veterans of the US National Guard or Reserve forces. The majority (85%) had been seen primarily at the VA medical center, and 74% had attended 4 or more VA outpatient visits during the study period.

Postdeployment Screening

Of the 750 OIF or OEF veterans who presented for VA outpatient care during the study period, 338 underwent postdeployment screening (Figure 1). The median time to postdeployment screening from service separation was 9 months (IQR = 4–16 months) and the median time to screening from the first VA outpatient visit was 29 days (IQR = 0–175 days). The majority (73%) was screened during a VA primary care medical visit, 17% at a mental health visit, 9% at other outpatient visits (e.g., dental), and 1% at a social services visit.

Postdeployment screening was more likely in veterans who had a primary care visit versus other settings (72% vs 12%; adjusted odds ratio [AOR] = 13.3; 95% confidence interval [CI] = 8.31, 21.3) and for those seen at a VA community clinic rather than at the medical center (87% vs 37%; AOR = 3.56; 95% CI = 1.78, 7.11). African American veterans of OIF or OEF were less likely to be screened than were White veterans (29% vs 49%; AOR = 0.45; 95% CI = 0.22, 0.91) (Table 1).

\[ \text{TABLE 1—Predictors of Postdeployment Mental Health Screening Among Veterans of Operation Iraqi Freedom and Operation Enduring Freedom (n = 645) Seen at the San Francisco Veterans Administration Medical Center and 5 Associated Community Clinics: June 1, 2004, to September 30, 2006} \]

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Not Screened, No. (%)</th>
<th>Screened, No. (%)</th>
<th>AOR (95% CI)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>White (Ref)</td>
<td>213 (51)</td>
<td>207 (49)</td>
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<tr>
<td>Hispanic</td>
<td>54 (61)</td>
<td>34 (39)</td>
<td>0.83 (0.44, 1.54)</td>
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<tr>
<td>Black</td>
<td>49 (71)</td>
<td>20 (29)</td>
<td>0.45 (0.22, 0.91)</td>
<td>.03</td>
</tr>
<tr>
<td>Other</td>
<td>40 (59)</td>
<td>28 (41)</td>
<td>0.83 (0.42, 1.65)</td>
<td>.60</td>
</tr>
<tr>
<td>Facility type</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>VA medical center (Ref)</td>
<td>343 (63)</td>
<td>201 (37)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>VA community clinic</td>
<td>13 (13)</td>
<td>88 (87)</td>
<td>3.56 (1.78, 7.11)</td>
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<td>Any visits to primary care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No (Ref)</td>
<td>257 (88)</td>
<td>36 (12)</td>
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<tr>
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<td>126 (31)</td>
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<td>69 (30)</td>
<td>163 (70)</td>
<td>3.28 (2.03, 5.28)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

Notes. AOR = adjusted odds ratio; CI = confidence interval; VA = Veterans Administration. The population size was reduced from 750 to 645 to include only veterans with nonmissing values for study variables. In addition to the predictor variables shown here, the multivariate model was adjusted for age, gender, and total number of visits to the VA medical center or associated community clinics.

Results of Postdeployment Screening

Of the 338 individuals who were screened, the majority, 233 (69%), screened positive for 1 or more mental health disorders (Figure 1); most (61%) screened positive for co-occurring mental health symptoms. A positive screen for PTSD was the most common, occurring in 171 (50%) of all veterans screened and in 73% of those with positive screens (Figure 2). Of note, after June 2005 when the threshold for a positive PTSD screen increased from 2 to 3 items positive
out of 4 items, there was a moderate decrease (from 58% to 47%; \(P = .05\)) in the proportion who met criteria for a positive PTSD screen. A positive screen for PTSD most commonly co-occurred with a positive screen for depression (30%), followed by the triad of positive screens for PTSD, depression, and high-risk alcohol use (19%; Figure 2). Overall, of screen-positive OIF and OEF veterans, 59% screened positive for depression, and 46% screened positive for high-risk alcohol use.

### Mental Health Referrals and Appointments

As shown in Figure 1, of the 233 OIF or OEF veterans with 1 or more positive screens, 107 (46%) had a VA mental health clinic visit scheduled within 30 days of the screen and about half of these, or 24% of veterans who screened positive, completed a scheduled mental health visit within 90 days of the screen date. Overall, of the 338 veterans who underwent postdeployment screening, 56 completed a scheduled mental health appointment, most likely as a result of screening, compared with 30 veterans who completed a mental health visit within 90 days of screening despite not having been scheduled for an appointment (\(n = 24\)) or despite having screened negative (\(n = 6\)). When the follow-up period was extended beyond 90 days of screening, 73% of screen-positive veterans completed a mental health appointment any time during the study period compared with 32% of veterans who screened negative or who were not screened at all (Figure 1).

### Predictors of Mental Health Appointments After Screening

After the exclusion of veterans with mental health visits prior to postdeployment screening, multivariate analyses adjusted for age, race/ethnicity, gender, VA facility type, number of VA visits, and visits to primary care revealed that veterans who screened positive for PTSD and depression were independently more likely to complete a follow-up mental health visit within 90 days of screening. There was no significant association between screening positive for high-risk alcohol use and mental health appointment attendance. The same analysis also revealed that the likelihood of a follow-up mental health visit within 90 days of screening was increased for veterans who were seen in a VA community clinic versus the medical center (AOR = 6.08; 95% CI = 1.56, 23.6) and for those seen in primary care versus another outpatient setting (AOR = 19.4; 95% CI = 1.30, 290).

### DISCUSSION

We sought to describe the VA postdeployment screening program at 1 VA medical center and its 5 associated community-based clinics.
clinics from 2004 to 2006. We also sought to determine whether screening facilitated follow-up mental health assessment for veterans of OIF or OEF who screened positive for mental health disorders. Our results indicated that a substantial proportion of OIF and OEF veterans met screening criteria for co-occurring mental health problems, which suggested that the VA screens may help overcome a “don’t ask; don’t tell” climate that surrounds stigmatized mental illness. Moreover, veterans of OIF or OEF who screened positive were far more likely than were veterans who screened negative or who were not screened at all to attend follow-up mental health appointments within 90 days of screening.

**Veterans Administration Postdeployment Screening Process**

Based on data from 1 VA facility, we found that postdeployment screening was administered to the minority of OIF and OEF veterans and it was administered differentially on the basis of clinic and facility type and racial/ethnic group. These results suggest that the postdeployment screen may not have been acceptable to some clinicians or patients. Our data are limited in that we lack individual-level facility, provider, and patient data as to why the majority of screens were not performed. The OIF and OEF post-deployment screen is not a VA performance measure; thus, competing clinical priorities may take precedence. If the screen were a performance measure, completion rates and uniform screening practices would likely improve. Further, formal staff in-servicing as to how to administer psychological screening and provide feedback of sensitive test results would likely increase screening rates. Finally, making provisions for extra clinician time or ancillary clinic staff to conduct the 10- to 15-minute screening interview would likely increase screening rates in busy clinical settings. Indeed, since this study was conducted, several of these changes were implemented at the medical center and the rate of postdeployment screening in primary care now exceeds 90%.

**High Proportion of Positive Mental Health Screens**

Notably, an extremely high proportion (69%) of OIF and OEF veterans who underwent postdeployment screening at this VA facility screened positive for PTSD, depression, or high-risk alcohol use. By contrast, a recent study of a US military postdeployment screening program showed that among more than 300,000 military service personnel, only 15% reported a mental health concern. Most veterans who access VA care are separated from military service and, thus, may feel less stigma than military personnel might about disclosing mental health symptoms and less concern about a negative impact on their military careers. In addition, veterans who have been home longer may develop symptoms they did not have or recognize previously. Further, some of the screening instruments may be even less specific in combat veterans than reported in other studies because they have not yet been validated in this population.

**Mental Health Follow-Up for Positive Screens**

For veterans with mental health symptoms, early evidence-based intervention has been shown to prevent chronic mental illness. Cognitive–behavioral therapy and selective serotonin reuptake inhibitors are first-line therapies for combat-related PTSD and depression. Our results from 1 VA facility, similar to those of other studies, found that a minority of those who screened positive attended a mental health follow-up appointment as a direct result of screening. Hoge et al. found that although 31% of OIF service personnel had at least 1 mental health appointment, only 8% of these were referred through the official screening program. Our data are limited in that we were not able to determine the proportion of veterans offered referrals who declined nor the details of why some screen-positive veterans did not accept referrals or attend mental health clinic appointments. This finding is consistent with other studies, however, that have found that even after mental health referrals were made, military personnel and civilians did not always follow through. Of note, when we extended our follow-up period beyond 90 days, we found that the majority (73%) of veterans who screened positive ultimately attended a mental health appointment. This may reflect the importance of mental health screening within the context of a longer-term relationship with a primary care provider who may, over time, help patients overcome their reluctance to accept mental health treatment.

**Overcoming Barriers to Mental Health Care**

Barriers to mental health care are crucial to address in the planning of a mental health screening program. A central challenge is that, by design, most veterans are screened in primary care, which requires a referral to a mental health clinic for those who screen positive. Barriers to accessing mental health care are myriad—patient stigma regarding mental health treatment; geographic barriers; family, work, or school obligations; avoidance; low motivation; and denial—all features of depression, PTSD, and alcohol-use disorders. In addition, unlike the mandate to provide pre-and
posttest counseling for HIV screening, there is no precedent for provision of pre- and posttest counseling for mental health screening, which carries intense stigma for many. This may be a missed opportunity for early intervention as the empathetic feedback of test results is a core element of motivational interviewing, a psychotherapeutic technique used to enhance mental health treatment engagement and behavioral change.27

Of note, the VA has been a leader in pioneering a collaborative care model for the integration and co-location of mental health and primary care,26 removing the barrier of making a separate mental health appointment at some time in the future in a different location. Formal integrated primary and mental health care did not exist at these VA facilities during the study period. Because the VA community clinics are small, primary care is naturally closer in proximity to mental health, facilitating communication. This may explain why a greater proportion of screen-positive veterans seen at the VA community clinics had follow-up mental health appointments compared with veterans screened at the medical center. To bridge the gap between primary care and mental health, in April 2007, an integrated, co-located primary care and mental health care clinic was established at the medical center specifically for veterans of Iraq and Afghanistan. To date, 42 veterans of OEF and OIF seen, 35 (83%) were seen by a mental health specialist immediately following their primary care visit. In the future, expanded telephone and Internet-based mental health treatment options may help to overcome additional barriers to care among OIF and OEF veterans.

Study Limitations

Our study had some limitations. Most importantly, this study was conducted at a single VA medical center and its 5 associated VA community clinics; thus, our results may not generalize to all VA facilities in other geographic areas. Specifically, the referral of veterans who met criteria for a positive screen for follow-up mental health services may have differed from the national standard. For instance, at many VA facilities, veterans who screen positive for mental health problems in primary care may be further assessed and treated within primary care. Finally, because we had no data on non–VA mental health encounters, we do not know whether veterans were receiving mental health treatment outside the VA system, which would likely decrease their acceptance of a referral to a VA mental health clinic.

Conclusions

Our results from a single VA facility indicated that the postdeployment mental health screening of combat veterans has the potential to overcome a “don’t ask; don’t tell” environment that surrounds stigmatized mental illness, to efficiently detect mental health symptoms, and to facilitate early intervention to prevent chronic mental illness. Our early experience has led to important improvements in our screening process. In addition to achieving higher screening rates through universal screening of OEF and OIF veterans who presented to primary care, integrating and co-locating mental health specialists within primary care has increased mental health clinic attendance and decreased wait times. Further innovations tailored to the needs of this new generation of veterans may further improve mental health treatment adherence beyond initial engagement.

About the Authors

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Contributors

The study was originated and designed by K.H. Seal, C.R. Marmar, and D. Bertenthal. The data were acquired by D. Bertenthal and A. Chu and were analyzed by K. Gima and K.H. Seal. Data were interpreted by all authors and the article was drafted by K.H. Seal and S. Maguen with final editing by C.R. Marmar. K.H. Seal obtained funding that supported the study.

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Note. Although there were no changes in the original data, the authors made textual changes to the article after it was accepted for publication to reflect improvements at 1 Veterans Administration facility in the postdeployment screening process and health services for veterans of Iraq and Afghanistan.

Human Participant Protection

This study was approved by the Committee on Human Research, University of California, San Francisco, the San Francisco Veterans Administration Medical Center, and the US Department of Defense.

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