

Screening for Psychological Illness in Military Personnel

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ONGOING EVENTS IN IRAQ AND AFGHANISTAN HAVE led to renewed calls to implement widespread screening of members of armed forces to identify those at risk of future psychiatric injury before deployment and to identify those with psychological problems on their return home.^{1,2} If the military could predict who will develop psychological illness due to combat stress, military personnel and commanders would benefit during conflict, and veterans would have fewer mental health problems following a war.

The current calls for widespread screening are not new. Psychological screening based on psychiatric interview was put into practice on a massive scale by the United States during World War II, but was a major failure.³ By the time General George C. Marshall stopped the program in 1944, 2 million men had been rejected as psychologically vulnerable, and thus unable to serve their country.⁴ Many of these individuals were later reenlisted, and the majority were satisfactory soldiers.

Somewhat mindful of the historical experience, the military's current emphasis has been less in predicting vulnerability before exposure to stressful environment and more on detecting and managing psychological illness just before and after deployment. This new outlook was stimulated first by reports of psychological illness in the military, beginning in the aftermath of the Vietnam War, and subsequently by the health problems reported after the 1991 Gulf War,⁵⁻⁷ as well as media attention, disability costs, and greater responsiveness to these issues by governments and military officials.^{8,9}

The United States and Australia have taken steps toward implementing deployment-related screening. In 1998, the US Department of Defense introduced short predeployment and postdeployment questionnaires, which included limited screening for physical and psychological illnesses.⁸ In 2003, the Australian Defence Force introduced more elaborate screening, comprising several psychological tests, including screening for posttraumatic stress disorder (PTSD), followed by a short interview, but it has not been formally implemented.⁹ A similar approach has been supported but not implemented by the US forces in Europe.^{2,10}

Although psychological screening efforts have been supported both within the military and by some mental health professionals, sound evidence that the programs are effective and that the benefits of screening outweigh the psychological and financial costs have been lacking. In this article, we review current evidence to determine what prerequisites are necessary to provide a firm basis for implementing a military psychological screening program. Screening is defined herein as the examination of a generally healthy population to classify individuals as likely or unlikely to have the condition that is the object of screening.¹¹ Screening for psychological illness is based on symptom reporting. Because of the costs and potential adverse effects of screening, there are generally agreed upon criteria that need to be satisfied before implementing a screening program.¹² We propose 6 criteria for implementing a screening program to detect psychological morbidity in the military.

Identified Conditions Should Be Important Health Problems

When administered anonymously or within a research environment, checklist-type questionnaires identify a high level of psychological symptoms in the military in terms of somatization, depression and anxiety, and to a lesser extent, PTSD symptoms.^{2,13} The prevalence of psychological symptoms usually varies between 20% and 30%, but symptoms do not necessarily indicate a clinical disorder, and it is clear that written tests can provide widely varying overestimates and underestimates of any given disorder.¹⁴ Knowledge of findings among similar military populations or even how well young persons understand the questions is limited. The timing, how the questions are framed, and the setting of the assessment can also affect the responses to a questionnaire.¹⁵

The few assessments of the success of military screening questionnaires in identifying clinically important conditions have reported a low yield. Wright et al² found that 186 (21%) of 885 soldiers were screen-positive for psychological illness but only 4 (0.5%) needed immediate referral for

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mental health services. Bliese et al,¹⁶ focusing on PTSD among soldiers returning from the Iraq War, commented that “surprisingly, an extremely low number of soldiers met full Mini-International Neuropsychiatric Interview (MINI) criteria for PTSD (2 of 592).” With less stringent criteria the number increased to 11 (1.8%), but still the yield would have been low.¹⁶ The screening system using the PTSD checklist¹⁷ and the DD Form 2796 (April 2003) was thought to be inefficient because the percentage of service personnel needing prompt medical or psychological support was low in comparison with the high percentage of soldiers with screen-positive test results.

Screening Tests Should Be Clinically, Socially, and Ethically Acceptable

Screening programs need to be acceptable to soldiers being screened, but it is not a forgone conclusion that the acceptability of screening for psychological illness will be high in the military environment. Most surveys in the armed forces show a response rate of less than 75%, often much lower.⁵⁻⁷ An evaluative study of screening for physical and psychological illness in the British Armed Forces had an initial response rate of 70%, but among soldiers who were screened and invited to see a physician less than 25% did so. Moreover, military personnel with potentially more serious illness were even less likely to participate¹³; those with a high score in the PTSD checklist¹⁷ were the most reluctant to seek help.¹³ These findings are consistent with a study of combat duty soldiers, which showed that although many soldiers perceived moderate or severe psychological problems, only a fraction received professional help in the past month.¹

Unlike anonymous surveys, it is likely that current pre-deployment and postdeployment questionnaires under-identify psychological problems. Service personnel may be uninterested in seeking professional help or, more likely, they may have mixed feelings (ie, interested in receiving help but perceiving barriers for a meaningful contact). Anecdotal evidence indicates that service personnel complete screening questionnaires influenced by the surrounding circumstances at the time. Soon after returning from deployment the main motivation is to answer questions in a way that reduces any chance of delaying their well-deserved leave. Overestimation of illness may sometimes occur because of overreporting symptoms when soldiers return home, perhaps influenced by the desire to access health care after leaving the services.¹⁸ Mental health and ill-defined conditions make up a large percentage of all medical consultations of those soldiers returning from deployments, but the same can be observed in civilian populations as well.

Many other perceived barriers to screening for psychological illness in the military have been recently reported.^{1,14,19} In a British qualitative study, the central issue appeared to be lack of confidence in the military health care provision.¹⁹ The British personnel were so concerned with issues of confidentiality, stigmatization, and career pros-

pects that some of them confided that they would not respond honestly to some items.¹⁹ US service members have sometimes expressed similar concerns and these views were more prevalent among those soldiers who met the criteria for a mental disorder than those who did not.¹ Soldiers who screened positive for psychological symptoms and did not accept a visit to their physician had a sense that seeing the physician would not serve any useful purpose. This attitude may reflect lack of confidence or, in a few individuals, may reflect the nature of their conditions. A perceived difficulty in the patient-physician relationship is the knowledge that military physicians are different from other occupational physicians, with a responsibility to the individual but also to the organization, and there is little doubt that military personnel are well aware of this.¹⁹

Screening Tests Should Be Simple, Precise, and Validated

It is not easy to assess the validity of the written psychological tests on which mass screening is based. There are difficulties in relation to what the criterion standard for assessing the screening instrument should be and whether the assessor can be blind to a self-completed questionnaire. Secondary assessments performed by a trained assessor who reviews the answers given in a screening questionnaire are helpful for critically appraising the manner in which soldiers interpret each item in the questionnaire. However, this approach will overestimate the validity of the instruments because research-level review will more accurately identify psychological problems than would standard practice during routine use of a screening tool.

In the study by Wright et al,² their approach overestimated validity. The criterion standard included mental health specialists supervised by psychiatrists, psychologists, or social workers who had access to the information in the questionnaire and undertook the examination immediately after completion of the questionnaire. These conditions are difficult to mimic in a mass-screening program. Bliese et al¹⁶ evaluated soldiers recently returning from Iraq and assessed the value of a short PTSD test. Using the MINI criteria²⁰ based on *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* criteria²¹ and assessors who were unaware of the screen-positive or screen-negative status of their interviewees, sensitivity and specificity markedly varied according to the approach used.

The British assessment was based on a pragmatic approach to validity. Medical officers who were responsible for the service personnel assessed were the criterion standard because medical officers would be the backbone of any psychological screening program.²² Medical officers had to decide whether the service personnel had a health problem and needed medical help. The sensitivity using this approach was approximately 40% and the specificity 70%. Medical officers were already aware of the health problems in a third of soldiers identified as needing help. The validity of

the test was markedly worse when a real-life approach was used. A large number of false-negative test results would have been missed and many false-positive test results would have been detected.

High-Quality Research Evidence Should Demonstrate the Effectiveness of Screening in Reducing Psychiatric Morbidity

Written questionnaires to detect psychological illness have not been proven to be effective in civilian populations.²³ Similar studies are unavailable in military populations. A screening program without evidence of effectiveness could be harmful. Good intentions alone cannot sustain a screening program of such complexity. A related example is the disillusionment that is now widespread with psychological debriefing following a traumatic event. Such debriefing has been shown ineffective and may increase psychiatric morbidity.²⁴ Even the most seemingly innocuous intervention may do more harm than good. This is not an argument against all psychological screening but rather an argument to thoroughly assess the efficacy of any screening program before final acceptance, with rigorous research studies such as randomized controlled trials.

Adequate Staffing and Facilities for All Aspects of Psychological Screening Programs Are Critical

Undue pressure on the available medical resources should also be considered. Most psychological tests will highlight common symptoms, not actual diagnoses of psychological conditions. Depending on the mode of implementation, the absolute number of service personnel who will need further assessment will be approximately 20% to 30% of the population screened.^{1,2,13} If the procedure were implemented before deployment, approximately 20% of troops would be referred for additional assessment and at least temporarily unavailable for duty.¹³ Such high prevalence of suspected cases would create logistical difficulties that will not be welcomed by a commanding officer at a critical time in the preparation of combat operations. Even worse, this search for psychological problems may adversely affect morale just before deployment. Combat troops misidentified as having possible psychiatric problems could develop unfounded personal doubts and comrades could lose trust in their reliability prior to battle. It is difficult to imagine a worse outcome for a well-intended psychiatric health care program.

Benefits From the Screening Program Should Outweigh Potential Harms

Screening for psychological problems may have other unforeseen negative outcomes. A possible negative consequence of such a program would be that a particular cohort of military troops, especially those who return from a recent conflict, could be erroneously characterized as a group having both psychological and medical problems. Although most war veterans do well on their return home, stig-

matization of veteran's health could harm servicemen and servicewomen in applying for employment in civilian life and in their interactions with their family, friends, and colleagues. As a pointed example, some Vietnam veterans ended up being stereotyped as "social timebombs" to be avoided or feared, and it is only recently that this stereotype has begun to break down.²⁵ Perceptions can become self-fulfilling. It is critical to consider the complex implications that may result from a screening program—both from false-positive and false-negative test results—and the consequences.

Alternative Approaches to Mass Screening

A critical assessment of the limitations of psychological screening cannot be construed as a recipe for inaction during a time of military conflict. The goal is to ensure that military personnel and veterans who need help for mental health problems have ready access to that help and feel free to seek help in the military environment and after leaving military service. Consequently, confidentiality and protection against job discrimination are paramount. However, practical consideration has to be given to the dangerous conditions under which military personnel serve. For example, it would not be responsible to let a severely depressed combat soldier keep a weapon. However, military personnel with mental health conditions that are transient or not severe should have the right to confidentiality. This group will make up the majority of those soldiers in need of mental health care.

It is the responsibility of military medical services to develop the mechanisms that would ensure a balance in favor of the patient without stigmatizing the recipients of care. There are many gains from such an approach. Improved confidence in health care programs can be established and the service personnel will learn to confide important experiences that would facilitate health care for military personnel.

A second issue that deserves attention is appropriate education for military medical staff, especially primary care staff, on how to recognize and manage psychological morbidity in personnel who have experienced highly stressful conditions of conflict and peace enforcement. Documents prepared by the US Department of Veterans Affairs, such as the Iraq War clinician guide,^{26,27} that take a broader outlook to psychological morbidity may help clinicians to organize their management of patients, especially those returning from Iraq and Afghanistan. Similar guidelines are about to be issued in the United Kingdom for the management and detection of medically unexplained symptoms.

An important objective is to disseminate examples of effective mental health care. Dissemination of valuable information on effective intervention is a problem not restricted to military settings. Much psychological morbidity can be treated effectively as shown in a randomized controlled trial assessing the effects of physician awareness of symptom-related expectations in mental disorders²⁸ and evaluations of cognitive-behavioral therapy for somatization.²⁹

Conclusions

This overview of the value of screening for psychological illness in the military highlights the need for caution because of lack of acceptability of the intervention, barriers to confidentiality, uncertainty about the validity or low validity of the available instruments, lack of evidence on the effectiveness of such programs, and the possibility of causing harm rather than providing benefit. There is not sufficient information on the opportunity cost of a screening program, but it could possibly divert scarce resources from more effective health care activities.

Without evidence of effectiveness, the common practice of viewing psychological screening as a panacea to prevent morbidity every time a large number of troops is put into life-threatening combat ought not be repeated. A focus on improving support structures for veterans and service personnel within and outside the military organization and improving recognition and management of health problems in an atmosphere of confidentiality and modesty about the ability to screen for psychological problems are a better approach for the future.

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