

Mental Health Conditions Common to Veterans and Family Members of Veterans

Introduction

Veterans from recent conflicts have, or have been diagnosed with, post-traumatic stress disorder, major depression, or both post-traumatic stress disorder and major depression at a significant rate. Since 2001, 2.4 million active duty and reserve military personnel were deployed to the wars in Iraq and Afghanistan. Thirty percent of this group, nearly 730,000 men and women, have or will be diagnosed with a mental health condition requiring treatment. These issues arise during deployment, as well as when veterans and their families confront reintegration into their communities. Current and former members of the military may not always volunteer information about their military service. Furthermore, veterans may not be willing to share their experiences, especially when they cause them mental anguish. Military deployment may have a profound effect on military personnel, and understanding mental illness and how to screen, diagnose and treat mental illness is important for the health clinician.

Mental Health Disorders In Veterans

Studies have shown that 18.5% of all Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans have post-traumatic stress disorder (PTSD), major depression, or both PTSD and major depression. Other mental health disorders are estimated to affect 11.6% of those without PTSD or major depression. The most common medical and mental health issues include PTSD, suicide, depression, grief, drug and alcohol use, and intimate partner violence or child abuse. It is important for a health clinician to talk to patients and their family members about military

involvement to assess the risk of mental health conditions, as well as the stress, depression, grief, and risk of suicide that may be present. With the right screening questions, healthcare professionals have the opportunity for early intervention to mitigate the impact of these conditions.

Screening for Military Service

Screening has been defined as the examination of a generally healthy population to identify people as likely or unlikely to have a particular condition. Because screening is not without cost or potential adverse effects, six criteria have been proposed for determining the acceptability of any given screening procedure.¹

- The identified condition should be an important health problem.
- The test should be clinically, socially, and ethically acceptable.
- The test should be simple, precise, and valid.
- The test should lead to reduced morbidity.
- Staffing and facilities for all aspects of the screening program must be adequate.
- Benefits of screening should outweigh potential harms.

It is generally accepted that screening for PTSD, depression, and other mental health problems is ineffective unless it is integrated into a total management program with adequate follow-up to confirm or refute a positive screening result and adequate capability to provide appropriate treatment.

Screening is not meant to replace assessment or diagnosis, but it can serve as a decision support tool. A person who has a positive screening result should undergo a clinical assessment that can be used by a trained clinician to make appropriate diagnoses, including diagnoses of comorbid conditions,

such as depression or traumatic brain injury (TBI), and to acquire additional information that is required to plan treatment. Such an assessment should take into account the symptoms that the person is experiencing and the severity of and functional impairment associated with the symptoms. Although it is widely believed that screening for PTSD among current and former service members is important to identify affected individuals as early as possible so they may be directed to an appropriate treatment plan, there is no strong evidence to support the belief that this will prevent chronic suffering and maladjustment.²

Why Screen for Military Service?

The major psychologic conditions currently screened for in populations of active-duty military personnel and veterans are PTSD, depression, alcohol use disorders, sexual trauma, suicidality, and mild TBI. Traumas associated with military service, such as combat and sexual assault, have been associated with a high prevalence of PTSD in this population, and several factors should be considered in implementing broad screening directives in this group.

For a screening program to be effective, adequate resources need to be in place to support it, such as appropriate personnel and time. There are important factors to designing a screening program, such as the choice of instrument, method of delivery (self-report versus clinician-administered), place of delivery (in the theater of war versus on the home front), and intended use of the results of the screen.³

In the Veterans Health Administration (VHA), positive screenings for PTSD, depression, suicidality, or military sexual trauma (sexual assault or extreme harassment that occurred during service in the military) result in referral of

the veteran to a mental health professional for evaluation. Patients referred are to receive an initial evaluation within 24 hours and a full evaluation within 14 days after referral. However, no data is available to track what happens after referral; for example, what proportion engage and complete evaluations, enter and complete treatment, continue or return to active duty, or are discharged.⁴

Veteran Status

Veterans and service members may not self-identify as such to their healthcare professionals. Assessing veteran status should be integrated into the behavioral health screening process. The American Medical Association (AMA) has urged health clinicians to ask patients if they have served in the military and to include that experience in their records. The American Academy of Nursing (AAN) launched an awareness campaign in 2013 to encourage healthcare professionals to ask patients if they are veterans or family members of veterans. Health clinicians do not routinely ask this question. Only a small percentage of veterans receive services through the Veterans Health Administration. Many more veterans receive healthcare through community health professionals.⁵

The AAN program provides screening and intake questions and information on general areas of concern for all veterans, such as post-traumatic stress, military sexual trauma, and blast concussions/traumatic brain injury, as well as health concerns for veterans of specific conflicts or deployment conditions. The initiative aims to ensure that individuals have appropriate access to services and to increase health clinicians' awareness of service-related healthcare issues.⁶

Assessing veteran status is not included in traditional behavioral health screenings. Since patients may not volunteer this information, asking patients if they have served in the military has important implications for the available benefits and care. Screening for veteran status includes the following.⁷

- Ensure that veterans have access to the health care and support services that they have earned
- Inform treatment planning
- Increase awareness of the extraordinary strengths that veterans often possess and unique challenges that they may face

Family Member of Veteran

Finding out if patients have close family members who are veterans can help health clinicians understand the patient's family context and determine if the family could benefit from connection to veteran resources. In addition, individuals working with veteran family members must take their mental health into account. It is important to provide mental health assessments to the family members of veterans on a regular basis to ensure their needs are being met.⁸

The Institute of Medicine (IOM) reports that the most common psychological challenges experienced by both service members and their families include fears for the safety of the service member, feeling anxious or overwhelmed by deployment-related challenges and responsibilities, worry about children, and vulnerability to additional stressors that might arise.⁹

The VHA offers family services for veterans and their family members. These include family education, brief problem-focused consultation, family psychoeducation, and marriage and family counseling. Family education

provides families with the information they need to partner with a treatment team and support the veteran's recovery. For brief family consultation, the family meets with a mental health provider as needed to resolve specific issues related to the veteran's treatment and recovery. Family psychoeducation is a part of recovery services for veterans with serious mental illness. It focuses mainly on supporting the veteran's wellbeing and functioning. The overarching goal of marriage and family counseling is to reduce relational distress and strengthen couple and family relationships.^{10,11}

Screening Questions

The American Academy of Nursing suggests the following screening questions for determining military service of patients or family members of patients.¹²

- Have you or has someone close to you ever served in the military?
- When did you serve?
- Which branch did you serve?
- What did you do while you were in the military?
- Were you assigned to a hostile or combative area?
- Did you experience enemy fire, see combat, or witness casualties?
- Were you wounded, injured, or hospitalized?
- Did you participate in any experimental projects or tests?
- Were you exposed to noise, chemicals, gases, demolition of munitions, pesticides, or other hazardous substances?
- Have you ever used the VA (Veterans Administration) for healthcare?
 - When was your last visit to the VA?
 - Do you have a service-connected disability or condition?
 - Do you have a VA primary care provider?

Mental health screening is an important part of patient evaluation and intake in both the outpatient and inpatient setting. Screening for a mental health condition, such as anxiety or depression, allows the mental health professional to identify a condition and intervene early to avoid a serious outcome and to help the patient begin the appropriate treatment needed. Research has shown that identifying primary psychiatric symptoms early helps to formulate an effective treatment plan and leads to improved mental health outcomes. Moreover, when a mental health condition is identified early, long-term distress and disability may be prevented. The following sections discuss specific psychiatric diagnoses and screening instruments to early identify a mental health condition for appropriate treatment and follow-up care.

Post Traumatic Stress Disorder In Veterans

Post-traumatic stress disorder is a condition that can occur at any age, including childhood. PTSD is seen in war veterans and survivors of physical and sexual assault and abuse, accidents, disasters, and many other serious events.¹³ PTSD can cause many symptoms. These symptoms may include those listed below.¹⁴

Re-experiencing or Intrusive Thoughts

- Flashbacks, which involves reliving the trauma over and over, including physical symptoms like a racing heart or sweating
- Bad dreams
- Frightening thoughts

Avoidance or Numbing

- Staying away from places, events, or objects that are reminders of the experience

- Feeling emotionally numb
- Feeling strong guilt, depression, or worry
- Losing interest in activities that were enjoyable in the past
- Having trouble remembering the dangerous event
- Wanting to avoid thoughts about the trauma, including using alcohol or drugs

Increased Arousal or Vigilance

- Being easily startled
- Feeling tense or “on edge”
- Having difficulty falling or staying asleep
- Irritability or angry outbursts
- Difficulty concentrating

Other Criteria for PTSD Diagnosis

- Duration of at least one month
- Functional impairment (clinically significant)

Not everyone with PTSD has been through a dangerous event. Some people get PTSD after a friend or family member experiences danger or is harmed. The sudden, unexpected death of a loved one can also cause PTSD. Mentally reliving a traumatic event can be almost as stressful and frightening to people with PTSD as the original trauma. People with PTSD often experience frustration, embarrassment, and confusion, in addition to the physical and psychological symptoms. Post-traumatic stress disorder strains relationships because many people with PTSD detach themselves from friends and loved ones and the activities that they used to enjoy.¹⁵

Screening for PTSD is usually not the sole focus of a clinical assessment but is combined with screening and assessment of other conditions. The Veterans Administration with the Department of Defense (VA/DoD) Clinical Practice Guidelines support assessment of patients for psychiatric and medical conditions, which includes “*past and current psychiatric and substance use problems and treatment, prior trauma exposure, pre-injury psychological stressors, and existing social support.*”¹⁶ The number of deployments that a person has had should also be considered.¹⁶

For those who screen positive for PTSD or when evidence suggests the presence of other disorders or comorbidities, the screening program should ensure rapid diagnostic evaluation by a trained clinician that includes the assessment of other possible causes of the symptoms and issues that are important for treatment planning. The use of a structured interview may improve the validity and reliability of such an evaluation. Evaluation should address comorbidities — such as traumatic brain injury, depression, other anxiety disorders, alcohol or substance use — and the presence of risky behaviors. In addition, determining the severity of symptoms, the degree and nature of functional impairments, and suicide risk are important in selecting treatment.

During the evaluation, the client being evaluated should be educated regarding PTSD and other relevant diagnoses, he or she should have treatment options explained, and should participate and agree with treatment decisions. The latter is key to later engagement with and adherence to treatment.¹⁷

One of the many considerations in screening for PTSD is when to screen. In the active-duty, National Guard, and reserve force, screening can occur before deployment to a combat zone, during deployment in the theater of

war, or after deployment. Because PTSD symptoms may not show up for months or years or may not be present when a service member transitions from active duty to the civilian population, screening for PTSD is also an important consideration in the VA.

DSM-5 Diagnostic Criteria for PTSD

Health clinicians should be aware of the DSM-5 diagnostic criteria for PTSD. Currently, diagnosis of PTSD is based on eight criteria from the DSM-5.¹⁸ The first DSM criterion has four components, as follows:

- Directly experiencing the traumatic event(s)
- Witnessing, in person, the event(s) as it occurred to others
- Learning that the traumatic event(s) occurred to a close family member or friend
- Experiencing repeated or extreme exposure to aversive details of the traumatic event(s); this does not apply to exposure through media such as television, movies, or pictures

The second criterion involves the persistent re-experiencing of the event in one of several ways:

- Thoughts or perception
- Images
- Dreams
- Illusions or hallucinations
- Dissociative flashback episodes
- Intense psychological distress or reactivity to cues that symbolize some aspect of the event

Unlike adults, children re-experience the event through repetitive play rather than through perception. The third criterion involves avoidance of stimuli that are associated with the trauma and numbing of general responsiveness, as determined by the presence of one or both of the following:

- Avoidance of thoughts, feelings, or conversations associated with the event
- Avoidance of people, places, or activities that may trigger recollections of the event

The fourth criterion comprises two or more of the following symptoms of negative alterations in cognitions and mood associated with the traumatic event(s):

- Inability to remember an important aspect of the event(s)
- Persistent and exaggerated negative beliefs about oneself, others, or the world
- Persistent, distorted cognitions about the cause or consequences of the event(s)
- Persistent negative emotional state
- Markedly diminished interest or participation in significant activities
- Feelings of detachment or estrangement from others
- Persistent inability to experience positive emotions

The fifth criterion is marked alterations in arousal and reactivity, as evidenced by two or more of the following:

- Irritable behavior and angry outbursts
- Reckless or self-destructive behavior
- Hypervigilance
- Exaggerated startle response
- Concentration problems

- Sleep disturbance

The remaining three criteria are as follows:

- The duration of symptoms is more than 1 month
- The disturbance causes clinically significant distress or impairment in functioning
- The disturbance is not attributable to the physiologic effects of a substance or other medical condition

Primary Care PTSD Screening

There are a number of reasons why healthcare professionals should assess patients for a history of trauma exposure. Some of the most important reasons are highlighted below.¹⁹

Trauma and Trauma-related Problems

Trauma and trauma-related problems are common. About 60% of men and 50% of women experience at least one trauma such as a disaster, war, or a life-threatening assault or accident at some point in their lives. Nearly 8% of the population has PTSD in their lifetimes; and, PTSD is highly comorbid with other disorders such as panic, phobic, or generalized anxiety disorders, depression, or substance use.

PTSD Affects Health

Reviews of the literature on trauma and health emphasize the role of PTSD as a mediator between trauma exposure and health effects. Such health effects include a variety of medical disorders as well as significant behavioral health risks.

Trauma Exposure and Utilization of Services

The literature reviews also cite findings of high medical utilization rates for survivors of different types of trauma.

PTSD Under-recognition by Clinicians

Research shows that many patients who seek physical healthcare have been exposed to trauma and have posttraumatic stress symptoms but have not received appropriate mental health care. As with anxiety disorders and depression, most patients with PTSD are not properly identified and are not offered education, counseling, or referrals for mental health evaluation.

Health professionals need to keep in mind that avoidance of trauma reminders is a prominent symptom of PTSD. This makes it even more likely that patients will not spontaneously report their trauma experiences or related symptoms. Clinicians can increase the chances of improved health outcomes for their patients by following the following steps.²⁰

- Identify a PTSD Consultant

The first step is to identify a mental health care professional trained in PTSD. This professional should be able to provide the patient with consultation, and with education, assessment, and counseling. PTSD therapists come from a range of disciplinary backgrounds including psychiatry, clinical psychology, social work, and psychiatric nursing.

- Screen for PTSD

Health professionals can use the questions from the screen listed below to ask about trauma-related symptoms. Alternatively, a clinician

can distribute a self-report screening instrument prior to a medical appointment. Completed screens are collected and reviewed by the physician, nurse, physician's assistant, or a mental health consultant to identify patients who are likely to be experiencing distressing post trauma reactions. Screening items can also be added to the standard medical history forms that patients complete at first visits.

The Primary Care PTSD Screen (PC-PTSD) shown below has been designed for use in primary care and other medical settings.⁵⁻⁶ The PC-PTSD is brief and problem-focused. The screen does not include a list of potentially traumatic events. There are two reasons for this:

1. Studies on trauma and health in both male and female patients suggest that the active mechanism linking trauma and physical health is the diagnosis of PTSD.²⁻³ In other words, the relationship between trauma and health appears to be mediated through a current PTSD diagnosis.
2. A symptom-driven screen, rather than a trauma-focused screen, is attractive to health care staff that may not be able to address a patient's entire trauma history during their visit. A trauma-focused inquiry might be especially problematic with a VA population where the average number of traumatic events meeting criterion A for PTSD is over four. Its important to: 1) discuss the results, 2) provide a referral, 3) provide educational materials, and 4) follow up with the patient.

Primary Care PTSD Screen

In your life, have you ever had any experience that was so frightening, horrible,

or upsetting that, in the past month, you:

1. Have had nightmares about it or thought about it when you did not want to?

YES NO

2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it?

YES NO

3. Were constantly on guard, watchful, or easily startled?

YES NO

4. Felt numb or detached from others, activities, or your surroundings?

YES NO

Current research suggests that the results of the PC-PTSD should be considered "positive" if a patient answers "yes" to any three items. A positive response to the screen does not necessarily indicate that a patient has Posttraumatic Stress Disorder. However, a positive response does indicate that a patient may have PTSD or trauma-related problems and further investigation of trauma symptoms by a mental-health professional may be warranted. If the PC-PTSD screening instrument is utilized, clarify responses to determine:

a. Whether the patient has had a traumatic experience

"I notice from your answers to our questionnaire that you experience some symptoms of stress. At some point in their lives, many people have experienced extremely distressing events such as combat, physical or sexual assault, or a bad accident, and sometimes those events lead to the kinds of symptoms you have. Have you ever had any experiences like that?"

b. Whether endorsed screen items are really trauma-related symptoms

"I see that you have said you have nightmares about or have thought about an upsetting experience when you did not want to. Can you give me an example of a nightmare or thinking about an upsetting experience when you didn't want to?"

If a patient gives an example of a symptom that does not appear to be in response to a traumatic event (*i.e.*, a response to a divorce rather than to a traumatic event), it may be that he or she is ruminating about a negative life

event rather experiencing intrusive thoughts about a traumatic stressor.

c. Whether endorsed screen items are disruptive to the patient's life

"How have these thoughts, memories, or feelings affected your life? Have they interfered with your relationships? Your work? How about with recreation or your enjoyment of activities?"

Positive responses to these questions in addition to endorsement of trauma symptom items on the PCPTSD Screen indicate an increased likelihood that the patient has PTSD and needs further evaluation. Discern whether traumatic events are ongoing in a patient's life. If ongoing traumatic events are a part of the patient's life, it is critical that the primary care practitioner discern whether the patient needs an immediate referral for social work or mental-health services. The practitioner might ask:

"Are any of these dangerous or life-threatening experiences still continuing in your life now?"

If ongoing family violence is suspected, it is imperative that the patient be told the limits of confidentiality for medical professionals, who are mandated to report suspected ongoing abuse of children and dependent adults. Discussion of possible abuse should take place in the absence of the suspected perpetrator; if the abuser is present, victims may deny abuse for fear of retaliation. If ongoing threats to safety are present:

- Acknowledge the difficulty in seeking help when the trauma has not stopped.**
- Determine if reporting is legally mandated. If it is, develop a plan with the patient to file the report in a way that increases rather than decreases the safety of the patient and his or her loved ones. If reporting is not appropriate, provide written information (or oral if written might stimulate violent behavior in the perpetrator) about local resources that might help the situation.**

Establish a plan that the patient will agree to in order to move toward increased safety.

Symptom-Driven Diagnostic Screening for Primary Care

The Symptom-Driven Diagnostic Screening for primary care (SDDS-PC) assesses multiple mental disorders that are common to primary care. It serves as a sensitive, valid, and patient-friendly first step in a new approach to recognizing and managing mental disorders in primary care. Finally, it aids the primary care clinician in selecting an appropriate diagnostic interview module for the disease for which the patient screened positive. Screening questionnaires have been developed to try to improve recognition of mental disorders in primary care practice. These questionnaires either assess general distress, such as the General Health Questionnaire, or symptoms of specific mental disorders, but they do not screen for multiple specific mental disorders simultaneously.²¹

In the SDDS-PC, a brief screen for multiple mental disorders is linked to a group of brief disorder-specific criterion based interview modules, which include medical "rule outs". These modules are based on DSM-5 criteria for each mental disorder and assist the clinician in making specific mental disorder diagnoses. The screen scores for the diagnoses indicate which modules are appropriate to use. The screen is designed to be a brief, easy to use, and efficient way to simultaneously screen for multiple mental disorders in a primary care setting. The screen results can be followed by the appropriate confirmatory test; a brief structured interview by the patient's own clinician.¹⁹

Trauma-Driven Screening

The stress to veterans that is created by exposure to traumatic events is very real. These kinds of experiences happen with unfortunate regularity because they are an essential part of the military experience especially during times of war.

It is important that veterans be prepared to deal with the impacts of these exposures, and that clinicians provide access to resources that can make a difference. The actions recommended reflect best practices based on current research, and should fit easily into the operations and support systems that most veteran treatment practices have in place. The key elements²²⁻²⁴ of this model is outlined below.

Potentially Traumatic Event

A trauma for one veteran may be a routine event for another. Reaction to a trauma is subjective, driven by an individual's experience, sensibilities and personal situation. After exposure to a Potentially Traumatic Event (PTE), members should be asked if they require assistance and what is needed. If no assistance is needed, expression of support may be all that is required.

After Action Review

The After Action Review (AAR) is a mechanism that allows those affected by an event to review what happened, what was successful, what could have gone better and how they might improve the next time they respond to a similar situation. This post-incident assessment will often help individuals put the event into perspective. After a brief "time out", they may elect to return to service.

Trauma Screening Questionnaire

The Trauma Screening Questionnaire (TSQ) is a straightforward and easily scored instrument to identify who is progressing well, and who may need additional help down the road. Used 3-4 weeks after the PTE, it consists of ten simple questions about recent symptoms. More than six positive

responses suggest that a more complete screening by a competent behavioral health professional may be warranted.

Complete Assessment

The complete assessment can typically be accomplished by a referral to a department or jurisdiction's Behavioral Health Assistance Program (BHAP) or other competent behavioral health professional. BHAP counselors can often help with managing specific symptoms and dealing with other non-event related stressors of daily living (such as marital problems, financial issues, *etc.*) that might be interfering with a member's recovery from exposure to a traumatic event.

Treatment by Specialty Clinician

A specialist (psychiatrist, doctoral-level psychologist, licensed clinical social worker or licensed professional counselor) with advanced training and supervised clinical experience in specific evidence-based treatment for PTSD, anxiety disorders and depression should provide care when more intensive treatment is needed.

Self-Report Screening Instruments

Several self-report measures exist to help screen patients for PTSD. Among these are:

- Adult PTSD Self-Report Measures
- Davidson Trauma Scale (DTS)
- Mississippi Scale for Combat Related PTSD (M-PTSD)
- Modified PTSD Symptom Scale (MPSS-SR)
- Post-traumatic Diagnostic Scale (PDS)
- Screen for Post-traumatic Stress Symptoms (SPTSS)

- Trauma Symptom Checklist–40 (TSC-40)

There is no single best PTSD measure. The correct tool depends on the goal. For example, a quick screen self-report measure might be best, or a longer interview that assesses for frequency and severity of symptoms might be appropriate.²⁵

Depression In Veterans

Those that have served in the military are prone to depression, at least partially as a result of exposure to traumatic experiences, including witnessing combat and separation from family during deployment or military trainings. Consistent with the U.S. Preventive Services Task Force (USPSTF) recommendation, screening for a major depressive disorder (MDD) and follow-up of a positive screen should be standard clinical practice. The current policy for VA and DoD recommends annual screening for MDD.²⁶

Screening for major depressive disorder as an accepted and routine part of primary care practice has depended on a number of developments, which are illustrative for integrating screening for and management of PTSD in primary care practice. These are of particular concern in practices outside the DoD and the VA systems.²⁷

Although many patients with depression receive care exclusively within a primary care setting, up to half of depression cases in these settings go unrecognized. This may be due to the clinician's limited time with the patient as well as the patient's focus on the somatic symptoms that co-occur with depression. Since almost two-thirds of patients with depression receive treatment in primary care, the responsibility of assessing and treating these patients falls heavily upon primary care clinicians. By using a quick, efficient,

and valid screening mechanism, primary care clinicians can increase the rates of detection within a primary care setting.²⁸

A number of self-administered questionnaires are available to assist primary care clinicians in the assessment, diagnosis, and ongoing management of depression in adults. Both the Patient Health Questionnaire-2 (PHQ-2) and the Patient Health Questionnaire-9 (PHQ-9) are reliable and valid measures of detecting depression and identifying the level of depression severity. Moreover, ease of use makes both the PHQ-2 and PHQ-9 useful and efficacious clinical tools for the primary care setting.²⁹

Patient Health Questionnaire-2

The Patient Health Questionnaire-2 screen is a two-item self-report that inquires about the frequency of depressed mood and anhedonia over a two week period. The purpose of the PHQ-2 is to screen for depression in a “first step” approach. The PHQ-2 includes the first two items of the PHQ-9, which screens for and diagnoses depression based on the Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria.

All patients seen in primary care settings should complete screening with the PHQ-2 annually. Patients who screen positive on the PHQ-2 should be further evaluated with the PHQ-9, other diagnostic instruments, and a direct interview. The PHQ-2 has a reported sensitivity and specificity of between 82% to 97% and 78% to 91%, respectively, for major depression using a cut off score of ≥ 3 .³⁰

Patient Health Questionnaire-2: Screening Instrument for Depression

OVER THE PAST TWO WEEKS, HOW OFTEN HAVE YOU BEEN BOTHERED BY ANY OF THE FOLLOWING PROBLEMS?	NOT AT ALL	SEVERAL DAYS	MORE THAN ONE-HALF THE DAYS	NEARLY EVERY DAY
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3

NOTE: If the patient has a positive response to either question, consider administering the Patient Health Questionnaire-9 or asking the patient more questions about possible depression. For older adults, consider the Patient Health Questionnaire-9 or the 15-item Geriatric Depression Scale. A negative response to both questions is considered a negative result for depression.

Patient Health Questionnaire-9

The nine-item Patient Health Questionnaire or PHQ-9 is a validated self- or interviewer-administered instrument that assesses patient symptoms and effects on functioning, according to DSM criteria. The PHQ-9 can be administered in less than two minutes and it is simple to score, easily understood, and available in multiple languages. It can be a powerful tool to assist clinicians with assessing depression and monitoring treatment response. Specifically, the PHQ-9 can help track a patient's overall depression severity as well as the specific symptoms that are improving (or not) with treatment. PHQ-9 scores have been validated against the DSM using independent structured interviews. Validity has been assessed against an independent structured mental health professional interview. A PHQ-9 score ≥ 10 had a sensitivity of 0.88 and a specificity of 0.88 for major depression.^{31,32}

Patient Health Questionnaire-9: Screening Instrument for Depression

OVER THE PAST TWO WEEKS, HOW OFTEN HAVE YOU BEEN BOTHERED BY ANY OF THE FOLLOWING PROBLEMS?	NOT AT ALL	SEVERAL DAYS	MORE THAN ONE- HALF THE DAYS	NEARLY EVERY DAY
Little interest or pleasure in doing things	0	1	2	3
Feeling down, depressed, or hopeless	0	1	2	3
Trouble falling or staying asleep, or sleeping too much	0	1	2	3
Feeling tired or having little energy	0	1	2	3
Poor appetite or overeating	0	1	2	3
Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
Moving or speaking so slowly that other people could have noticed. Or the opposite—being so fidgety or restless that you have been moving around a lot	0	1	2	3

**OVER THE PAST TWO WEEKS,
HOW OFTEN HAVE YOU BEEN
BOtherED BY ANY OF THE
FOLLOWING PROBLEMS?**

**NOT
AT
ALL**

**SEVERAL
DAYS**

**MORE
THAN ONE-
HALF THE
DAYS**

**NEARLY
EVERY
DAY**

more than usual

Thoughts that you would be
better off dead, or of hurting
yourself in some way

0

1

2

3

Total:

____ +

____ +

Interpretation

**Total
score** **Depression severity**

1 to 4 Minimal

5 to 9 Mild

10 to 14 Moderate

15 to 19 Moderately severe

20 to 27 Severe

Adapted from patient health questionnaire (PHQ) screeners. <http://www.phqscreeners.com>.

Interpreting the PHQ-9

Research has shown that certain scores on the PHQ-9 are strongly correlated with a subsequent major depression diagnosis. However, not everyone with an elevated PHQ-9 is certain to have major depression. The PHQ-9 is intended as a tool to assist clinicians with identifying and assessing depression but is not a substitute for diagnosis by a trained clinician. A positive response to the screen does not necessarily indicate that a patient has depression. However, a positive response does indicate that a patient may have symptoms of possible depression and that further investigation of symptoms by a mental health professional may be warranted.

Those screening positive for moderate, moderate-severe, or severe depression should be further evaluated and assessed for the presence of depression. Moreover, patients that have a positive response to question #9 should be further assessed for suicidal ideations and/or intent. This strategy increases a clinician's ability to detect depression and to initiate appropriate referral and treatment. Proper triage should occur within 24 hours of the screen indicative of possible depression.^{29,30,32}

Monitoring Depression with the PHQ-9

The PHQ-9 can be used to monitor the severity of depressive symptoms and to assess response to treatment. PHQ-9 scores of 5 points or higher reliably indicate mild depressive symptoms. Scores of 15 points or higher reliably indicate moderate to severe impairment from depression.

Screening Recommendations for PHQ-2 and PHQ-9

- The PHQ-2 should be completed annually on all patients seen in primary care settings.
- Patients who screen positive on the PHQ-2 should have both a documented assessment using a quantitative questionnaire to further

assess whether the patient has sufficient symptoms to warrant a diagnosis of clinical major depression and a full clinical interview that includes evaluation for suicide risk.

- Patients with certain medical illnesses (*i.e.*, Hepatitis C starting interferon treatment or post-myocardial infarction) may be at higher risk for developing depression and should be given a diagnostic assessment tool such as the PHQ-9 when depression is suspected.
- Caution should be used in screening patients older than 75 years because screening instruments may not perform as well as in patients 65 to 75 years old.^{22,33}

Grieving In The Veteran Population

Although research into the prevalence and intensity of grief symptoms in war veterans is limited, clinicians recognize the importance for veterans of grieving the loss of comrades. Grief symptoms can include sadness, longing, missing the deceased, non-acceptance of the death, feeling the death was unfair, anger, feeling stunned, dazed, or shocked, emptiness, preoccupation with thoughts and images of the deceased, loss of enjoyment, difficulties in trusting others, social impairments, and guilt concerning the circumstances of the death.

Recent research results, although limited to one sample of Vietnam combat veterans in a residential rehabilitation unit for PTSD, have supported findings in the general bereavement literature that unresolved grief could be detected as a distress syndrome distinct from depression and anxiety. In this sample of combat veterans, grief symptoms were detected at very high levels of intensity, 30 years post-loss. The intensity of symptoms experienced after thirty years was similar to that reported in community samples of grieving spouses and parents at six months post-loss. This

supports clinical observations that unresolved grief, if left untreated, can continue unabated and increases the distress load of veterans.³⁴

Traumatic Grief

Traumatic grief refers to the experience of the *sudden loss* of a significant and close attachment. Having a close buddy, identification with soldiers in the unit, and experiencing multiple losses were the strongest predictors of grief symptoms in the above sample of Vietnam veterans. Other factors that may influence the development of prolonged grief syndrome include: survivor guilt, feelings of powerlessness in not being able to prevent the death, anger at others who are thought to have caused the death, anger at oneself for committing a self-perceived error resulting in the death, tasks of survival in combat taking precedence over grieving, not being able to show emotional vulnerability, numbing and defending against overwhelming emotions, not having an opportunity in the field to acknowledge the death, and an increased sense of vulnerability by seeing someone close killed.

Factors important in the Iraq War may include exposure to significant numbers of civilian casualties, exposure to death from friendly fire or accidents resulting from massive and rapid troop movements, and concern about culpability for having caused death or harm to civilians in cities. These factors may contribute to experiences of shock, disbelief, and self-blame that increase risk of traumatic and complicated grief reactions.^{35,36}

Acute Traumatic Grief

Survivors of traumatic events can experience acute symptoms of distress including intense agitation, self-accusations, high-risk behaviors, suicidal ideation, and intense outbursts of anger, superimposed on the symptoms of

normal bereavement. Soldiers who lose their comrades in battle have been known to make heroic efforts to save them or recover their bodies. Some soldiers have reacted with rage at the enemy, risking their lives with little thought ("gone berserk" or "kill crazy"). Some soldiers withdraw and become loners, seldom or never again making friends; and, some express extreme anger at the events and personnel that brought them to the conflict. Some soldiers are inclined to mask their emotions. Any sign of vulnerability or "losing it" can indicate that they are not tough enough to handle combat. Delaying grief may well postpone problems that can become chronic symptoms weeks, months, and years later. The returning veteran who has developed PTSD and/or depression may be masking his or her grief symptoms.^{8,13,37}

Complications of Bereavement

Bereavement is a universal experience. Intense emotions, including sadness, longing, anger, and guilt, are reactions to the loss of a close person. Common in the first days and weeks of grieving are intense emotions, usually experienced as coming in waves lasting 20 minutes to an hour, with accompanying somatic sensations in the stomach, tightness in the throat, shortness of breath, intense fatigue, feeling faint, agitation, and helplessness. Lack of motivation, loss of interest in outside activities, and social withdrawal are also fairly common. A person experiencing normal grief will have a gradual decline in symptoms and distress. When grief symptoms remain at severely discomforting levels, even after two months, a referral to a clinician can be considered. If intense symptoms persist after six months, a diagnosis of *complicated grief* can be made and there is a definite indication for clinical intervention. Complicated grief prolonged over time has been shown to have negative effects on health, social functioning, and mental health.³⁸⁻⁴⁰

Sometimes sustained and intense grief can become a chronic debilitating condition. Approximately one in ten bereaved people experience complicated grief, with higher rates amongst those bereaved by disaster or violent death, or with parents who lose a child. Complicated grief involves:³

- prolonged experiences of grief, usually for more than one year
- intense yearning for the deceased; rumination about the death
- ongoing reactive distress related to the death, *i.e.*, anger, bitterness and self-blame
- sense that life is futile or meaningless; detachment from others.

For veterans who have experienced the death of a close friend or relative at least 12 months earlier, they should be asked if they have experienced any of the following symptoms more days than not at levels that impair functioning and cause significant distress:¹¹

- persistent yearning for and/or preoccupation with the deceased
- reactive distress to the death, *i.e.*, difficulty accepting the death, emotionally numb, bitterness related to death and difficulty having positive feelings related to the deceased
- disruption of social roles and identity, *i.e.*, difficulty trusting and feeling detached from others, feeling that life is meaningless without the deceased.

If the patient endorses more than one of the above experiences, further assessment of complicated grief is warranted. Complicated grief can be a risk factor for suicide. The clinician should ask about suicidal ideation using direct and unambiguous questions.

Assessment of Complicated Grief in Returning Veterans

Grief symptoms including sadness, distress, guilt, anger, intrusive thoughts, and preoccupation with the death should be declining after about six months during a normal grieving process. If symptoms remain very high after six months, clinical intervention is warranted.

There are several instruments that may be helpful in assessing a complicated grief. The Inventory of Complicated Grief-Revised is perhaps most widely used and reflects current bereavement research. Another instrument is the Texas Revised Inventory of Grief, which has been used in a variety of populations and has been well validated. Both allow comparisons with normative populations.¹

Risk Of Suicide In Veterans

Suicide prevention experts usually use the term suicide screening to refer to a procedure in which a standardized instrument or protocol is used to identify individuals who may be at risk for suicide. Suicide screening can be done independently or as part of a more comprehensive health or behavioral health screening. Screening may be done orally (with the screener asking questions), with pencil and paper, or using a computer.⁴¹

Suicide assessment usually refers to a more comprehensive evaluation done by a clinician to confirm suspected suicide risk, estimate the immediate danger to the patient, and decide on a course of treatment. Although assessments can involve structured questionnaires, they also can include a more open-ended conversation with a patient and/or friends and family to gain insight into the patient's thoughts and behavior, risk factors (*i.e.*, access to lethal means or a history of suicide attempts), protective factors (*i.e.*, immediate family support), and medical and mental health history.¹⁴

Suicide assessment is characteristically used when there is some indication that an individual is at risk for suicide; for example, when a patient has been identified as such by a suicide screening or a clinician notices some signs that a patient may be at risk. Suicide assessment is also used to help develop treatment plans and track the progress of individuals who are receiving mental health treatment because they have been assessed as being at risk for suicide.⁴²

Suicide and other forms of suicidal self-directed violence are a persistent and growing public health problem for the U.S. and for U.S. veterans. There were 19.3 million military veterans in the United States in 2014.⁵⁶ Veterans make up approximately 6% of the U.S. estimated population of 321,418,820;⁵⁷ and, according to estimates from the Centers for Disease Control and Prevention (CDC), veterans account for approximately 20% of the deaths from suicide in the United States. More recent estimates from the VA increase this estimate to 22%. Applying these proportions to the 36,900 suicides that occurred in the U.S. in 2009 and the 38,600 that occurred in 2010, leads to estimates that 18-22 veterans die from suicide each day.⁴³

Statistics have shown that all veteran men and women are at greater risk for suicide than the general population. Some study results show that psychological distress still exists many years after deployment. For this reason, a suicide risk assessment is vital to perform in all psychiatric interviews. According to the Nurse Practitioner (NP) standards of care, assessing a patient requires effective communication skills for interviewing, behavioral observation, and comprehensive assessment of the patient and relevant systems. This enables the clinician to make clinical judgments and plan appropriate interventions with the patient. Furthermore, the use of an

assessment tool can only help in evaluating the patient. The treatment provider must use every skill and resource available to achieve the ultimate goal of prevention of suicide attempts and completions.^{25,30}

Whether or not all veterans are at increased risk, suicide rates are substantially increased among those who use VHA health care services. Information from the Office of Mental Health Operations on causes of death for all veterans who use VHA health care services since 2000 demonstrates that rates among users are higher than those of the general population. Users of VHA services account for 1600-1900 suicides per year or about 5 per day with rates of approximately 36 per 100,000 patient years, 38 per 100,000 among men, and 15 per 100,000 among women. Among the deaths from suicide, approximately half had a diagnosis of a mental health condition recorded in their medical records in the year prior to their deaths, and approximately three-fourths within the past five years. For those with a mental health diagnosis within the past year, the rate of suicide was noted to be 70 per 100,000.⁴⁴

Assessment of Suicidal Ideation

Suicidal events often start with suicidal ideations and progress over minutes, days, or years toward suicidal and potentially injurious behaviors. Each step along this progression presents an opportunity to intervene to prevent a suicidal attempt. Suicidal ideations are thoughts of suicide-related behaviors and/or wanting to die in a self-inflicted manner. Early identification of suicidal ideations before suicide attempts is critical as it provides the greatest opportunity to reduce risk of suicide injuries and death.¹⁴

Important aspects to consider while inquiring about suicidal ideations include onset, duration, intensity, frequency, active versus passive nature, plan

lethality, recent stressors, relieving and aggravating factors, association with substance use, and level of comprehension of potential outcomes of actions. Suicidal intent should also be assessed and involves explicit or implicit evidence that the person wants to die, has the ability to act on thoughts, and understands the potential outcome of the actions.⁴⁵

Factors to consider while evaluating suicidal intent include impulsivity, amount of determination to act, and strength of desire to die. Suicidal or preparatory behaviors include any behavior that indicates preparation for self-directed death. Inquiry may comprise questions about practicing a suicidal plan, seeking a location for the event, determining likelihood of rescue, lethality of plan, and making life changes to prepare for self-directed death. In addition to inquiring about suicidal ideation, intent, and behavior in a patient at risk for suicide, risk factors should also be considered.⁴⁶

Ideally, a patient is identified before any suicidal behavior occurs. Early identification of suicidal ideation presents the greatest opportunity to reduce the risk of suicide attempt and death. The suicide continuum is understood to begin with suicidal thoughts, evolving into a wish to die, consolidated into an intention to act, and resulting in a methodology or plan formulated to end one's life. The evolution of these steps can occur over minutes or years. Each step along the continuum presents an opportunity to intervene and prevent the act of suicidal self-directed violence. All too often, a patient is identified after a suicide attempt is made. Often the first opportunity to assess an individual's suicide risk occurs because of the demonstration of warning signs that are identified by a caregiver, gatekeeper, or loved one. Recognition of warning signs is the key to creating an opportunity for early assessment and intervention.⁴⁴

Suicide risk assessment is not absolute. There are no clear, validated predictive models or risk stratification definitions. For simplicity's sake, many guidelines will recommend a three-tier stratification system to define 1) those patients in need of immediate intervention in order to prevent a suicide attempt, 2) those patients at elevated risk of suicidal behavior in the future and in need of a clinical intervention, and 3) those for whom the risk of suicide is not significantly elevated, but may benefit from an intervention. The stratification of assigned level of the acute risk (high, intermediate, and low) was developed by consensus, with full recognition that an equally good case could be made for other terms. The importance of determining the level of risk is that it will inform the decision made to select a care setting, and the management and treatment plan to follow. It is worth remembering that no individual is at "no risk" of suicide, so these strata are an imperfect attempt to rationalize clear distinctions from within a continuum of risk with no absolute cutoffs.¹⁴

Suicide Risk Factors

Although healthcare professionals have an opportunity to identify at-risk individuals and engage them in treatment to reduce suicidal self-directed violence, many health clinicians are uncertain how to assess for suicide risk. Several risk factors for suicide and suicidal self-directed violence have been identified, most notably older age, male gender, physical and mental health disorders (including depression and substance use disorders), familial and genetic influences, impulsivity, poor psychosocial support, and access to and knowledge of firearms. Several psychological autopsy studies of the events leading up to suicide have suggested the majority of individuals who die by suicide exhibit symptoms of depression or other mental health issues prior to death.⁴⁷

The relative importance of some of these traditional risk factors, as well as the influence of population-specific risk factors, may be unique among military personnel and veterans. The prevailing male demographic, along with high rates of post-traumatic stress disorder, substance use disorders, and other mental health disorders, may especially contribute to the risk of suicidal self-directed violence in military and veteran populations. In addition, several aspects of military experience can increase the risk for mental health and substance use, which in turn are risk factors for suicide. Other risk factors unique to the military experience could also contribute to overall suicide risk, including military rank, combat exposure, traumatic brain injury, habituation to violence, and deployment-related stressors (*i.e.*, strained or long distance relationships, relocation, post-deployment adjustment).^{41,48}

Many military and veteran personnel will have one or more of these individual risk factors, but relatively few of them are truly at-risk for suicidal self-directed violence. Suicide risk assessment tools need to account for the relationship among these different risk factors and identify risk factors or combinations of risk factors that are particularly associated with suicidal self-directed violence. To be practically useful, risk assessment tools would identify a threshold beyond which preventive action should be taken and be brief enough to be conducted in primary care settings where many of the at-risk persons may be seen. Ideally, such tools would identify all persons truly at-risk for suicidal self-directed violence (*i.e.*, have high sensitivity), while minimizing misidentification of persons who are not truly at high-risk (*i.e.*, high specificity) because subsequent preventive therapies may be time-consuming and costly.

Risk assessment tools should be able to identify those at high- and low-risk for suicidal self-directed violence. Given the rarity of suicide, this can be a difficult task. Estimates suggest that using an assessment tool with 0.80 sensitivity and 0.70 specificity, applied to 10,000 patients (10 of whom will attempt suicide), has a positive predictive value of 0.3 percent (8 true-positives, 2 false-negatives and 2,997 false-positives). Using a tool with 0.89 sensitivity raises the positive predictive value to 3.8 percent.⁵ These challenges require an enhanced understanding of suicide risk assessment in military and veteran populations. It is necessary for primary care and mental health clinicians to review the available evidence for risk factors and assessment tools developed for use in healthcare and other community settings that have been tested with veteran and military populations.^{46,49,50} Three direct warning signs are particularly indicative of suicide risk. These are when the patient is communicating suicidal thought verbally or in writing, is seeking access to lethal means such as firearms or medications, and is demonstrating preparatory behaviors such as putting his or her affairs in order. Presence of one or more of these warning signs is a strong indication that further assessment is needed.⁵¹

The evidence is insufficient to recommend a specific suicide risk assessment tool that can predict those who will commit suicide with definitive accuracy. In addition, there is a lack of validated predictive or risk stratification models. However, a comprehensive clinical assessment informed by identified risk factors in combination with an assessment of content of suicidal thoughts and behaviors may improve risk management and allow opportunities for intervention. Although not intended to be all-inclusive, the aim of the following section is to discuss key risk factors for suicide, including those that are particularly applicable to the veteran population.^{14,42}

Demographic and Family History Factors

Some of the known demographic risk factors for suicide in veteran and nonveteran populations include Caucasian race, male sex, adolescence, and old age. Younger age, marital status, lower education level, and unemployment are also possible risk factors for suicidal behaviors. Other risk factors include childhood maltreatment and family history of suicidal behavior and mental disorders. Demographic and family history factors add a potentially predictive component to overall suicide risk assessment and may act as moderating agents for other, more modifiable risk factors.^{52,53}

Psychiatric Factors

Prior suicidal behavior is a strong risk factor for future suicide in veteran and nonveteran populations. Clinicians should consider screening for prior suicide attempts and inquiring about the details surrounding any past suicidal events, including seriousness of intent and lethality of attempt.⁴⁶

While a history of suicidal behavior is a clear predictor of suicide risk, the most common risk factor for suicide is the presence of psychiatric illness, with one study of psychological autopsies reporting more than 90 percent of patients who committed suicide had a mental health disorder. Detection of certain mental health disorders with subsequent behavioral health referral or treatment may affect suicide risk. Depression, PTSD, and substance use disorders have a high prevalence in veteran populations and in primary care settings.

Depression has been identified as a key risk factor for suicide and, as mentioned, is prevalent in veteran and nonveteran populations and commonly encountered in primary care. Studies suggest a need for

improved assessments of depression and suicide risk, detection of comorbid substance use, optimization of psychiatric management, and adherence to guideline-based treatment in patients with depression. In addition, veterans often have difficulty disclosing symptoms of depression. The use of validated depression screening tools in this population may be particularly useful; however, veterans have been reported to have positive depression screens 6 to 12 months after an initial negative, immediate post-deployment screen, which implies reassessment for mental health disorders, such as depression, may be warranted, even after an initial negative screen.^{14,41,45,49,53}

Post-traumatic stress disorder has been described as a clinical syndrome characterized by various combinations of intrusive experiences, avoidance, and hyperarousal behaviors following exposure to a trauma or stressor. A 2013 literature review of PTSD and suicide risk among veterans showed a significant association between PTSD and increased risk for suicidal ideations, attempts, and completions in veterans. These findings are of particular concern considering PTSD has been reported in up to 29% of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) veterans receiving care at the VA in fiscal years 2002 to 2012. Even subthreshold PTSD symptoms have been found to be associated with increased expression of hopelessness and suicide ideations.¹⁵

Substance use disorders are highly prevalent in the veteran population and associated with an increased risk for suicide. The prevalence of drug use and addiction were 5 percent and 3 percent among OEF and OIF veterans, respectively, receiving care at the VA from 2002 to 2012, and alcohol was reported to be the most commonly used substance. Comorbid psychiatric disorders may further increase the risk for suicidal behavior in veterans with

substance use disorders. In addition to routine, repeat assessments for substance use in individuals at risk for suicide, the VA/DoD guideline recommends intoxicated patients at acute risk for suicide be monitored in an acute care setting and reassessed after they are sober.³⁴

Access to Means

Access to means is another established risk factor for suicide and is particularly relevant to the veteran population. Male veterans are more likely to use firearms to complete suicide than the general population, and guns are the most common means of suicide among male veterans. Furthermore, higher rates of firearm ownership have been associated with higher rates of suicide by firearms. Evidence supports the effectiveness of means restriction as a suicide prevention strategy. Veterans Health Administration suicide prevention initiatives include a gun safety program comprising distribution of gun locks and safety literature, as well as discussions of safe storage of firearms with patients and their families, particularly when veterans are experiencing crises.⁵⁴

Protective Factors

Protective factors are personal qualities and environmental resources that may buffer the risk for suicide. Examples include good impulse control, strong bonds to family, responsibilities to others, and spiritual and religious beliefs. While evidence on protective factors is limited, clinicians are encouraged to incorporate protective factors in risk formulations and treatment planning.

Once assessment is complete, clinicians should consider all gathered information to formulate the patient's level of risk in one of the following categories:⁵⁵

- High risk:

High risk includes patients with a recent suicide attempt, serious suicidal thoughts or plans and limited impulse control; the patient requires constant observation and monitoring while arranging for immediate transfer for psychiatric evaluation or hospitalization.

- Intermediate risk:

Intermediate risk comprises patients with current suicidal ideations but with good impulse control and no intent or preparatory behavior; individuals identified to be at intermediate risk in primary care settings should be evaluated by a behavioral health professional.

- Low risk:

Low risk includes patients with recent suicidal ideations who have good impulse control and no current suicidal thoughts, plans, or intent; patients identified as low risk in primary care should be considered for referral to a mental health clinician.

- Not at an elevated risk for suicide.

Suicide Risk Prevention

The VA has adopted a multifaceted approach to develop a comprehensive suicide prevention program and reduce suicide in the veteran population. This effort includes an increase in resources and funding to allow ready

access to high-quality mental health treatment, suicide prevention research and data collection, mandated staff education, and improved peer-support services. In addition, VA medical centers have added suicide prevention coordinators, staff members who are primarily responsible for coordinating mental health care for veterans at risk for suicide and educating patients, health professionals, and community stakeholders about suicide risk and prevention.⁵¹ Intervention and prevention activities target veterans who show 1) Imminent Risk, 2) Short-Term Risk, and 3) Long-Term Risk.

Selective prevention focuses on veterans with known risk factors for suicide. Individuals with only unmodifiable risk factors may be monitored more closely than other veterans. The modifiable risk factors most commonly targeted are PTSD, depression, and other mental health disorders associated with the risk of suicide. Interventions designed to improve the care and outcomes of mental health disorders apply not only to OEF/OIF veterans but also veterans of all eras including the oldest age veterans who are in the demographic subgroup of the general population whose rate of suicide is the highest.

Interventions to reduce the symptoms and outcomes of mental disorders include access to evidence-based psychiatric treatments as well as evidence-based services delivery models. For example, the VHA supports several primary care models of mental health care, including co-location of mental health professionals into primary care clinics and collaborative care models including the use of depression care managers in primary care.⁴¹ Indicated prevention interventions focus on individuals who have expressed suicidal thoughts and behaviors. The interventions therefore specifically target suicide and not just proximal risk factors. At the system level, interventions include training clinicians in high suicide risk management and supporting

suicide crisis lines for veterans. At the patient level, interventions include intensive monitoring and safety plans for such high-risk patients and evidenced-based pharmacotherapy and psychotherapy treatments for suicidal risk.⁴⁶

Appendix A Treatment of Co-Occurring PTSD and Substance Use Disorder

Prevalence and Characteristics

PTSD and SUD often co-occur. According to one national epidemiologic study, 46.4% of individuals with lifetime PTSD also met criteria for SUD (1). In another national epidemiologic study, 27.9% of women and 51.9% of men with lifetime PTSD also had SUD (2). Women with PTSD were 2.48 times more likely to meet criteria for alcohol abuse or dependence and 4.46 times more likely to meet criteria for drug abuse or dependence than women without PTSD. Men were 2.06 and 2.97 times more likely, respectively (2). There are few comparable population prevalence estimates among Veterans. A substantial majority of Veterans with PTSD have met criteria for comorbid substance use at some point. The National Vietnam Veterans Readjustment Study, conducted in the 1980s, found 74% of Vietnam Veterans with PTSD had comorbid SUD (3). Whether these findings generalize to other cohorts is unknown.

Much information about treatment-seeking Veterans comes from VA administrative data. For example, in a study of Operations Enduring Freedom (OEF) / Iraqi Freedom (OIF) / New Dawn (OND) Veterans, 63% of those diagnosed with alcohol use disorder (AUD) or other SUD also had a diagnosis of PTSD (4). Among Veterans diagnosed with AUD and another SUD, the rate of PTSD diagnosis was 76% (4). During the past 10 years, the

number of Veterans with comorbid SUD and PTSD in VA care has increased over three-fold; in 2012, the prevalence of PTSD among Veterans receiving specialized SUD care was 32% (5).

Although PTSD and SUD are each associated with functional impairment, on average, individuals who have both disorders have poorer treatment outcomes, more additional psychiatric problems, and more functional problems across multiple domains, including medical, legal, financial, and social, than those with just one disorder (6-8).

Research Regarding the Treatment of Co-Occurring PTSD and SUD

Psychotherapy

Individuals with PTSD and SUD can safely engage in and benefit from trauma-focused, cognitive behavioral psychotherapies for PTSD such as PE (9) and CPT (10). A meta-analysis suggests that patients with PTSD and SUD who received trauma-focused cognitive behavioral psychotherapy for PTSD along with SUD psychotherapy were more likely to reduce their PTSD symptoms and substance use than were patients who received SUD only treatment or treatment as usual (10). The effect sizes are small and dropout rates in the trauma-focused psychotherapies were higher than in treatment focused SUD only or treatment as usual. Therapies that were not trauma-focused and instead centered on improving coping skills were not associated with higher dropout than SUD only treatment or treatment as usual but also did not have better PTSD or SUD outcomes. For example, Seeking Safety, an integrated psychotherapy focused on improving coping skills that does not include trauma processing or exposure, has been widely implemented in VA and elsewhere, with high acceptability to patients and providers. Although early studies found support for Seeking Safety, the more rigorous randomized controlled trials in Veterans and non-Veterans suggest that it is

only comparably effective to SUD treatment alone for reducing symptoms of PTSD and substance use (11,12). Thus, while there is little evidence to favor use of non-trauma-focused psychotherapies for treating co-occurring PTSD and SUD, there is emerging evidence that favors the use of trauma-focused psychotherapies either concurrently with evidence-based SUD treatment or in an integrated fashion (9,13,14). More research is needed to determine comparative effectiveness and patient acceptability of the various psychotherapy approaches for concurrent treatment of PTSD and SUD.

Pharmacotherapy

Several studies have found limited success with adding a selective serotonin reuptake inhibitor (SSRI) to SUD treatment as usual (15-17). Combining medication and psychotherapy is a potentially effective strategy. One recent study found that the combination of PE plus naltrexone was more effective in reducing drinking 6 months following treatment completion than either treatment was alone (18). Although acute, time-limited use of benzodiazepines alleviates symptoms of alcohol withdrawal, the authors of the 2010 VA/DoD Clinical Practice Guideline for PTSD found no evidence that ongoing benzodiazepine treatment alleviates the core symptoms of PTSD (19). There is mounting evidence of harms associated with chronic benzodiazepine use in patients with PTSD, particularly those who also have an SUD (20).

Policy and Practice Recommendations

Assessment

Initial and ongoing assessment is critical to understanding the needs and progress of Veterans with PTSD and SUD. VA recently launched the Measurement Based Care (MBC) in Mental Health initiative (21). MBC is the

use of patient-reported information, collected as part of routine care, to inform clinical care and shared decision making, individualize treatment, and assess progress toward recovery goals. VA's initiative will use the PTSD Checklist for DSM-5 (PCL-5) for assessing PTSD and the Brief Addiction Monitor for assessing SUD.

Treatment

The 2010 VA/DoD Clinical Practice Guideline for PTSD recommends that evidence-based treatments for PTSD and SUD, including psychotherapy and medication, be available to Veterans (19). The VA Uniform Mental Health Services Handbook (22) requires that all VA Medical Centers provide access to either PE or CPT for Veterans with PTSD. Thus, PE and/or CPT should be accessible to Veterans with PTSD and co-occurring SUD.

To ensure that SUD is not a barrier to receiving best practice treatment for specific disorders such as PTSD, the Uniform Mental Health Services Handbook (22, p. 24) states, "When PTSD or other mental health conditions co-occur with substance use disorders, evidence-based pharmacotherapy and psychosocial interventions for the other conditions need to be made available where there are no medical contraindications, with appropriate coordination of care;" and, "Substance use illness must never be a barrier for treatment of patients with other mental health conditions. Conversely, other mental disorders must never be a barrier to treating patients with substance use illnesses."

Guidance that an SUD should not be a barrier to receiving PTSD treatment applies to residential treatment as well as outpatient. VHA Handbook 1162.02, Mental Health Residential Rehabilitation Treatment Programs (RRTPs) handbook (23, p. 15) states that Veterans cannot be denied admission to mental health RRTPs based on length of abstinence and that opioid replacement therapies such as buprenorphine and methadone should

be available in mental health RRTPs. A number of VA RRTPs report that they treat both PTSD and SUD (24) and preliminary research suggests that co-occurring PTSD and SUD can be treated effectively in residential settings (25).

There is no single ideal type of program for the treatment of co-occurring PTSD and SUD. Rather, best practice suggests a “no wrong door policy” where Veterans are welcome to participate in treatment for PTSD and SUD regardless of the type of program through which they access treatment (e.g., primary care, behavioral health interdisciplinary program, or specialty PTSD or SUD) or the level of care through which they receive treatment (e.g., outpatient, intensive outpatient, or residential) (26). To improve access to optimal care, in 2008 VA authorized funding for an SUD specialist to augment each facility’s specialty PTSD treatment services. These specialists work with PTSD specialty treatment providers to coordinate treatment planning and delivery of services and provide clinical care. Shared decision making using a patient centered, collaborative approach that includes the treatment team and the Veteran is recommended (27) to help engage and retain Veterans in care. Because there is no single level of care or evidence-based treatment that is recommended for all Veterans, using a patient centered, collaborative approach allows for tailoring of treatment to best meet each Veteran’s circumstances. MBC should be used to assess progress and to contribute self-reported outcome data into shared decision-making. Self-reported outcome data can be invaluable in PTSD and SUD treatment for Veterans and their treatment team in assessing whether gains are being made in symptoms and/or functional status, or whether discussions of a shift in services may be warranted in order to optimize treatment outcomes.

Appendix B Sleep Problems in Veterans with PTSD

Sleep problems, in particular chronic insomnia and nightmares, are frequently some of the most troubling aspects of PTSD. While these sleep problems are considered symptoms of PTSD, the evidence suggests that they tend to become independent problems over time that warrant sleep-focused assessment and treatment. There are both pharmacologic and cognitive behavioral treatment options available.

Prevalence of sleep problems in Veterans with PTSD

PTSD is unique among mental health disorders in that sleep problems are mentioned twice among its diagnostic criteria in DSM-5: the presence of insomnia qualifying as a symptom of an alteration in arousal and reactivity and the presence of frequent nightmares as an intrusion symptom. Insomnia is reported to occur in 90-100% of Vietnam era Veterans with PTSD (1,2). Insomnia was also the most commonly reported PTSD symptom in a survey of Veterans from Afghanistan and Iraq (OEF/OIF) (3). In the Millennium Cohort Study, 92% of active duty personnel with PTSD, compared to 28% of those without PTSD, reported clinically significant levels of insomnia (4). It has been argued that sleep problems, rather than being just symptoms of PTSD, are a hallmark of the disorder (5). In support of this viewpoint, insomnia occurring in the acute aftermath of a traumatic event is a significant risk factor for the later development of PTSD in civilian (6,7) and active duty (8) populations. Studies also indicate that insomnia often persists following PTSD-focused treatments such as Prolonged Exposure or Cognitive Processing Therapy (9,10). Even when PTSD-focused treatment has been associated with statistically significant improvements in sleep, effect sizes are small and not clinically significant.

There are fewer data on the prevalence of chronic nightmares with PTSD. In the National Vietnam Veterans Readjustment Study, 52% of combat Veterans with PTSD reported significant nightmares (1). In a second study in the general community, 71% of individuals with PTSD endorsed nightmares; and, compared to civilians with PTSD, the nightmares of Veterans were more likely to be a replay of their trauma(s) (11). Posttraumatic nightmares are independently associated with daytime distress, and impaired functioning (12,13). Nightmares frequently do not improve with trauma-focused treatment although the degree of improvement is larger for nightmares than for insomnia in general (9,10).

Treatment of sleep problems in PTSD

There are two primary approaches to treating sleep problems in PTSD, pharmacology (i.e. sleep medications) and psychotherapy. To date, little is known about the efficacy of using both approaches concurrently. The preferred treatment approach, when available, is cognitive behavioral therapy.

Sleep Medications

There are a number of medications available that are either approved as sedative hypnotics (e.g. zolpidem) or that are used because of sedating side effects (e.g. trazodone, clonazepam). There are very few clinical trials examining the efficacy of these medications in Veterans with PTSD. Of note, some medications used to treat PTSD can cause or exacerbate insomnia (e.g. SSRIs). For a more detailed review of psychopharmacology for PTSD, see Clinician's Guide to Medications for PTSD.

Cognitive Behavioral Therapy for Insomnia

When available, cognitive behavioral therapy for insomnia (CBT-I) is a preferred treatment approach for sleep problems. CBT-I is a series of

strategies focused on sleep hygiene, stimulus control, sleep restriction, and cognitive restructuring that can be delivered in either individual therapy or in a group format with 6-10 patients. Treatment length is typically 6 sessions but ranges from 4-8 sessions for most patients.

CBT-I has demonstrated efficacy in patients with primary insomnia as summarized in three meta-analyses (14-16). CBT-I demonstrated sustained improvement in insomnia symptoms on follow-up assessments ranging from 1 to 3 years. The durability of treatment effects is a clear advantage over long-term pharmacotherapy, as are the lower risks of side effects and potential drug interactions. A recent randomized trial in Veterans with PTSD found that CBT-I led to greater improvements in sleep and disruptive sleep-related behaviors than wait list, demonstrating the efficacy of CBT-I in this population (17). Improvements were maintained at 6 months.

VA CBT-I Rollout

In an effort to increase the availability for Veterans of empirically supported treatments for sleep problems, VA created a national dissemination program for CBT-I several years ago. Through this program, VA mental health providers can attend a 3-day intensive workshop to learn the fundamentals of CBT-I. Participants then meet weekly by phone with a consultant who reviewed recordings of CBT-I sessions in order to provide feedback to facilitate the learning process. This has been the largest CBT-I dissemination program ever conducted, with several hundred providers having attended the training, greatly increasing access to this standard care. Clinical outcomes data from the trainees have been collected demonstrating large improvements in insomnia over the course of treatment (18,19).

Group CBT-I

CBT-I can be delivered both individually and in a group format. Within VA, a typical CBT-I group consists of 6-8 Veterans and meets weekly for about 6 weeks for 90 minutes per visit. The material is the same as in individual CBT-I with the added element of hearing the experiences of other Veterans with insomnia. A recent meta-analysis found that clinical improvements from group CBT-I were generally strong but slightly smaller than for individual treatment (20).

Telehealth Delivery

Even with the national dissemination of CBT-I and the option to deliver in a group, many VA facilities still do not have access to a trained CBT-I provider or the demand for treatment is greater than available provider time. The latter is not really surprising given the high prevalence of insomnia in Veterans, especially among those with PTSD. Another option for increasing access to treatment is the use of clinical video telehealth (CVT) technology. CVT allows a provider with a video camera and monitor to provide treatment to a patient at another location with similar equipment. The content of treatment is the same, but it is delivered over a distance. This technology allows a provider to have a greater reach with treatment. It is even possible to deliver treatment to Veterans in their own home if they have the necessary computer equipment.

Treatments for Nightmares

There are fewer treatment options available for nightmares. In terms of pharmacotherapy, the main option available is prazosin, an alpha-adrenergic antagonist usually used for the treatment of high blood pressure. Prazosin has been found to be effective for reducing nightmares and improving sleep in Veterans with PTSD in multiple trials (21,22). A psychotherapeutic approach to treating nightmares is an approach called imagery rehearsal (IR), which is also called nightmare rescripting because it entails choosing a

recurrent nightmare and picking a way to change (i.e. re-script) the content in a way to make it less intense or distressing. There are several trials with positive outcomes of IR in civilian populations (e.g. 23) but a large, randomized trial in Vietnam Veterans with PTSD failed to demonstrate clear efficacy (24). A recent systematic review found that most of the clinical trials to date were of mixed scientific rigor (25). Additional studies are needed before conclusions can be made regarding the efficacy of this treatment approach.

In summary, sleep problems are highly prevalent in Veterans with PTSD. Rather than just being a symptom of PTSD the sleep problems can become an independent disorder over time that is uniquely associated with significant distress and impairment. Fortunately, there are efficacious treatments available for both insomnia and nightmares. In many cases, sleep-focused treatment will be needed to maximize patient outcomes.

Summary

Military deployment may have a profound effect on military personnel, and understanding mental illness and how to screen, diagnose and treat mental illness is important for the healthcare professional. Veterans and their families may experience medical and mental health issues as they reintegrate into their communities during or after their terms of military service.

Veterans from recent military conflicts have, or have been diagnosed with, post-traumatic stress disorder, major depression, or both PTSD and major depression at significant rates. Since 2001, 2.4 million active duty and reserve military personnel were deployed to the wars in Iraq and

Afghanistan. Thirty percent of this group, nearly 730,000 men and women, have or will be diagnosed with a mental health condition requiring treatment. These issues arise during deployment, as well as when veterans and their families confront reintegration into their communities.

Current and former members of the military may not always volunteer information about their military service. Furthermore, veterans may not be willing to share their experiences, especially when they cause them mental anguish. It is important for healthcare professionals to ask patients and their family members about military involvement to properly assess the risk of mental health conditions, including PTSD, substance use depression, grief, and risk of suicide. With the right screening questions, mental health and primary care clinicians have the opportunity for early intervention to mitigate the impact of these conditions.

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The References below include published works and in-text citations of published works that are intended as helpful material for your further reading.

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