Suicidal behavior is a critical problem in war veterans. Combat veterans are not only more likely to have suicidal ideation, often associated with posttraumatic stress disorder (PTSD) and depression, but they are more likely to act on a suicidal plan. Especially since veterans may be less likely to seek help from a mental health professional, non-mental-health physicians are in a key position to screen for PTSD, depression, and suicidal ideation in these patients. The authors discuss the association of PTSD, depression, and suicide in veterans, keys to assessment of suicide risk, and interventions.

**Key Points**

The association of suicidal ideation with PTSD and depression and the prevalence of these conditions in combat veterans underline the importance of recognizing and treating these conditions.

In veterans with PTSD related to combat experience, combat-related guilt may be a significant predictor of suicidal ideation and attempts.

Research addressing PTSD, depression, and suicidal behavior in war veterans is critically needed to improve our understanding of the nature of these conditions and how best to treat them.

Suicide can be viewed as a process that begins with suicidal ideation, followed by planning and then by a suicidal act, and suicidal ideation can be prompted by depression or PTSD. Suicidal ideation, defined as any thought of being the agent of one’s own death, is relatively common. Most people who attempt suicide report a history of suicidal ideation. In fact, current suicidal ideation increases suicide risk, and death from suicide is especially correlated with the worst previous suicidal ideation.

Suicidal ideation is an important predictor of suicidal acts in all major psychiatric conditions. In a longitudinal study in a community sample, adolescents who had suicidal ideation at age 15 were more likely to have attempted suicide by age 30.

The annual incidence of suicidal ideation in the United States is estimated to be 5.6%.

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**Abstract**

Suicidal behavior is a critical problem in war veterans. Combat veterans are not only more likely to have suicidal ideation, often associated with posttraumatic stress disorder (PTSD) and depression, but they are more likely to act on a suicidal plan. Especially since veterans may be less likely to seek help from a mental health professional, non-mental-health physicians are in a key position to screen for PTSD, depression, and suicidal ideation in these patients. The authors discuss the association of PTSD, depression, and suicide in veterans, keys to assessment of suicide risk, and interventions.
while its estimated lifetime prevalence in Western countries ranges from 2.09% to 18.51%. A national survey found that 13.5% of Americans had suicidal ideation at some point during their lifetime. About 34% of people who think about suicide report going from seriously thinking about it to making a plan, and 72% of planners move from a plan to an attempt. In the European Study of the Epidemiology of Mental Disorders, the lifetime prevalence of suicidal ideation was 7.8%, and of suicide attempts 1.3%. Being female, younger, divorced, or widowed was associated with a higher prevalence of suicide ideation and attempts.

Although terms such as “acute suicidal ideation,” “chronic suicidal ideation,” “active suicidal ideation,” and “passive suicidal ideation” are used in the clinical and research literature, the difference between them is not clear. Regardless of the term one uses, any suicidal ideation should be taken very seriously.

HABITUATION IN VETERANS

Interestingly, according to the Interpersonal-Psychological Theory of Suicide, the suicidal process is related to feelings that one does not belong with other people, feelings that one is a burden on others or society, and an acquired capability to overcome the fear of pain associated with suicide. Veterans are likely to have acquired this capability as the result of military training and combat exposure, which may cause habituation to fear of painful experiences, including suicide.

FEATURES AND CAUSES OF PTSD

PTSD—a severe, multifaceted disorder precipitated by exposure to a psychologically distressing experience—first appeared in the Diagnostic and Statistical Manual of Psychiatric Disorders (DSM-III) in 1980, arising from studies of veterans of the Vietnam war and of civilian victims of natural and man-made disasters. However, the study of PTSD dates back more than 100 years. Before 1980, posttraumatic syndromes were recognized by various names, including railway spine, shell shock, traumatic (war) neurosis, concentration-camp syndrome, and rape-trauma syndrome. The symptoms described in these syndromes overlap considerably with what we now recognize as PTSD.

According to the most recent edition of the Diagnostic and Statistical Manual, DSM-IV-TR, the basic feature of PTSD is the development of characteristic symptoms following exposure to a stressor event. Examples include:

- Direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity
- Witnessing an event that involves death, injury, or a threat to the physical integrity of another person
- Learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate.

People react to the event with fear and helplessness and try to avoid being reminded of it. Traumatic events leading to PTSD include military combat, violent personal assault, being kidnapped or taken hostage, experiencing a terrorist attack, torture, incarceration, a natural or man-made disaster, or an automobile accident, or being diagnosed with a life-threatening illness.

PTSD is a potentially fatal disorder through suicide. There may be differences in the psychobiology of PTSD and suicidal behavior between war veterans and civilians.

PTSD often coexists with other psychiatric illnesses: the National Comorbidity Survey found that about 80% of patients with PTSD meet the criteria for at least one other psychiatric disorder. Symptoms of PTSD and depression overlap significantly. Common features include diminished interest or participation in significant activities; irritability; sleep disturbance; difficulty concentrating; restricted range of affect; and social detachment.

PTSD also often coexists with traumatic brain injury and other neurologic and medical conditions. The clinician is more often than not faced with a PTSD patient with multiple diagnoses—psychiatric and medical.

Unfortunately, studies show that PTSD often goes unrecognized by non-mental-
SUICIDE IN VETERANS

Suicidal behavior is a critical problem in war veterans. During the wars in Iraq and Afghanistan, the US Army’s suicide rate has increased from 12.4 per 100,000 in 2003 to 18.1 per 100,000 in 2008. In the United Kingdom, more veterans have committed suicide since the end of the 1982 Falklands War than the number of servicemen killed in action during the Falklands War. The South Atlantic Medal Association, which represents and helps Falklands veterans, believes that 264 veterans had taken their own lives by 2002, a number exceeding the 255 who died in active service. The suicide rate in Falklands War veterans is about three times higher than the rate in those who left the UK armed forces from 1996 to 2005.

Observations have suggested a relatively high prevalence of suicide ideation and attempts in different generations of war veterans and in different countries.

Suicidal ideation is more dangerous in war veterans than in the general population because they know how to use firearms and they often own them. In other words, they often possess the lethal means to act on their suicidal thoughts.

And female veterans may be more likely to commit suicide with a firearm. A US study observed that female veterans who committed suicide were 1.6 times more likely to have used a firearm and male veterans were 1.3 more likely, compared with nonveterans and adjusting for age, marital status, race, and region of residence.

DEPRESSION, PTSD, AND SUICIDE RISK

Suicidal ideation in war veterans is often associated with PTSD and depression, conditions that often coexist. And PTSD has been shown to be a risk factor for suicidal ideation in American veterans of the wars in Iraq and Afghanistan. In a survey of 407 veterans, those who screened positive for PTSD (n = 202) were more than four times as likely to endorse having suicidal ideation compared with veterans who screened negative for PTSD. In veterans who screened positive for PTSD, the risk of suicidal ideation was 5.7 times higher in those with two or more coexisting psychiatric disorders compared with veterans with PTSD alone.

Additional risk factors

Factors contributing to the risk of suicidal ideation and behavior in patients with PTSD include comorbid disorders (especially depression and substance abuse), impulsive behavior, feelings of guilt or shame, re-experiencing symptoms, and prewar traumatic experiences.

Recent studies have analyzed factors associated with suicidal ideation in US veterans of the wars in Iraq and Afghanistan. Pietrzak et al surveyed 272 veterans, of whom 34 (12.5%) reported contemplating suicide in the 2 weeks prior to completing the survey. Screening positive for PTSD and depression and having psychosocial difficulties were associated with suicidal ideation, while postdeployment social support and a sense of purpose and control were negatively associated with it.

Other authors found that only the “emotional numbing” cluster of PTSD symptoms and the “cognitive-affective” cluster of depression symptoms were distinctively associated with suicidal ideation. Maguen et al recently reported that 2.8% of newly discharged US soldiers endorsed suicidal ideation. Prior suicide attempts, prior psychiatric medication, and killing in combat were each significantly associated with suicidal ideation, with killing exerting a mediated effect through depression and PTSD symptoms.

Another recent study suggests that veterans reporting subthreshold PTSD (ie, having symptoms of PTSD but not meeting all the criteria for the diagnosis) were three times more likely to admit to having suicidal ideation compared with veterans without PTSD, which indicates that subthreshold PTSD may increase suicide risk.

Lemaire and Graham reported that prior exposure to physical or sexual abuse and having a history of a prior suicide attempt, a current diagnosis of a psychotic disorder, a depressive
disorder, and PTSD were associated with current suicidal ideation. Other factors related to suicidal ideation were female sex, deployment concerns related to training (a protective factor—ie, it reduces suicide risk by enhancing resilience and by counterbalancing risk factors), the deployment environment, family concerns, postdeployment support (a protective factor), and postdeployment stressors.

PTSD and depression: An additive effect
These findings also suggest that the coexistence of PTSD and depression increases the risk of suicidal ideation more than PTSD or depression alone. This is consistent with the concept of posttraumatic mood disorder, ie, that when these diagnoses coexist, they are different than when they occur alone, and that the coexistence increases the risk of suicidal ideation and behavior.51,52

HOW TO ASSESS SUICIDE RISK

Physicians are in a key position to screen for depression and PTSD in all their patients, including those who are veterans.31,53

Traumatic events of adulthood can be asked about directly. For example, “Have you ever been physically attacked or assaulted? Have you ever been in an automobile accident? Have you ever been in a war or a disaster?” A positive response should alert the physician to inquire further about the relationship between the event and any current symptoms.

Traumatic childhood experiences require reassuring statements of normality to put the patient at ease. For example, “Many people continue to think about frightening aspects of their childhood. Do you?”

Physicians working with war veterans suffering from PTSD or depression should regularly inquire about suicidal ideation, and if the patient admits to having suicidal ideation, the physician should ask about the possession of firearms or other lethal means.

This type of screening has limitations. Fear of being socially stigmatized or of appearing weak may prevent veterans from disclosing thoughts of suicide. And one study34 found little evidence to suggest that inquiring about suicide successfully identifies veterans most at risk of suicide.

Indirect indicators of suicidality
Identifying indirect indicators of suicidal thoughts is also important: these can include pill-seeking behavior; talking or writing about death, dying, or suicide; hopelessness; rage or uncontrolled anger; seeking revenge; reckless or risky behaviors or activities; feeling trapped; and saying or feeling there is no reason for living.53

Other warning signs include depressed mood, anhedonia, insomnia, severe anxiety, and panic attacks.56 A prior suicide attempt, a family history of suicidal behavior, and comorbidity of depression and alcoholism are associated with a high suicide risk.56–59

Suicidal behavior is more common after recent, severe, stressful life events and in physical illnesses such as HIV/AIDS, Huntington disease, malignant neoplasm, multiple sclerosis, peptic ulcer, renal disease, spinal cord injury, and systemic lupus erythematosus. This is true in both veterans and nonveterans.60

Useful questions
Useful questions in the assessment of suicidal risk can be formulated as follows61:

• How have you reacted to stress in the past, and how effective are your usual coping strategies?
• Have you contemplated or attempted suicide in the past? If so, how many times and under what circumstances? And how is your current situation compared with past situations when you considered or attempted suicide?
• Do you ever feel hopeless, helpless, powerless, or extremely angry?
• Do you ever have hallucinations or delusions?

The role of guilt
It is important to ask about guilt feelings. Hendin and Haas62 observed that in veterans with PTSD related to combat experience, combat-related guilt was the most significant predictor of suicide attempts and of preoccupation with suicide after discharge. Combat veterans may feel guilt about surviving when others have died, acts of omission and commission, and thoughts or feelings.63 Some have suggested that guilt may be a mechanism through which violence is related to PTSD and major depressive disorder in combat veterans.64

Suicidal ideation is more dangerous in war veterans than in the general population because they know how to use firearms and they often own them.
SUICIDE IN VETERANS

INTerventions

Patients with comorbid depression, PTSD, and suicidal ideation are usually very sick and should be referred to a psychiatrist. They are usually treated with antidepressants, such as paroxetine (Paxil) or sertraline (Zoloft), and psychotherapy. Patients who have a suicidal intent or a plan should be referred to an emergency department for evaluation or hospitalization. All veterans should be given the toll-free phone number of the Veterans Crisis Line (1-800-273-8255), a US Department of Veterans Affairs (VA) resource that connects veterans in crisis and their families and friends, with qualified VA professionals.

As with many illnesses, such as cancer, suicidal behavior is most treatable and yields the best outcome when diagnosed and treated early. And the earliest manifestation of suicidal behavior is suicidal ideation.

The association of suicidal ideation with PTSD and depression underlines the importance of the timely diagnosis and effective treatment of these conditions among war veterans. Veterans experiencing subthreshold PTSD or depression may be less likely to receive mental health treatment. This indicates that non-mental-health clinicians should be educated about how to detect PTSD and depression symptoms. They may also help to detect suicidality early, which may help save lives.

Promoting social, emotional, and spiritual wellness

Our patients remind us every day that the work we do matters, that we have much more to learn, and that the more we understand suicidal behavior in veterans, the more we can do to reduce their suffering. We need to promote their social, emotional, and spiritual wellness. Encouraging resilience, optimism, and mental health can protect them from depression, suicidal ideation and behavior. Resilience can be promoted by teaching patients to:

• Build relationships with family members and friends who can provide support
• Think well about themselves and identify their areas of strength
• Invest time and energy in developing new skills
• Challenge negative thoughts; try to find optimistic ways of viewing any situation
• Look after their physical health and exercise regularly
• Get involved in community activities to help counter feelings of isolation
• Ask for assistance and support when they need it.

Our knowledge about what works and what does not work in suicide prevention in veterans is evolving. Research addressing combat-related PTSD, depression, and suicidal behavior in war veterans is critically needed to better understand the nature of these conditions.

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