Suicide Risk Factors Among Veterans: Risk Management in the Changing Culture of the Department of Veterans Affairs

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Abstract

Suicide risk management in the Department of Veterans Affairs (VA) health care system is particularly challenging because of both patient characteristics and aspects of the delivery system. The prototypical suicide-prone person is an older white male with alcoholism, depression, physical problems, and poor psychosocial support. This describes a large portion of the veteran patient population. Suicide risk factors that are common in VA patients include male gender, older age, diminished social environment support (exemplified by homelessness and unmarried status), availability and knowledge of firearms, and the prevalence of medical and psychiatric conditions associated with suicide. A variety of characteristics of the VA system complicate suicide management. Efforts under way to emphasize ambulatory care and decrease the VA culture of reliance on inpatient treatment heighten the importance of accurate suicide assessment. The authors recommend several strategies that VA administrators can consider for improving the assessment and management of veterans with long-term suicide risk factors.

The Department of Veterans Affairs (VA) provides the largest integrated mental health program in the United States, delivering psychiatric and substance abuse treatment services to over 500,000 veterans each year.[1,2] It is easily arguable that staff of the VA perform more suicide assessments than those of any other health care organization.

Historically, VA was organized around inpatient care delivery, with the emphasis on large hospitals rather than clinics.[1,3] Psychiatric care was provided by ready access to large numbers of inpatient beds, where extended stays were typical. A new "prescription for change" promoted by top VA management encourages the use of outpatient and partial hospital levels of care, de-emphasizes inpatient care, and fosters continuity of providers across the spectrum of care.[4] As a result, veterans must pass a more stringent admission screening process to be admitted to a psychiatric unit and can expect much shorter lengths of stays. Accurate suicide assessment is critical at both ends of the brief admission episode, to maximize the appropriateness of admissions and to ensure patient safety at the time of discharge.

Little has been written about the administrative and clinical challenges that will be involved in making these necessary changes in the VA. Specific challenges include the high levels of suicide risk factors in the VA psychiatric population, the historic overreliance on inpatient treatment that has characterized VA care, and the intense political and media scrutiny of VA activities. Adverse

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outcomes such as suicide are not only devastating to patients, families, and clinicians but also can become the focus of intense publicity.

This article reviews those features of the VA patient population that increase suicide risk and complicate suicide assessment, and discusses the challenge VA mental health administrators face in assuring the proper management of this population at high risk of suicide.

A Review of Suicide Risk Factors in the Veteran Population

Table 1 summarizes data on the estimated prevalence of selected suicide risk factors in VA patients compared with the general adult population, using data from the United States Bureau of Statistics,[5] the Department of Veterans Affairs,[6] and other sources as noted. Risk factors for suicide have been well described.[7-9] The long-term suicide risk factors frequently seen in the veteran psychiatric population reflect the important suicide risk factors noted in the literature.

Preponderance of Male Gender

Male gender is consistently associated with an increased lifetime risk of completed suicide in studies that examine gender.[7,8] The risk ratio is about 3 (male) to 1 (female) for completed suicide, and although women may have more frequent attempts and nonlethal self-injurious behaviors, males are more likely to be successful in their suicide attempts.[9] About 95% of veterans are male,[2] compared to slightly less than half of the general population.[5] The preponderance of males increases the statistical suicide risk of veterans as a group, compared to the general population.

The Large and Growing Number of Older Veterans

Gender and age interact to increase the risk of suicide in veteran populations. It is projected that by the year 2000, 37% of the overall veteran population will be 65 years of age or older,[3] compared to about 12% of the national population. Forty-two percent of all inpatient care episodes in the VA were of veterans aged 65 or older in 1994.[6] Many of these older veterans fit the profile of those individuals most statistically at risk of suicide: older white males with poor health, diminished psychosocial support, and a high frequency of depression and substance abuse problems.[9-12] Suicide by firearm is the most common method in this older age group, where the suicide attempt to completion ratio approaches 1:1.[10] In those over age 85, the male-female ratio for completed suicide rises to as high as 12:1, compared with 3:1 in younger patients.[13] White males over 65 have the highest suicide rate of any demographic group, losing 43.5/100,000 annually, and as many as 75/100,000 annually for those over age 85.[10,14-16]

Presence of Mental Illnesses Associated With Suicide

Alcoholism, drug abuse, mood disorders, and schizophrenia are the most significant diagnostic risk factors for suicide.[17-19] Completed suicide seldom occurs in individuals without one or more significant mental illnesses, which are overrepresented in veteran patient populations. Alcoholism statistically increases the risk of completed suicide when found with other suicide risk factors.[20] Alcoholism is commonly found as a comorbidity with other high suicide-risk mental illnesses in the veteran psychiatric population. Combat-related post-traumatic stress disorder, frequently seen with depression and alcoholism, contributes another suicide risk factor to many veterans,[21,22] especially those wounded in combat.[23] Extensive comorbidity of these high-risk diagnoses was found on a VA general psychiatric unit.[24] In a recent study of over 1,000 VA medical and surgical inpatients, 46.5% met lifetime criteria for at least one psychiatric disorder, most frequently alcohol abuse or dependence (32.5%), post-traumatic stress disorder (10.0%), and major depression (9.0%).[25] National VA data show the five suicide-prone disorders above accounting for 77% of the primary diagnoses at the time of discharge from VA inpatient psychiatric beds (p. 40).[2]

Table 1

Estimated Suicide Risk Factors in VA[a] Patients Relative to the General Population

Suicide Risk Factor	Overall U.S. Population	VA Mental Health Patients	Odds Ratio	VA Medical Surgical Inpatients	Odds Ratio
Male[b]	48.8%	94.5%	1.9	95%	1.9
Age over 65[b]	12%	32%	2.7	65%[g]	5.4
High-risk psychiatric diagnosis[b]	15%	80%	4.7	47%	3.1
Chronic physical illness[c] (1 or more diagnoses)	20%	60%	3.0	90%	4.5
Poor social support[d] (1 or more indicators)	35%	80%	2.3	50%	1.4
Firearm availability	25%[e]	75%[f]	3.0	n.a.	n.a.

a. VA = Department of Veterans Affairs.
b. References 2, 5, 6, and 25.
c. Estimated by the authors from references 3, 10, 26, and 27.
d. Estimated by the authors from references 30 and 31.
e. Reference 32 (refers to household gun ownership in a control group).
f. Reference 35 (refers to individual gun ownership; household ownership may be higher).
g. Reference 25, includes veterans age 60 to 65.

Poor Physical Health

Poor physical health has been cited as both a risk factor and a precipitant of suicide attempts, especially in older men.[10,26] Characteristics of the veteran population that increase the proportion of those physically ill include gender and age profiles, and substance abuse. Tobacco smoking, an important contributor to increased morbidity, is significantly more common among veterans, with 74.2% of the veteran population having ever smoked compared with 48.4% of the general population.[27] In the general population, 80% of those over age 65 have at least one significant chronic medical problem,[28] and veterans tend to have more numerous health problems and complications than the general population.[3] This excess of medical burden adds another dimension of suicide risk for veteran patients.

Poor Psychosocial Support

Three indicators of the level of psychosocial support are the presence of adequate family income, marital support, and a stable place to live. Veterans seen in VA care facilities fair poorly on these three parameters compared to the general population. Although the average annual income for all veterans is slightly higher than the national average,[5] those who seek care at VA facilities often have less income and social support, and are likely to be uninsured. In 1987, about 12% of all veterans had total family incomes less than $10,000; this included over 2,800,000 veterans.[3,29] The median annual income for all veterans discharged from VA inpatient psychiatry beds between January 10, 1994 and March 31, 1995 was only $7,817,[2] compared with a median income of $20,950 for adult nonveterans in the general population.[6] Of the same sample of discharged veterans, only 28.8% were married. In a subgroup of veterans seeking psychiatric admission at our VA Medical Center, only 2.2% were married.[30] Veterans comprised 41% of the homeless population in 1986-87.[31] In the youngest age cohort, 20 to 34 year olds, veterans were 4.76 times more likely to be homeless than were nonveterans. The VA saw over 24,000 homeless veterans through outreach programs in 1994.[6]

Psychosocial support deficits further potentiate suicide risk, especially in those poorer veterans who most frequently use VA services.[32]

Availability of, and Familiarity With, Firearms

The ready availability of a firearm has emerged as an independent risk factor for suicide, especially when loaded guns are kept in the home.[33-35] The one study that looked at gun ownership in combat veterans found that all 32 subjects studied had owned a gun since discharge from the military, and 75% currently kept a firearm.[36] Over half of this group of veterans kept a loaded firearm at the bedside, 59% had considered suicide with their weapon, and 38% had loaded their firearm with suicide in mind while intoxicated. Although there are no recent surveys of individual firearm ownership in the United States we are aware of for comparison, possession of firearms appears to be increased in at least some subgroups of veterans. Combat veterans are highly trained and experienced in the use of firearms and often report feeling more secure and in control with a gun. In addition to adding another risk factor to the veteran patient population, a high prevalence of gun ownership provides an outlet for suicidal behavior that is quite frequently fatal.

System-Based Challenges to Suicide Assessment and Screening

In addition to these population-based suicide risk characteristics, a variety of system-based and historical issues complicate the process of suicide assessment and risk management in the VA health care system.

Inadequate Tracking and Data Collection of Veteran Suicides

There are few accurate data available regarding suicide rates in the veteran population. A survey of VA facilities published in 1995 found a completed suicide rate of 8.17 per 100,000 per year, which is less than the adjusted national average of 12.7 per 100,000 per year.[37] This is probably a gross underestimate, because many veteran suicides go unreported to the VA. Only 37 of the 167 VA facilities responding to the survey had any mechanism for detecting veteran suicides that are not reported directly to the facility, and these facilities reported significantly higher suicide rates. The most common approach among facilities that did have a detection mechanism was a formal agreement with the county medical examiner or coroner, so out-of-county suicides were still undetected.

Incentives That Encourage Hospitalization

The large number of demographic and diagnostic factors associated with suicide in the veteran population make a careful and cautious suicide assessment imperative, especially when a veteran presents with suicidal ideation. Unfortunately, some patients fabricate or exaggerate their presentation of suicide in the psychiatric admissions screening process,[30] or once in the hospital, in an attempt to prolong their stay. Motivations for this behavior include lack of shelter, legal difficulties, and pursuit of support for disability claims. Characteristics of the VA that encourage this behavior include the lack of copayment and the payment of full disability benefits for 21 or more consecutive inpatient days for a partially compensated condition. In addition, until recent legislation, "upside-down" eligibility rules made many veterans eligible for inpatient care but not outpatient services, so that a more serious presentation was required to access treatment in the system.[3]

A veteran who exaggerates or fabricates a presentation of suicide risk at one point in time may be sincerely suicidal at another, so a great deal of judgment is required in making suicide assessments in the VA. The decreasing number of inpatient beds, shorter lengths of stay, and the emphasis on ambulatory care all increase the need to carefully screen admissions and discharge veterans to a less

restrictive level of care when stable. In addition, an acute psychiatric inpatient unit may not be the best place to address suicide risk factors such as poor social support and substance abuse.[30]

Insufficient Education and Awareness of Medical Staff

Psychiatric disorders that directly contribute to suicide risk are often underrecognized by non-mental health staff.[38] Even when significant mental disorders are discovered, treatment is usually inadequate or nonexistent, especially for elderly patients.[39] In the VA, a high proportion of direct medical and surgical care is provided by trainees,[40] who may not be as sensitive to suicide risk factors as more experienced clinicians. Residents may come to VA wards and clinics with negative preconceptions that inhibit their ability to be attentive to signs of mental disorder that indicate a risk of suicide. No system-wide education regarding suicide assessment or management exists in the VA. Although 60% of VA facilities reported some level of staff training in managing suicidal behavior,[37] the quality and focus of this training varies across the country.

The Politically Sensitive and Highly Visible Position of the VA

The Department of Veterans Affairs is a cabinet-level agency, and as such it is sensitive and vulnerable to negative publicity. Compared to other health care systems, problems in the VA receive extensive and often critical media coverage.[3] Mitigating issues, such as the challenge that the VA faces managing large numbers of veterans with many suicide risk factors, are seldom addressed in news coverage of veteran suicides. The high profile such adverse outcomes can assume may discourage clinicians and administrators from making innovative attempts to manage high-risk patients in the community.

On the basis of the history of inpatient emphasis in the VA, there are often strong expectations of families and referring agencies that the veteran will always be admitted. When a VA clinician determines that some degree of suicide risk is present but hospitilization is not warranted, the advocacy and appeals process can extend all the way to the families' congressional representatives and senators.

Opportunities for Improvement

Although the VA faces many challenges in managing suicide risk, there are also a number of resources and potential strategies for managing the suicide-prone veteran patient population. In the most encouraging scenario, the VA could become a model for optimal systems management of a high-risk patient population. This section explores several of these opportunities, many of which are already under way at some level of planning or implementation in the VA system.

Encourage Continuity of Care Models (Case Management, Primary Care Teams)

Case management has been shown to improve the care of severely ill patients in community mental health settings[41] and shows promise in the management of veterans with complex comorbidity and multiple suicide risk factors.[42] Case management improves continuity by actively advocating for and supporting patients as they move through a treatment system. The philosophy of case management is very much in keeping with the interdisciplinary primary care team model in mental health programs, which is being implemented at a number of VA medical centers across the country. The continuity of care providers inherent to this model should be beneficial in managing a chronically suicide-prone case mix.

Extend Eligibility Reforms

Development and application of a coherent treatment plan to minimize suicidal behavior requires the use of all of the available levels of care in a system. The VA generally has a number of resources

needed to make a coherent treatment plan across levels of care. These services include mental health clinics, partial hospitalization programs, substance abuse treatment, specialized combat stress-syndrome clinics, and a variety of social support and rehabilitation programs, including domiciliaries. Recent legislative action defines eligibility priorities and mandates the same potential level of services to all veterans who are treated, without providing the funding necessary for expanded services.[43] It is still unclear how the law will be interpreted and applied. The full impact of this legislation waits to be seen, and further reform may be needed in the future.

Develop Crisis Intervention Services

Crisis intervention is an approach to stabilizing and supporting individuals in psychiatric and interpersonal crises through active psychosocial intervention and medication management. It is an effective technique for addressing the emergent needs of a suicide-prone population without excessive reliance on hospitalization. Limited experience demonstrates that crisis intervention can be safely and effectively applied in the VA mental health emergency room setting, resulting in cost savings.[44] Implementation of crisis intervention in the VA would require staff education and the strong administrative support of clinicians' decisions regarding admission.

Improve Access to Substance Treatment, Domiciliary Care, and Supported Housing

As noted above, substance abuse and lack of stable living situation are important contributors to veterans' suicide risk. Although acute detoxification and social work referrals occur on acute psychiatry units, chronic addiction and homelessness receive only temporary relief from short-term psychiatric hospitalization, resulting in "revolving door" admissions.[30] Impediments to access to substance abuse treatment, such as long waiting lists for inpatient rehabilitation programs, greatly contribute to the difficulty of providing appropriate management. Similarly, homeless programs and domiciliaries in the VA often refuse access to addicted or psychotic veterans, although these constitute a large portion of the homeless veteran population. A recent VA initiative to provide more accessible and timely substance abuse treatment on an ambulatory basis is a positive step in the right direction.[45] Improving accessibility to rehabilitation programs by accurately recognizing the severity of the veteran psychiatric population would also be helpful.

Develop Accurate Suicide Tracking Systems

A system for accurately detecting and tracking suicides among all veteran patients needs to be developed for the VA to assess the effectiveness of its interventions and changes. Media speculation about suicide rates in some subgroups of veterans, such as Vietnam veterans, is thought by some researchers to be greatly in excess of the actual numbers.[21] Unfortunately, even top VA management does not have accurate data on suicide rates in the patients served by the VA, and an unknown number of suicides go undetected.[37] The VA should design a system that facilitates notification of completed suicides from medical examiner and coroner's offices not only to local VA medical centers but also to a central tracking office.

Expand the Use of Computerized Records and Care Plans

The VA has developed a computerized clinical record system that could greatly enhance the care of veterans at high risk of suicide by providing ready access to the clinical record and treatment plan as patients move through the system. Detailed computerized care plans, including management suggestions for when the veteran presents with indications of suicide, can assist those who are applying crisis intervention in emergency settings. A component of the package could be used to document and track suicide risk factors. Once the VA computerized record is completely implemented, a nationally available electronic "chart" will be available wherever the veteran presents for care.[46]

Educate and Support Clinical Staff

Nonpsychiatry house staff and students encounter a large number of veteran patients with suicide risk factors. The VA could be an excellent setting for learning about suicide risk in medical patients and developing skills to screen for depression, alcoholism, and other treatable contributors of suicide risk. Guidelines to assist primary care physicians to recognize and treat depression are already available.[47,48] The VA has initiated the development of clinical decision-making aids—including practice guidelines, clinical pathways, and algorithms—that can be designed to assist in the recognition and management of suicide risk.[49]

Inform the Public, Press, and Politicians

A better informed constituency would likely be more supportive of the VA's efforts and less critical of the inevitable adverse events. Statistics on the large number of suicide risk factors and at-risk patients could be described in the annual Secretary of Veterans Affairs report, along with some estimate of actual suicide rates that are currently not published or available. The VA's Committee on Care of Severely Chronically Mentally Ill Veterans reports directly to Congress and provides an opportunity to publicize the mental health needs of veterans, including the issue of suicide risk factors.[50] VA mental health administrators should also strengthen ties with veterans' organizations (such as the Veterans of Foreign Wars and others) to improve communication and dialogue as changes occur in the way services are delivered.

Implications for Mental Health Services Delivery

The results of this review indicate that suicide risk assessment is more complicated and challenging in the VA than in many other large health care systems. The large number of chronic suicide risk factors interact negatively with a variety of characteristics of the VA system that increase the difficulty of proper assessment and treatment planning for suicide-prone veterans.

Mental health leadership at the highest levels of the VA has made explicit its desire to see the system move away from its focus on inpatient treatment and to develop continuity of care models such as Primary Care Mental Health Teams. Local administrators at VA medical centers must rationally redesign their care delivery systems, work to educate staff and the veteran constituency, and monitor outcomes to improve the safety and quality of care.

Despite the challenges, the VA appears to be moving toward a more rational mental health care delivery system, one that could serve as a model for the integrated and innovative management of a population at high risk of suicide.

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