Suicide Prevention in a Deployed Military Unit


Objective: Military suicide and parasuicidal behaviors have been increasing over the last several years, with rates highest in the deployed environment. This article presents a deployment cycle-specific suicide prevention plan utilized during one U.S. Army division’s 15-month deployment to Iraq. Methods: Education, identification, and intervention programs were implemented at each phase of the deployment cycle based on the specific unit activities and predicted stressors. Results: During the deployment, there was an annual suicide rate of 16/100,000 within the trial cohort, compared to a theater rate of 24/100,000. Peaks in suicidal ideation and behaviors occurred during months two, six, and twelve of deployment. Conclusions: A deployment cycle prevention program may decrease rates of suicide in the combat environment. This program may serve as a model for other suicide prevention programs.

In 2004 suicide accounted for more than 1.4% of all fatalities in the United States (Centers for Disease Control and Prevention, 2008). Suicide was the second leading cause of death among 24-34 year olds and the third leading cause of death among 15-24 year olds (Centers for Disease Control and Prevention, 2008). For every completed suicide, there are twenty-five attempted suicides (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). Among high school students surveyed in 2006, 16.9% contemplated suicide and 8.4% made a suicide attempt (Eaton et al., 2006).

Prior to Operation Iraqi Freedom (OIF), the U.S. Army had lower rates of suicide than the general population. However, between 2003 and 2008 the Army suicide
attending rate rose in four of five years, with 2008 having the highest rate in 25 years (MHAT-V, 2008; MHAT-VI, 2009). In combat zones, Army personnel experienced rates rising to 24.0/100,000 soldiers in 2007 (MHAT-V, 2008).

At that time the Army’s suicide prevention program was defined in Army regulation 600-63. This regulation addresses two arms of suicide prevention, the formation of a Community Health Promotion Council (CHPC) and leader/soldier actions (United States Army, 2007). The CHPC is a group specific to the home installation and does not have an equivalent in units deployed to combat zones. Strategies for prevention focus on developing positive life coping skills and help-seeking behavior, while raising awareness. These strategies are presented through annual training sessions (U.S. Army Center for Health Promotion and Preventive Medicine, 2007).

The Army’s Mental Health Assessment Team, Fourth Report (MHAT-IV) concluded that the Army’s suicide prevention program was not optimal in the combat/deployed environment (MHAT-IV, 2006). MHAT-IV recommended development of plans focused on the specific phases of deployment and aimed at building psychological resilience. The Army has implemented deployment phase-specific resiliency training, but similar training had not been developed for suicide prevention. It has also been noted that during deployment, the most common stressors that soldiers face are home front problems, combat exposures, and peer-unit difficulties (Warner, Breithach et al., 2007a). Completed suicides in the Iraq Theater of Operations during 2007 were most commonly incited by a failed relationship or ongoing disciplinary action (MHAT-V, 2008). Analysis of the suicides concluded that training and interventions should focus on helping soldiers recognize not only the expected combat stressors, but also these high frequency non-combat-related issues.

Suicide risk is increased by the loss of social support; increased levels of aggression; and by greater impulsivity resulting from isolation, depression, and hopelessness (Fieldsend & Lowenstein, 1981; Mahon, Tobin, Cusack, Kelleher, & Malone, 2005; Maris, 1981; Ritchie, 2003; Rudd, 1990; Stander, Hilton, Kennedy, & Robbins, 2004). Within military populations, increased access to lethal means also increases risk (National Quality Management Program, 2007). In current deployed environments, soldiers are always armed and are removed from significant social support networks, including their families. During deployment, standardized and leader-endorsed procedures may have the capacity to improve prevention of suicides by military service members.

In the 1990s the U.S. Air Force responded to an alarming increase in suicide rates by mandating that suicide prevention become a communitywide responsibility rather than just a medical problem. A significant and sustained drop in suicide rates was seen (Knox, Litts, Talcott, Feig, & Caine, 2003; Knox, Conwell, & Caine, 2004; Staal, 2001). The Air Force initiative was felt to be successful due to unit leaders actively engaging and promoting it. Additionally, within military populations, early identification and intervention in suicide prevention programs are effective (Knox, Litts, Talcott, Feig, & Caine, 2003; Rozanov, Mokhovikov, & Stiliha, 2002; Staal, 2001). However, these prevention programs were enacted in peacetime situations and focused on decreasing barriers to receiving mental health care, recognizing early warning signs, and taking action after an event has occurred.

In light of these issues, in 2007 a U.S. Army Infantry Division implemented a suicide prevention program that included interventions integrated into each phase of the deployment cycle (pre-deployment, during the 15-month deployment, at return, and during reintegration). The plan included education, early detection, intervention, communication, command/leader emphasis, and treatment within the various phases of the deployment cycle for all unit members and their significant others.
InTerVenTIon PlAn

Pre-deployment Phase

Recognition and Response Training. At the platoon level (30-50 personnel) soldiers were trained, using the U.S. Army’s resiliency-based Battlemind Program, with instructional slides and discussion focused on recognition of risk factors, early warning signs, and promoting assistance-seeking behaviors (United States Army, 2009). Role playing, testimonials, and discussions established expectations for the deployment and potential deployment-specific stress events. With the use of the Spouse’s Battlemind Training Program, training also encouraged participation of family members (Figure 1). Specific sessions were also conducted for leaders on management of emergent situations and the importance of a command climate which limits barriers to seeking assistance and encourages soldiers to seek help.

Mental health asset’s (chaplains, medical care providers, and mental health personnel) training focused on recognition and early management of combat stress, Posttraumatic Stress Disorder, sleep problems, depression, and traumatic events. During field training exercises, these personnel conducted rehearsals of traumatic events to prepare themselves, their soldiers, and the leaders in how to respond to anxiety-provoking situations.

Early Identification. In 2006, U.S. Department of Defense issued mental health standards for deployment (Table 1) (Assistant Secretary of Defense, 2006). Within the study population, pre-deployment health assessment interviews were expanded to ensure compliance with these standards. Soldiers on psychotropic medications or receiving mental health care were assessed by a psychiatrist. In soldiers found fit to deploy, a combat zone treatment plan was developed which included oversight by the unit primary care physician and the unit mental health officer (clinical psychologist or social worker).

FIGURE 1. Overview of the US Army Resiliency Training Program

Throughout deployment, smaller size elements (squads and platoons of 10-50 personnel) conducted training with mental health assets at months 6-9 and 12-15. The Army training model was modified to focus on the key issues deployed soldiers encounter: home front stressors, failing relationships, disciplinary problems, combat, exposure to casualties, and ongoing peer-unit problems. It also focused on how to access resources available in the combat environment.

**Suicide Prevention Review Board and Suicide Risk Management Teams.** At the division level (20,000-25,000 personnel), the Commanding General conducted monthly Suicide Prevention Review Boards (SPRB) attended by the subordinate unit leaders and their support staff of chaplains, medical and mental health resources, attorneys, military police, and public affairs personnel. The Commanding General emphasized suicide risk factors, preventive measures, and lessons learned. Meetings reviewed suicides and para-suicidal behaviors, ongoing trends and initiatives, and key lessons learned from other units.

<table>
<thead>
<tr>
<th>Table 1: Key Points in Mental Health Deployment Limitation Guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limiting Condition</td>
</tr>
<tr>
<td>--------------------</td>
</tr>
<tr>
<td>Non-Deployable Diagnoses</td>
</tr>
<tr>
<td>Axis I Diagnoses</td>
</tr>
<tr>
<td>Medication Monitoring</td>
</tr>
<tr>
<td>Antipsychotic Medications</td>
</tr>
<tr>
<td>Medication Considerations</td>
</tr>
<tr>
<td>Psychotropic Medication</td>
</tr>
<tr>
<td>Central Command Modification #9 Changes to Medication Issues</td>
</tr>
</tbody>
</table>

**Note:** Assistant Secretary of Defense, 2006; Rosenthal, 2008.

**Deployment Phase**

At the brigade level (3,500-4,000 personnel), the suicide risk management team (SRMT) as outlined in Department of the Army Pamphlet 600-24, *Suicide Prevention and Psychological Autopsy*, were utilized. However, these teams are typically utilized at home station and had not previously been adapted for combat operations (United States Army, 1988). The deployment SRMT included representatives from command, mental health, medical, and chaplain personnel operating within each brigade. Unit members at increased risk, but not requiring evacuation, were tracked throughout the deployment by the SRMT. The team ensured soldiers remained engaged with mental health personnel and the unit’s non-medical support structure. SRMT meetings also provided commanders a forum to discuss suicide prevention, trends, and lessons learned.

**Unit Behavioral Health Needs Assessments.** The Unit Behavioral Health Needs Assessment (UBHNA) is a standardized tool to monitor unit-wide mental health issues which can be administered and analyzed by the unit’s mental health officer (Walter Reed Army Institute of Research, 2008). It assesses morale, cohesion, ongoing stressors, soldier
concerns, and the need for and barriers to mental health care. It provides commanders clear and objective findings to support recommendations for intervention. The availability of data from multiple units at varying stages of deployment enabled commanders to gauge their current status (MHAT-IV, 2006). All units were required to complete a UBHNA between 6-9 and 12-15 months of deployment.

Unit Behavioral Health Advocates. MHAT-I (2003) recommended a risk management program using mid-grade soldiers to facilitate peer identification and intervention of problems at the company level (150-200 personnel). The advocate program was developed based on prior programs from combat stress units and the DoD’s Sexual Assault Victim Advocate Program (Department of Defense, 2006, June 23). Battalion (800-1,000 soldiers) level advisors were mid-level non-commissioned officers and company level advisors were medics.

Advocates were provided training on communication, advocacy, referring soldiers for assistance, understanding barriers to care, behavioral health needs assessments, and psychological first aid. Additionally the majority of advocates were given training in Applied Suicide Intervention Skills Training (ASIST). Advocates educated and encouraged soldiers to overcome stigma and seek help, assisted in identifying “at risk” soldiers, and facilitated prevention efforts. Advocates did not provide treatment. This program was designed to be a continuous program, present through all phases of the deployment cycle.

Incident Response and Trend Monitoring. Units organized pre-planned responses to soldiers who contemplated or completed self-harm. Those who contemplated suicide were evaluated by chaplains or mental health personnel; those with attempts or gestures were evaluated and treated at the nearest medical facility. For completed suicides, support was provided to the unit by chaplains and mental health personnel.

The Division Psychiatrist conducted monthly reviews of soldiers evaluated for suicidal thoughts, gestures, or attempts, along with the inciting stressors. Mental health personnel completed a Department of Defense Suicide Event Report (DOD-SER) for any completed suicide or event of suicidal ideation/behavior that resulted in hospitalization or evacuation from theater (Department of Defense, 2008). A “standard of care” review was conducted for cases in which soldiers completing suicide were under mental health care (United States Army, 2004a). A formal investigation was performed for any completed suicide (United States Army, 2004b). These investigations evaluated whether proper processes and procedures were in place and ensured that lessons learned were disseminated to prevent similar future incidents.

Re-Deployment

Education. In preparation for return home, soldiers received several educational sessions. Chaplains provided suicide prevention and awareness training, with separate sessions for junior soldiers and leaders. Leaders’ training focused on establishing an environment that encourages soldiers to seek help. Mental health teams instructed leaders on resiliency, and medical providers were trained to recognize and manage post-deployment problems, including depression, anxiety, anger, substance abuse, and sleep disturbances. All soldiers received the post-deployment component of the resiliency-based Battlemind training, focused on helping soldiers transition from combat to home (Figure 1) (United States Army, 2009).

Home installations conducted classes and workshops on reuniting families and spouse sessions to enhance spouse support during the transition process of the soldier’s returning home (Figure 1). Sessions focused on helping spouses recognize and address the challenges faced during reintegration and knowing when to encourage their spouses
to seek assistance. Educational pamphlets, flyers, posters, and advertisements outlined common reintegration issues and how to access support resources.

*Post Deployment Health Assessment and Risk Stratification.* The Post Deployment Health Assessment (PDHA) screening was conducted as soldiers prepared to return from theater and included both a survey and a face-to-face interview with a primary care provider (Department of Defense, 2006, Aug. 11). This screen was used as a risk assessment tool to provide early identification of problems and reduce negative post-deployment behaviors (Warner, Breitbach, Appenzeller, Yates, Grieger, & Webster, 2007b). Soldiers identified with ongoing mental health issues were evaluated by a mental health professional at the time of screening. Implementation of this system allowed unit medical providers to identify which soldiers should be monitored closely and prioritize the use of mental health resources.

**Reintegration**

After redeployment, soldiers underwent a reintegration and decompression program. This program, consisting of ten half-business days, allowed soldiers to complete the required redeployment tasks, prepare for reuniting with families, and ensure post-deployment medical issues were addressed. Upon arrival at home installations, soldiers who screened as high risk on the PDHA were discreetly evaluated by a mental health provider prior to the welcome home ceremony to determine potential need for emergent care. On Day One of reintegration, post-deployment resiliency and suicide prevention training were presented and information on available resources was distributed. On Day Four, a PDHA recheck was performed, allowing soldiers to report any previously unendorsed issues. Mental health care was available on-site for any soldier newly screening positive or requesting services. Command observation and peer interaction throughout the ten-day period provided an opportunity to potentially identify concerning behaviors, and family activities were included so that leaders could observe the current relationship dynamics.
OUTCOMES

The Multi-National Division-Center (MND-C) was established in March 2007 in support of the surge of forces into Iraq. All members of the unit completed each aspect of the prevention plan outlined above with the exception of the pre-deployment screening program, which was not performed by three brigades who were attached from other divisions.

During the 15 month deployment, the division’s mental health services (2 psychiatrists, 2 psychologists, 4 licensed clinical social workers) provided 40,283 clinical and preventive contacts and diagnosed 10,261 combat stress reactions. The top three causes of combat operational stress reactions (accounting for nearly 75% of all reactions) were home front problems, combat exposure, and peer/unit issues. Figure 2 shows the impact of these issues by month of deployment. The majority of these soldiers remained in theater and returned to full duty, with only 62 soldiers requiring evacuation for mental health problems.

During this deployment, the division had five completed suicides, a rate of 16.0/100,000 soldiers. During that time, the theater rate was 24.0/100,000 service members and the U.S. Army rate was 19.2/100,000 soldiers (MHAT-V, 2008). Due to the low rates, tests of significance were not conducted. All five suicides were junior enlisted (E3-E4), on their first deployment, and all used their assigned military weapon. Four of the five were male. Three of the cases involved failing relationships; the other two involved pending disciplinary or legal action. Only one soldier had previously seen a mental health professional or a chaplain, and that meeting had occurred more than one month prior to the event. Two of the five suicides occurred in soldiers who had not received pre-deployment screening. Three of the five suicides occurred in soldiers who had been deployed for more than twelve months.

Figure 3 outlines the number of soldiers evaluated for suicidal thoughts or behaviors by calendar month. Although a notable rise was seen in soldiers seeking assistance for suicidal ideation throughout the deployment, there was no similar increase in completed suicides or para-suicidal behaviors. Figure 4 shows the number of soldiers seeking assistance for suicidal thoughts or behaviors reported by the month of their deployment. In

FIGURE 3. Suicide Thoughts and Behaviors in a Deployed Combat Arms Division (Mar 07 – May 08)
this chart, thoughts of suicide peak at three periods (two, six, and twelve months), with suicide gestures showing similar trends.

DISCUSSION

This program, the key tenets of which are outlined in Figure 5, is based on a modification of tenets outlined in Army Regulation 600-63, Suicide Prevention and Surveillance, specifically tailored to fit the needs of the individual unit throughout the phases of deployment. The program was associated with a unit suicide rate that was notably lower than the theater rate during the same time period. This plan may also have been associated with increased willingness of soldiers to seek help for suicidal thoughts. The following is a discussion of the specifics of these modifications and how they proved useful in prevention efforts.

Command/Leader Involvement

Commander involvement and emphasis in both the division-level SPRB and the brigade-level Suicide Risk Management Teams encouraged junior officer and NCO leadership to monitor, promote, and emphasize suicide prevention. Leader support to mental health programs set an expectation of help-seeking behavior in response to mental health issues and ensured that all support parties acted in a unified manner. This leadership response is perhaps one of the most significant components of the intervention outcomes.

Early Identification and Intervention

Intervention and early identification of mental health issues throughout the deployment cycle can help leaders focus on supporting their soldiers. Armed with the information of who is at risk and who needs closer support, units can more readily address matters that contribute to a soldier’s mental health problems and make adjustments which better accommodate the soldier and the mission.

The unit behavioral health advocate initiative provided a peer gatekeeper program. This advocate served as a liaison to the command and support services, providing an early warning system on issues, attitudes, and behaviors within the unit which may increase barriers to seeking help. Further, they
ensured distribution of lessons learned from prior events even after inevitable transitions of organizational leadership. The effectiveness of such programs has been relatively unproven, and few studies have looked at their impact in military or veteran populations (Matthieu, Cross, Batres, Flora, & Knox, 2008; Stuart, Waalen, & Haelstromm, 2003; Wyman et al., 2008). A formal validation study of this program is warranted for potential standardization and distribution throughout the military.

The suicide risk management teams provided active monitoring to ensure soldiers within the system were not lost to follow-up; they also provided a multidisciplinary support team for the commanders, ensuring coordinated effort among services. Unit behavioral health needs assessments provide objective feedback to commanders and a snapshot of the current level of stress. These programs helped coordinate efforts throughout the deployment cycle, and they provided data to track changes in the unit over time. This capability allowed units to most effectively use their support resources to address active issues and meet current de-

<table>
<thead>
<tr>
<th>Pre-deployment Phase</th>
<th>Deployment Phase (15 months)</th>
<th>Re-deployment Phase</th>
<th>Reintegration (10,1/2 Business Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education</strong></td>
<td><strong>Education</strong></td>
<td><strong>Education</strong></td>
<td><strong>Education</strong></td>
</tr>
<tr>
<td>Resiliency Training for Soldiers and Families</td>
<td>Resiliency and Suicide Prevention Education on Deployment Related Issues</td>
<td>Resiliency Training for Soldiers and Leaders</td>
<td>Resiliency Training for Soldiers and Family Members</td>
</tr>
<tr>
<td>Suicide Prevention Training</td>
<td>Early Identification</td>
<td>Suicide Prevention Training</td>
<td>Early Identification</td>
</tr>
<tr>
<td>Early Identification</td>
<td>Pre-Deployment Mental Health Clearance Evaluations</td>
<td>Early Identification</td>
<td>Post-Deployment Mental Health Assessment</td>
</tr>
<tr>
<td>Intervention</td>
<td>Case Management of Soldiers Identified through Pre-Deployment process and deployed</td>
<td>Intervention</td>
<td>Unit Behavioral Health Advocates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluation and Risk Stratification of Soldiers Screening Positive on PDHA</td>
<td>Evaluation and Risk Stratification of Soldiers Screening Positive on PDHA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incident Response and Trend Monitoring</td>
<td>Structured reintegration program assisting with transitioning home from combat</td>
</tr>
</tbody>
</table>

**FIGURE 5. Suicide Prevention Program Applied Across the Deployment Cycle**
Formalized screening programs in the pre-deployment and redeployment process allow for coordination and continuity of care. A soldier identified during the redeployment screening as having problems with depression and facing return to a failed marriage, for example, can be monitored by the unit and provided outreach by the chaplains and mental health providers. Coordinated intervention helps not only the soldier in need, but sends a message to other soldiers that units intend to care for, not punish, those with problems. The effectiveness of this process is limited by the soldiers’ honesty of responses and concerns that positive responses may negatively impact their career or how others perceive them (Warner, Appenzeller, & Grieger, 2008; Warner, Appenzeller, Mullen, Warner, & Grieger, 2008). Continued efforts are needed to decrease the stigma associated with seeking assistance, and further studies are required to determine the impact of confidentiality.

**Adapting Programs to the Deployed Environment**

Training must be relevant, realistic, and useful to team members or it will not be internalized and embraced. The training should be based on the current combat environment, and soldiers with prior experiences should be encouraged to share their perspectives. Scenario-based training, similar to that done for trauma-related medical training, is one approach. The U.S. Army has developed a program called Beyond the Front (U.S. Army Training and Doctrine Command, 2009). This interactive, video-based vignette training program provides the initial steps towards this goal, but scenarios should be developed for each phase of the deployment cycle and updated frequently to reflect changing conditions.

The Suicide Prevention Review Board was also adapted for use during deployment. In combat units, the responsibility of suicide prevention generally falls to the chaplain or unit behavioral health officer. By developing a deployed review board, units were able to maintain an ongoing program throughout all stages of the deployment cycle, using services available at the time (United States Army, 1988).

Not all programs can be easily translated between garrison and deployed environments. There is generally one Suicide Risk Management Team (SRMT) per installation; however, relying on one SRMT for an entire division in a dispersed combat environment is not feasible. During this deployment, the population studied was dispersed over an area the size of the state of West Virginia, making it impossible to attain adequate monitoring with one team. The SRMTs were adapted to smaller units, allowing for better visibility of soldiers, the local environment, and unit-specific issues. This structure allowed closer coordination between resources falling under separate chains of command and allowed the local commander to maintain oversight of his unit’s program.

**Understanding Periods of Risk**

Figure 4 shows three distinct time periods during which soldiers endorsed increased rates of suicidal thoughts and parasuicidal behaviors. The first peak may have been in response to separation from the support structures at home, including family and friends. Additionally, this is a typical time frame for the initial failure of relationships.

Consistent with previous studies, mental health issues again increased significantly after six months in a combat environment (MHAT-V, 2008; MHAT-IV, 2006; Warner et al., 2007a). This is a common time for soldiers to utilize their mid-tour leave when they are permitted to spend two weeks with their family back home. This break provides much needed rest and relaxation and an opportunity to spend time with families. It can also be a time of increased stress, as soldiers
again leave their support networks, return to the combat zone, and experience increased feelings of isolation. Initial departure to the combat zone occurs in units, allowing soldiers to have a natural support group; in contrast, the mid-tour leave is an individual process without such natural supports. This is an area for potential intervention and further study to determine effective support strategies.

Near the end of deployment, soldiers have increased focus on home-front stressors, concerns about the return home, and the cumulative effects of 12 or more months of combat exposure. The later peak in suicidal thoughts seen in this sample may also represent an increase in the stress soldiers face during a deployment extended to fifteen months. After one full year, soldiers begin missing two consecutive anniversaries, birthdays, holidays, or other significant events. It is unclear whether the increased number of completed suicides in the late months of deployment were secondary to the stress of deploying beyond twelve months or associated with nearing return from prolonged deployment. Further evaluation is required to determine the optimal timing of future interventions.

The mid-deployment interventions were conducted between 6-9 months of deployment, based on previous reports that all mental health problems and home-front stressors increase after the sixth month of deployment (MHAT-IV, 2006; Warner et al., 2007a). Additional interventions were utilized after the twelfth month due to a lack of historical data and concern for increasing negative behaviors in some units. The findings presented in Figure 4 support the use of such interventions at twelve months of deployment.

Active Monitoring

A key component to prevention is an active monitoring program. This includes monitoring unit level issues, trends across time, and individual soldiers with identified needs. The goal at all levels is to develop a proactive response to changing conditions in order to prevent negative outcomes. This is accomplished through the multiple means discussed above and incorporates lessons learned; real-time trend analysis; and subjective and objective data, including the SRMT, UBHNAs, and commander’s observations.

Challenges to Implementation

As with any new program, there were significant challenges to implementation. Specific challenges have been discussed within each section above; however, there were some overall challenges that stretched across the entire program, including geographic dispersion; commander, unit and soldier buy-in; and cost.

Since the division occupied a geographic area approximately the size of West Virginia, there were significant issues in command and control of assets. Additionally, it was difficult for the limited number of behavioral health staff to physically get to each location where soldiers were located. This was compounded by the inherent dangers of travelling in a combat zone. This dispersion also led to challenges in tracking patient care across multiple units and significant distances.

Video-teleconferencing capability was used not only for the SPRB, but for consultative services. Secure e-mail and phones were extensively used. Non-psychiatric medical providers and chaplains were trained and used as provider extenders. The use of rehearsed policies and procedures allowed both organic behavioral health personnel and extenders to function in critical situations with limited oversight. Despite the danger, battlefield circulation was the primary means of ensuring direct coordination and provision of care at the unit level. This was predominantly performed in conjunction with senior officer visits to unit locations.
The senior officer visits not only allowed behavioral health personnel to get to remote locations, it ensured that units, junior commanders, and soldiers understood that suicide prevention and behavioral health was a senior commander priority. Senior commander involvement and support was the most critical component in gaining unit and junior commander buy-in. An additional method of creating buy-in included using formats familiar to both commanders and soldiers. The unit advocate program was based on the well-known and accepted sexual assault victim advocate program, and the SPRB was an extension of an activity done prior to deployment. Another method was to perform the functions for them, as was done with UBHNAs. The surveys were brought to the unit and, after completion, the division behavioral health and medical staff input the data and performed the analysis. After completion, the commander was presented with data he could use to improve the care and safety of his soldiers. After the commanders were able to evaluate the value of the process, they all ensured that unit behavioral health personnel were trained to do follow-up evaluations and ongoing surveillance.

Time is one of a unit and commander's most precious resources. The cost of the program was primarily the time involved. In order to create buy-in and minimize the impact of this cost, it was paramount to ensure that commanders receive maximal actionable information. Additionally, units had to balance mission requirements with the time requirements for completing program activities. No additional personnel were provided to run the program. All behavioral health and extender personnel were taken from organic unit resources. These personnel had to balance their other duties with the additional requirements of the program.

All of the resources utilized in the program were owned by the unit, and other than standard supplies there were no additional financial requirements. Particularly in the deployed environment, it is difficult to place a financial cost figure on the time and personnel requirements. This makes comparisons or projections to civilian organizations difficult, but considerations would predominantly be the additional cost of provider time and support personnel. Time requirements would involve senior staff oversight and employee participation time and lost productivity.

**Applicability to Civilian Community-Based Prevention Programs**

Identification of the successful elements of this comprehensive intervention plan allows for generalizability of prevention efforts to the civilian community. Key components found in this deployment suicide prevention program are extricated from community-based psychiatry principles. First, the successful primary community-based psychiatry practice of establishing a patient treatment and tracking system via a multi-disciplinary team of providers was employed, incorporating the talents of psychiatry, psychology, social work, and primary care to effectively manage the many behavioral, social, and physical needs of the patient. Concurrently, a system was effectively devised to identify high risk individuals and to establish an effective case management system to track these individuals. Second, developing and implementing effective needs assessment tools, assessing and addressing barriers to care, and behavioral health stigma were key components of the prevention program. This fits well with the current Patient Medical Home Model of primary care (Rosenthal, 2008).

Enlisting social support of family and friends for early identification and later intervention purposes was incorporated into the program. Additionally, the community psychiatry principle of training and using peer advocates was also incorporated with success. This approach has been especially effective in implementation with adolescent populations. Additionally, psychoeducational materials were dispersed through various modalities and were geared at predicting
likely stressors and educating target populations on critical interest areas.

The emphasis on lessons learned after a completed suicide is paramount to any community-based prevention program. Professionals should not be hesitant to conduct a thorough, systemic case review of all completed suicides and should create a standard review process for conducting such reviews. This should include an in-depth review of factors contributing to patient motivation for suicide, the professional’s pre- and post-event response, the community response, and the general systemic effects of the event. Lessons learned should then be actively incorporated into future action-oriented responses.

Additionally, this intervention program’s inclusion of a resiliency focused education approach warrants further investigation into the clinical significance of including this conceptual framework into an intervention-based program. Anecdotal evidence from this program’s overall success rate suggests that this may be beneficial in prevention efforts.

**Limitations**

With this multi-faceted intervention plan, it is not possible to assess the relative contributions of each component; this is a matter for future controlled study. The outcomes are based on intervention with one unit. While the intervention demonstrated lower rates of suicide compared to all deployed forces, there was no controlled comparison with units undergoing similar stress, but alternative intervention programs.

A limitation with respect to the direct application of military prevention efforts to civilian-based programs is the challenge of community-based models typically being without the benefit of the multiple levels of accountability found in the military system. The military’s tiered leadership and battle buddy system offers frequent “eyes on” its service members. Close living quarters and close general occupational contact, with long work days and extended deployments, result in occupational and social relationships typically forming more quickly and intensely in the military communities. This may offer improved opportunities for early identification of high risk persons as opposed to civilian communities/personnel. However, an area for further study may be placement of behavioral health personnel and programs within the occupational medicine programs of large corporations.

**CONCLUSION**

As the U.S. Army continues to refine policy pertaining to the deployment cycle support process, strong consideration should be given to standardizing deployed suicide prevention programs to enhance effectiveness during all phases of the deployment cycle. The multi-faceted approach of this plan may provide a model for further study of interventions to reduce rates of suicide among soldiers deployed to war. Additionally, this program, or portions thereof, may be applicable to the wellness programs of large corporations, and it fits well into the patient-centered medical home framework.
REFERENCES


CENTCOM MOD 9.


