

# Web-based Post-traumatic Stress Disorder Education for Military Family Members

**PUBLICATION:** *Military Medicine* (2012); 177(3), 284-290.

**PUBLICATION TYPE:** Peer-Reviewed Journal

**KEYWORDS:** Veterans, Post-traumatic stress disorder (PTSD), military families, focus groups, web-based education

### RESEARCH HIGHLIGHTS:

- U.S. service members deployed to Afghanistan and Iraq have reported high incidences of PTSD, many with a delayed onset of symptoms. One study found PTSD and depression rates of 3-4% initially in service members at Walter Reed Army Medical Center, however, after three to six months, 10% of service members had a new diagnosis of PTSD or depression.
- Interventions for military family members have been recommended as a way to identify signs of distress in service members and to assist in preventing stress-induced impairment. In this study, researchers introduced an educational website to assess and improve knowledge of PTSD, and to engage family members in positive actions to assist service members struggling with PTSD.
- After using the website, military family members reported a significant increase in PTSD-specific knowledge for nearly every question offered. Most family members also reported taking actions to help service members in their family shortly after using the website, and the overwhelming majority who did so thought their actions were beneficial. Web-based content can be a valuable tool for addressing psychological health after deployment for both service members and military families.

**AUTHORS:** Col. Michael J. Roy, M.D., M.P.H.; Patricia Taylor, M.B.A.; Will Runge; Evonne Grigsby; Matthew Woolley, MSCCS; Tonya Torgeson

### ABSTRACT:

**Objective:** Since post-traumatic stress disorder (PTSD) is common after military deployment and affects both military service members and their families, we sought to both improve PTSD-related knowledge of military family members and to foster actions to help service members with their symptoms.

**Methods:** Focus groups were conducted with military family members and their feedback was incorporated into an educational website to improve family members' knowledge of PTSD. We pilot-tested the site and a 25-item questionnaire, then used it to assess the knowledge of 497 family members before and after their use of the website.

**Results:** Use of this educational website improved military family members' PTSD-related knowledge on a 25-item test, with an increase from a mean 13.9 correct responses beforehand to 18.7 after website use ( $p < 0.001$ ; effect size 1.2). In addition, 217 family members returned to the site 10 days after their initial visit; 57% had taken actions such as discussing the service member's symptoms with them or persuading them to get medical attention, and 82 to 95% of them believed their actions to be beneficial.

**Conclusion:** A web-based intervention can both improve PTSD-related knowledge and foster behavioral changes in military family members."

## Implications

### FOR PRACTICE

The use of the website created by researchers in this study improved military families' knowledge of PTSD, as well as significant and relevant health concerns for both service members and military family members. In addition to improving knowledge of the condition, participants were moved to actively help the service members in their families, and reported thinking that the actions they took were beneficial. An educational website is a feasible tool for educating and engaging military families in service members' psychological health concerns, as shown by the results of this study; the Department of Veterans Affairs administrators and community organizations serving veterans should consider the use of web-based tools in future initiatives for veterans' health. Concerns about stigma, according to previous research, have been cited as a factor preventing military service members from obtaining help, especially for mental health problems. Web-based content can serve as a valuable method of providing care and information to military service members without the risk of being stigmatized. In addition, military families can become more informed and engaged in addressing these issues, providing a better support system for post-deployment recovery.

### FOR POLICY

Family members in this study provided feedback about the psychological impact of deployment on the military service members in their families that is a cause for significant concern. This feedback included reports of high rates of sleep disturbances, alcohol use, irritability, withdrawal and other behaviors increasing marital strife. These behaviors could potentially lead to separation, divorce and negatively impact military service members' health. For example, sleep deprivation could increase motor vehicle accidents and result in serious injury or death. Family members in this study were also less likely to state that they thought service members in their families had an alcohol, substance abuse or depression diagnosis, while they were more likely to state that a healthcare provider had diagnosed the service member with alcohol abuse, substance abuse or depression. This pattern may represent family members' disinclination to stigmatize service members in their families by only acknowledging a diagnosis when it could be attributed to a third person. Policy makers should focus on creating and maintaining structural and financial support for programs that provide military service members and families tools to manage post-deployment issues, including health and familial relationships, and social reintegration. Policies put in place to provide service members with veteran-specific therapy groups may be especially beneficial in providing a support system to address issues like sleep deprivation and family stress with others who have had these same experiences.

### FOR FUTURE RESEARCH

Although the website created by researchers seemed to positively impact military service members and their families in this study, web-based studies introduce issues with validity and reliability of results. Future studies should address these concerns by creating safeguards to prevent fraud, as well as insuring that information provided by participants remains confidential. Future studies should also focus on providing an increased range of services for military families using the educational website; for example, role playing with online avatars representing military service members with PTSD in a variety of situations. These avatars could be used to initiate discussions between family and service members that could encourage both to be more open and engaged in discussions of health and wellness post deployment. Future researchers could also consider a stronger research design, such as including a comparison between the web-based intervention population and a control population that measures healthcare utilization and service member outcomes after the intervention. While fear of stigma has been shown to dramatically reduce healthcare utilization by military service members, interventions targeting family members and those using web-based tools can be beneficial. Future studies should further investigate using the internet to engage and educate family members in assisting their returning military service members. Researchers should also focus on the ways in which these interventions influence rates of adverse family outcomes such as divorce and separation among military families.

### AUTHOR INFORMATION

**Col. Michael J. Roy, M.D., M.P.H.**

U.S. Marine Corps  
Uniformed Services University  
Department of Medicine  
mroy@usuhs.mil

**Patricia Taylor, M.B.A.**

Uniformed Services University

**Will Runge**

Uniformed Services University

**Evonne Grigsby**

DefenseWeb Technologies

**Matthew Woolley, MSCCS**

DefenseWeb Technologies

**Tonya Torgeson**

DefenseWeb Technologies