

SupportNet:

Helping Those Who Help Our Military



Brief Summary: SupportNet was a project in the Trauma, Health, & Hazards Center (THHC) at University of Colorado Colorado Springs (UCCS) designed to assess the level of secondary trauma and burnout among military behavioral health providers and to provide a pilot support system for the providers. It was funded by a 4-year grant through the US Army Medical Research and Materiel Command, Telemedicine & Advanced Technology Research Center (TATRC; Award No. W81XWH-11-2-0153). There were 2 phases to this project. The first phase was a longitudinal study of behavioral health providers both on- and off-post. The phase 1 results suggest that approximately 20% to 25% of providers are struggling with symptoms of secondary traumatic stress (STS) and burnout. A comprehensive selfcare goal setting web-support system utilizing a social media based platform was designed to reduce burnout in military behavioral health clinicians. The web-based support system was based on social cognitive theory focused on personal empowerment and social support enhancement. This was coupled with peer coaching by a behavioral health clinician to maximize the utility of the website. The following report provides a review of the most critical findings from our project. We hope the findings are useful for future planning in behavioral health divisions to help reduce the negative personal and organizational effects of STS and burnout. We believe this is a first step in developing comprehensive programming for these issues to support our teams of military behavioral health providers working with active and retired military personnel struggling with the after effects of war.

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The Problem: Secondary Trauma and Burnout in Military Behavioral Health Providers

A deep-seeded military value is to never leave a comrade behind, nor forget the sacrifices of a service member. It is just as important, though, to not forget those who care for soldiers, marines, airmen, and sailors; these caregivers help "bring home" service members who have suffered in battle, while experiencing risks of their own.

The military behavioral health provider work demand. Over 2 million troops have been deployed in Iraq and Afghanistan. Approximately, 31,949 and 20,023 have been wounded in action in OIF and OEF respectively. As of October 4, 2010, the Department of Defense estimated 4,408 soldiers



died in Iraq and 1,304 in Afghanistan (Military Casualty Report; SAID, DOD, 2010). Sixty-six fatalities and 295 wounded in action have been reported for Operation New Dawn (2010-2011). According to these recent statistics, over 90 percent of soldiers who were wounded in action to date survived their injuries, a rate that is significantly higher than any previous war (Gawande, 2004). As a result we have seen a

dramatic increase in the number of number of Veterans coping with physical disabilities. Traumatic brain injuries (TBI) are the hallmark injury from these wars due to improvised explosive devices that result in severe blast injuries. Not surprising, these types of wounds also carry a heavy emotional cost as well with high incidence of post-traumatic stress disorder (PTSD) as well as other traumatic psychological difficulties (e.g., substance abuse, depression, anxiety).

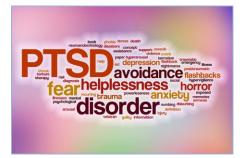
The Armed Forces Health Surveillance Center (AFHSC, 2014) reported that as of 2014, over 300,000 service members had been diagnosed with some form of TBI. Although the majority of these injuries are "mild" (approximately 247,000), mild TBI is nevertheless associated with a range of psychological difficulties. Further, it is difficult to determine whether these symptoms (such as cognitive difficulties, mood changes, and impulsivity) stem from TBI, post-traumatic stress



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disorder (PTSD), or both. This confluence of psychological and physical challenges exacerbate the heavy demand that military behavioral health providers experience.

Estimates of PTSD prevalence among troops deployed to Iraq and Afghanistan vary considerably, likely due to methodological and measurement differences (Ramchand et al., 2010). Sundin et al. (2010) recently conducted a comprehensive review of prevalence studies published from 2004-2008, each of which used large, non-treatment-seeking samples (N > 300). These authors found rates of PTSD ranging



from 10%-17% in studies with samples of line infantry units, and 2.1%-11.6% in random-population-based studies. PTSD prevalence among treatment-seeking samples appears to be considerably higher; studies using anonymous self-report measures report rates ranging from 12% (Erbes, Westermeyer, Engdahl & Johnsen, 2007) to as high as 37.8% (Jakupack, Luterek,

Hunt, Conybeare, & McFall, 2008). Further, using data from the Veteran's Affairs OIF/OEF roster (which included 389,328 Iraq and Afghanistan Veterans who were first-time users of VA healthcare between 2002 and 2008), Seal et al. (2009) reported 21.8% had received a diagnosis of PTSD. Clearly, PTSD, along with other primary behavioral health challenges such as Major Depressive Disorder, Bipolar Disorder, General Anxiety Disorder, Substance Abuse Disorders, etc., generate a high demand for behavioral health treatment through the DOD and the VA that is unprecedented. In sum, both the numerical demands on the behavioral health system to care for these individuals, and the complexity of these demands, are beyond anything we have seen previously.

The military behavioral health provider career consequence. Behavioral health providers working with combat veterans are at risk for developing secondary traumatic stress (STS) and burnout. Secondary exposure to trauma is a widespread phenomenon referring to the different types of indirect exposure to traumatic material, such as contacts with people who have experienced traumatic events, exposure to graphic trauma content (e.g., reported by the survivor), exposure to people's cruelty to one

another, and observation of and participation in traumatic reenactments (Pearlman & Saakvitne, 1995). Indirect exposure may be an inherent characteristic for behavioral health providers, health care personnel, and social workers who provide clinical services to military combat veterans (Elwood, Mott, Lohr, & Galovsky, 2011). Research suggests indirect



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exposure is predictive of higher levels of distress (Pearlman & Maclan, 1995), job burnout (Ballenger-Browning et al., 2011), compassion fatigue (Figley, 2002), and STS (Elwood et al., 2011).

We define STS as reactions resembling post-traumatic stress, such as intrusive re-experiencing of the traumatic material, avoidance of trauma triggers and emotions, and increased arousal, all resulting from indirect exposure to trauma. Recently, the American Psychiatric Association acknowledged this similarity and modified the diagnostic criteria for posttraumatic stress disorder. In the DSM-IV TR (American Psychiatric Association, 2000), direct exposure to trauma was required, but in



the DSM-5 (American Psychiatric Association, 2013), indirect exposure is now included under some circumstances, such as the indirect exposure experienced by behavioral health providers. With this change, it is now possible to diagnose some behavioral health providers, who are experiencing STS, with PTSD. STS prevalence rates differ across occupation groups; for example, criteria for a PTSD-like diagnosis of STS were met by

15.2% of social workers (Bride, 2007), 16.3% of oncology staff (Quinal, Harford, & Rutledge, 2009), 19% of substance abuse counselors (Bride, Hatcher, & Humble, 2009), 20.78% of providers treating family or sexual violence (Choi, 2011a), 32.8% of emergency nurses (Dominguez-Gomez & Rutledge, 2009), 34% of child protective services workers (Bride, Jones, & Macmaster, 2007), and 39% of juvenile justice education workers (Smith Hatcher, Bride, Oh, Moultrie King, & Franklin Catrett, 2011). Craig and Sprang

(2010) found 6% of a national representative sample of clinical psychologists and clinical social workers reported high levels of compassion fatigue and 12% reported elevated levels of job burnout. Before our work, there was no estimation of prevalence of STS or burnout among behavioral health specialists providing treatment for military and veteran patients. STS and job burnout can substantially impinge on



behavioral health providers' clinical effectiveness, increase turnover, elevate health care costs, and reduce overall morale. The military's commitment to military force health protection and overall warrior readiness requires these issues be addressed.

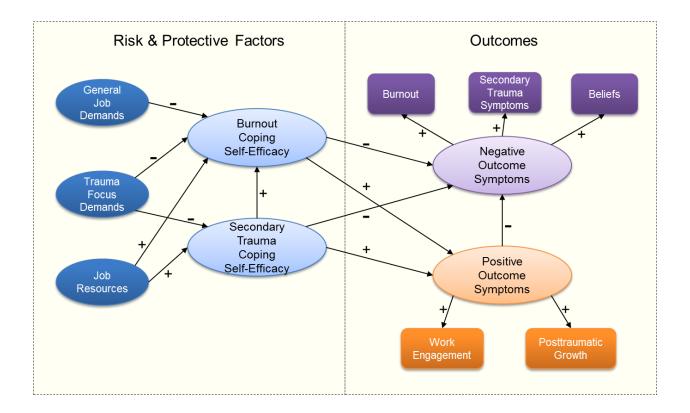
The SupportNet Response

Our project, SupportNet, was designed to identify and address these caregiver risks to military behavioral health providers. This research, a \$2.4M grant funded through *Telemedicine and Advanced Technology Research Center* (TATRC; Award No. W81XWH-11-2-0153), focused on STS and burnout. It included an extensive theoretically driven research effort to understand STS and burnout within this population as well as an innovative, evidence-based approach leveraging technology to help providers.



- There were two phases for this project:
 - Theoretically driven prevalence evaluation: longitudinal study that identified the rates of secondary trauma and burnout.
 - Intervention: Development of sophisticated social media based website that provided critical resources for providers, self-care goal setting, and relational support to enhance empowerment. Detailed peer coaching model to compliment web-support system.

Our Model: Demands-Resources Guided Through Self-Regulation



For our studies we utilized a modified demands and resource model for understanding burnout, STS and wellness (Demerouti & Bakker, 2011) in military behavioral health providers. We included a self-regulation approach using social cognitive theory (SCT) as a guiding theory to integrate the demands and resources within the model (see Figure 1). Job demands refer to those aspects of the job that require effort or skills and therefore lead to some physiological and psychological costs. Job resources relate to components of the job that are helpful in (a) achieving work-related goals, (b) reducing job demands and costs associated with these demands, and (c) stimulating personal development (Demerouti & Bakker, 2011). Through health impairment and motivational processes, job demands and

affect job burnout, STS, and ultimately work engagement, work satisfaction, and health/wellbeing. The JD-R model shows that from organizational and individual perspectives it is

resources directly, or in interaction with each other,

The Job Demands-Resources (JD-R) model is currently the most influential theoretical approach to understand job burnout. important to know what factors lead to a negative outcome (e.g., job burnout and STS) as well as positive outcomes (e.g., work engagement, job satisfaction, wellbeing).

The self-regulation approach using social cognitive theory (SCT) suggests that a demand becomes stressful when there is a lack of adequate resources to deal with this demand (Hobfoll, 1989, Lazarus & Folkman, 1984; Schaufeli, Taris, & Van Rhenen, 2008) and human beings utilize self-regulation

as a way to manage this imbalance. In the context of a model of selfregulation based on the demandresource balance, self-efficacy beliefs are pivotal to successful or unsuccessful coping. Our model also views social/environmental resources

Social cognitive theory suggests that interactive and dynamic processes between environmental conditions (e.g., social support, workload) and individual factors (e.g., selfefficacy, trauma exposure), can more comprehensively explain the relationship between demands-resources and related outcomes (e.g., burnout).

specifically social support, as a key factor that combines with self-efficacy to enhance or impede successful coping. Based on this model we designed a longitudinal investigation of behavioral health providers that would provide the following information.

- 1. What is the prevalence of STS and burnout in these providers?
- 2. What key factors predict negative and positive outcomes over time?
- 3. What is the inter-relationship between STS and burnout (i.e., which comes first)?

Prevalence Results: Secondary Traumatic Stress

This study was part of the ongoing SupportNet Project designed to evaluate indirect exposure to trauma, work-related demands and resources, and their impact on job burnout, work engagement, and STS in military mental health providers. Data were collected by means of an online survey. An e-mail with information about the SupportNet study and a link to the survey was sent to on-post and off-post behavioral health providers working with military patients. The off-post providers (i.e., located in the civilian community) received an invitation to the study through an online newsletter sent by TriWest Healthcare Alliance, an organization that manages health benefits for military patients and their families. The on-post providers (i.e., working within military installations) were contacted by e-mail sent by the director of the Department of Behavioral Health at Evans Army Community Hospital at Fort Carson, CO and by the Psychology Consultant to the U.S. Army Surgeon General¹. Thus, our sample included providers from across the globe.

Demographics of our participants:

- Out of the 339 individuals who initially consented to the study, 224 (66%) met the inclusion criteria (i.e., working at least one year as a clinical psychologist, counselor, or social worker; providing services for a military population; and being indirectly exposed to trauma through work with patients) and completed the survey.
- The average age was just under 50 years old (SD = 13.04) and the average length of work experience was slightly over 16 (SD = 10.42) years.
- The participants were mostly women (67%), with doctorate (54%) or master's degrees (46%), working fulltime (78%) or part-time (22%) as clinical psychologists (45%), counselors (31%) or social workers (23%).
- A little more than half of the sample was serving on-post (57%) and the rest as off-post (43%) behavioral health providers.
- Interestingly, we had just about an equal split between those who did and those who did not have any military experience (44% and 56%, respectively).
- Importantly, about 20% had deployed to a combat zone at least once.

¹ We would like to offer special thanks to several military partners who were instrumental in our success: Alan L. Peterson, Ph.D. Bret A. Moore, Psy.D., COL Crow, Psy.D., and COL Earles, Psy.D.

 The providers reported utilizing a mixture of different therapeutic approaches with most reporting Cognitive Behavioral Therapy (90%), followed by Cognitive Processing Therapy (42%), Prolonged Exposure (30%) and Eye Movement Desensitization and Reprocessing (29%).

Table 1 depicts the different percentages of STS symptoms that were reported for each cluster. Over half of the sample reported experiencing intrusions or re-experiencing related to their indirect exposure. Just over one-third reported meeting the criteria for hyper-arousal (2 or more of the symptoms). Importantly just under 20% met all of the criteria for a diagnosis of PTSD.

Table 1: Secondary Traumatic Stress Criteria Due to an Indirect Trauma Exposure through a

Criteria	п	%
None criteria met	76	33.9
Criterion B: Intrusion	129	57.6
Criterion C: Avoidance	67	29.9
Criterion D: Arousal	79	35.3
Criteria B and C	53	23.7
Criteria B and D	66	29.5
Criteria C and D	51	22.8
Criteria B, C, and D	43	19.2

Practice with Traumatized Military Patients

Approximately 25% of our sample showed higher levels of STS. Interestingly, more STS was reported by off post providers than on-post. To put these rates into context we conducted a meta-analysis of all health care providers and determined the overall levels of STS in these populations for a comparison.

Meta-analysis of STS

To understand the prevalence of STS in military behavioral health providers, it was important to look at other caregiver populations. We conducted a meta-analysis that demonstrates military behavioral health providers are very similar to other mental health providers based on their STS scores. Interestingly, our overall total score for all military behavioral health providers (31.91) was about the same as substance abuse counselors (31.20), providers for survivors of family or sexual violence (32.07), and social workers in general (29.69). These scores are lower when compared to child protective services workers who demonstrate the highest scores (38.20) (Cieslak, R., Anderson, V., Bock, J., Moore, B., Peterson, A., & Benight, C. C., 2013). Collectively, our findings suggested that approximately 25% of providers will demonstrate elevated levels STS and those off post will show higher levels than those onpost. The reason for this may be due to the organizational support/structure offered as an on-post provider compared to working in a community setting. In addition, the opportunity to provide trauma focused therapies may be differential due to work-load challenges and other factors leading to differential exposure to traumatic material over time. Obviously, one cannot rule out selection differences for providers who work on-post versus off-post that may lead to differential levels of STS symptoms. The next question we wanted to answer was: what were the predictors of STS in this population to help develop strategic planning related to prevention.

Take Home Message on Secondary Traumatic Stress and STS Predictors

In determining the predictors of STS in our sample we discovered that history of direct exposure to trauma is important, as is the level of trauma patients that the provider is managing. We also found that having a negative perspective on being exposed to traumatic material from clients was also important to consider. One might view these three factors as the therapist's "trauma load". Thus, providers who carry this load into seeing large numbers of soldiers suffering from combat related trauma are at risk for higher STS. Educational efforts for providers related to these issues and selfsurveillance of STS symptoms (particularly intrusions and hyper-arousal) may help identify those who need greater support.

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Take Home Message on Secondary Traumatic Stress and STS Predictors:

- Expect approximately 20% to 25% to have some STS symptoms.
- Intrusions and Hyper-arousal are most common.
- History of direct exposure to trauma is important.
- Overloaded with trauma patients.
- Negative perspective on indirect exposure.

In addition to STS, we were very interested in the level and predictors of burnout in this population. The next section provides details on prevalence levels of burnout as well as predictors.

Prevalence Results: Job Burnout

The negative impact of burnout is substantial, especially in human services professionals. In mental health, Lasalvia et al. (2009) found that burnout substantially contributed to decreased effectiveness and poor treatment outcomes. Burnout has also been associated with more frequent voluntary and involuntary hospital admissions, as well as more negative attitudes towards patients (Holmqvist & Jeanneau, 2006; Priebe, 2004). Decreased commitment to the organization, absenteeism, presenteeism (present, but inefficacious) and turnover have also been associated with higher burnout levels (Burke & Richardsen, 2001; Morse, Salyers, Rollins, Monroe-DeVita, & Pfahler, 2012). High turnover and absenteeism are very costly to organizations and highly demoralizing to providers observing this process. This can become cyclical with turnover promoting further turnover significantly increasing costs associated with recruiting and training new providers (Taris, 2006). For the military the



implications here are significant with the combination of having both civilian providers and career military providers offering differential opportunities for leaving the organization. Beyond the patient care and organizational costs, higher levels of burnout can inflict high personal tolls on providers themselves. Burnout can contribute to developing diseases of the circulatory, respiratory and musculoskeletal systems (Mancini et al., 2015; Rollins, Salyers, Tsai, & Lydick, 2009). For the sake of

mental health providers working for the military and especially for the well-being of returning soldiers, we utilized the demands resource model again to help understand burnout in this population.

Our study found that overall (on-post and off-post providers) reported on average low to moderate amounts of burnout. Figure 1 provides the distribution of burnout scores reported by behavioral health providers working with military clients. Respondents indicated, on average, moderate amounts of overall burnout (M = 2.59, SD = .67), emotional exhaustion (M = 2.68, SD = .72) and disengagement (M = 2.49, SD = .72) on a scale that ranges from 1 = no burnout to 5 = high burnout. One can see in Figure 1 that **around 17% of the sample reported higher levels of burnout.**

Interestingly, we found that individuals who had prior military experience and had been previously deployed had higher emotional exhaustion than did those without this experience. Similarly, providers who were male, working at a military installation, had prior military experience, and been previously deployed had significantly higher disengagement levels than did women who were working off-post, had no previous military experience, and had never been deployed. Finally, somewhat surprisingly, those with a doctoral level degree reported significantly higher overall burnout.

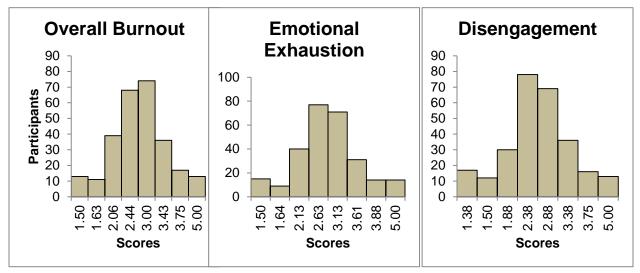


Figure 1. Histogram of overall prevalence scores are based upon percentages extracted.

We found significantly **higher levels of burnout overall and for disengagement more specifically in onpost providers compared to off-post** (F(1,274) = 4.87, p = 028, F(1,274) = 6.93, p = .024, respectively). The next set of figures demonstrates the differences between on-post and off-post providers. Figure 2 shows that on-post individuals are showing higher levels of overall burnout than off-post therapists.

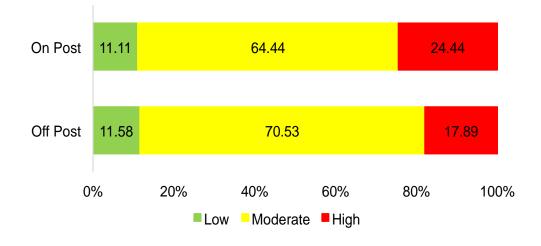


Figure 2: Prevalence Results: Overall Burnout

Scale 1 (low) to 5 (high) Low cut off score = 1.84, High cut off score = 3.22 On Post N = 95, Off Post N = 180

This is particularly evident for the exhaustion subscale. Figure 3 shows that on-post providers are showing over 2x the level of exhaustion than off-post therapists.

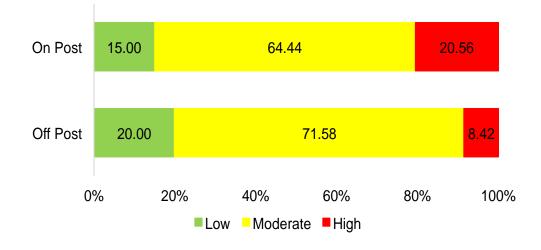


Figure 3: Prevalence Results: Exhaustion

Scale 1 (low) to 5 (high) Low cut off score = 1.84, High cut off score = 3.22On Post N = 95, Off Post N = 180

You can see that only about 8% of off-post individuals were reporting elevated levels of exhaustion compared with about 20% for on-post providers. Although the overall mean differences were not statistically significant, it does suggest a larger percentage of providers on-post reporting more exhaustion. There was a significant difference for depersonalization (i.e., disengagement from one's patients). Figure 4 demonstrates this effect.

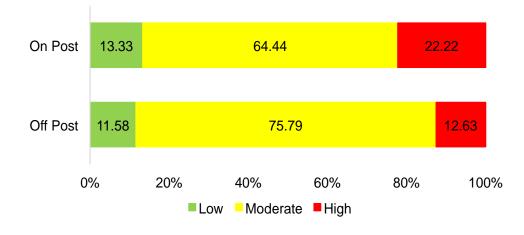


Figure 4: Prevalence Results: Depersonalization

Scale 1 (low) to 5 (high) Low cut off score = 1.84, High cut off score = 3.22 On Post N = 95, Off Post N = 180

Take Home Message on Burnout and Burnout Predictors:

- Expect approximately 17% to 20% to have elevated burnout symptoms.
- Higher percentage of burnout in on-post providers, emphasis on disengagement.
- Organizational constraints and workload significant predictors of greater burnout.
- Enhanced self-efficacy for managing work related demands related to reduced burnout symptoms.
- Military experience and deployment may have greater levels of burnout.

In order to develop some ideas related to prevention we evaluated predictors of burnout as well. We found that a higher level of organizational constraints was a significant predictor of higher burnout. Specific to the symptom of emotional exhaustion we found that higher organizational constraints and higher quantitative workload were important. Lower levels of emotional exhaustion were related to higher work demands efficacy, higher work resources management self-efficacy and higher burnout symptom management self-efficacy. In addition, having higher work resources management self-efficact predictors of lower disengagement.

These findings are relatively consistent with other research in this area. Ballenger-Browning et al. (2011) reported in Military Medicine on predictors of burnout among military mental health providers. They found that hours worked was a significant predictor of emotional exhaustion, as was being female and being a psychiatrist. Having personality disordered clients and those with traumatic head injuries were predictive of higher depersonalization (i.e., disengagement).

Phase One Summary

Overall our phase one findings suggest that a subset of military mental health providers do report significant STS and burnout. Both personal factors (e.g., self-efficacy perceptions, trauma history) and environmental conditions (e.g., social support, organizational constraints, workload) are important to consider in prevention or intervention programming. Our group has published a series of papers that may be of interest to the reader. They include:

- Shoji, K., Lesnierowska, M., Smoktunowicz, E., Bock, J., Luszczynska, A., Benight, C. C., & Cieslak, R. (in press). What comes first, job burnout or secondary traumatic stress? Findings from two longitudinal studies from the U.S. and Poland. *PLOS ONE*
- Smoktunowicz, E., Baka, L., Cieslak, R., Nichols, C. F., Benight, C.C., & Luszczynska, A. (in press). Explaining Counterproductive Work Behaviors Among Police Officers: The Indirect Effects of Job Demands are Mediated by Burnout and Moderated by Job Control and Social Support. *Human Performance*.
- Shoji, K., Bock, J., Cieslak, R., Zukowska, K., Luszczynska, A., & Benight, C. C. (2014). Cultivating secondary traumatic growth among healthcare workers: The role of social support and self-efficacy. Journal of Clinical Psychology. 70, 831-846. doi:10.1002/jclp.22070
- Cieslak, R., Anderson, V., Bock, J., Moore, B., Peterson, A., & Benight, C. C. (2013). Secondary traumatic stress among mental health providers working with the military: Prevalence and its work- and exposure related correlates. *Journal of Nervous and Mental Disease. 201(11)*, 917-925.
- Cieslak, R., Shoji, K., Douglas, A., Melville, E., Luszczynska, A., & Benight, C. C. (2013). A meta-analysis of the relationship between job burnout and secondary traumatic stress among workers with indirect exposure to trauma. *Psychological Services*. Advance online publication. doi:10.1037/a0033793
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SupportNet Intervention Randomized Clinical Trial (RCT)

In developing the intervention we decided to focus on a pragmatic and scalable approach that combined a web-based self-care program with one-on-one peer coaching. The website was called SupportNet and offered many unique features. The site was designed to enhance social support through a social media based platform. Users were able to create a network of support where they could receive direct assistance in reaching their self-care goals as well as helping others in their network with their



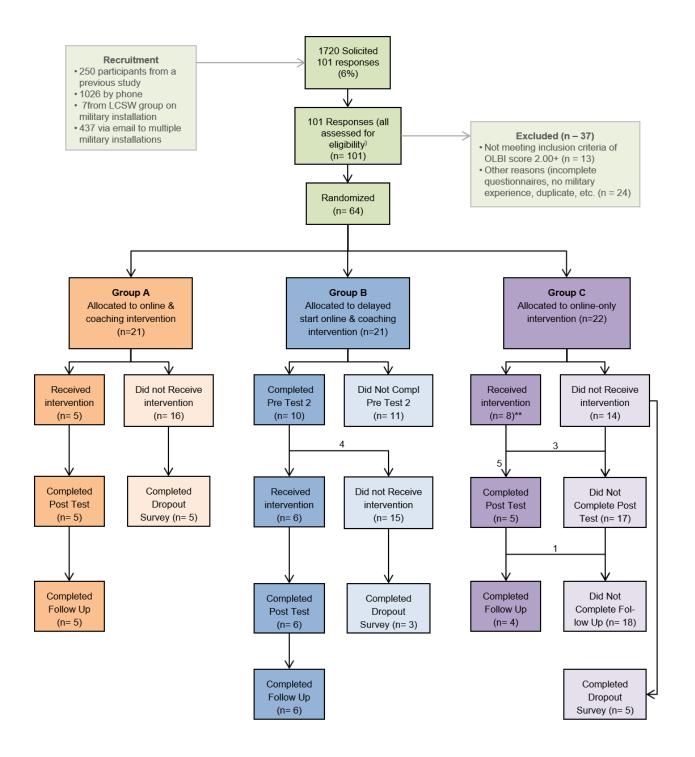
goals. In addition, "quick take 5" self-care skills were offered including quick breathing techniques or mindfulness exercises. A resource library was also included that provided up to date information on evidence based interventions for traumatic stress offered in an easy to digest format. To help providers boost their self-efficacy the site offered a user friendly goal setting system designed to assist with specificity of the goal, how to measure success, and the importance of rewards. A targeted specific goal was determined along with when, where, and with whom the person would complete the goal. Goal achievability was emphasized in order to maximize the opportunity for success, given the importance of mastery in enhancing self-efficacy (Bandura, 1997). The website offered the ability to not only set specific goals, but to also track progress toward the goal.

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The coaching process included providing education about burnout, assisting providers in setting self-care goals to increase coping self-efficacy, and supporting the participants in reaching those goals through utilization of the website. Coaching has been used to effectively address occupational stress and burnout (Biswas-Diener, 2009; Gazelle, Liebschutz, & Riess, 2014). Specifically, goal-focused coaching has been found to be an effective method of facilitating behavioral change (Grant, 2012).

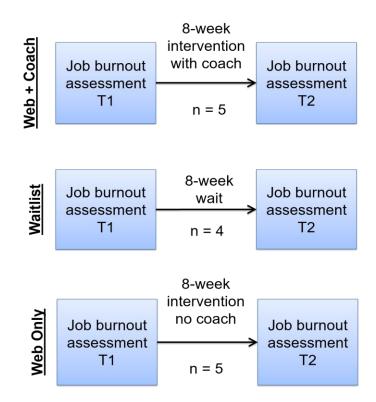


RCT: Completion, Withdrawn, Dropouts



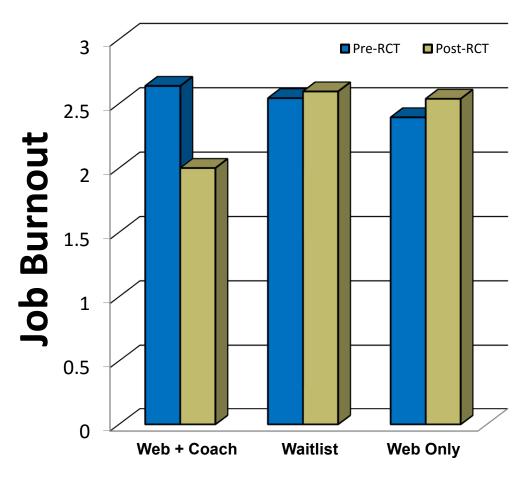
RCT Method

14 behavioral health providers working with US military were randomly assigned to one of three groups. A 2 month follow-up assessment was conducted following the 8-week post-test.



RCT Results

Randomized trials have two different ways to analyze the data. Either an intent-to-treat or completer analysis can be performed. The intent-to-treat method is more conservative. We found a significant Interaction Effect between Group and Time on Job Burnout for Intent-to-Treat Analysis for pre to post-outcomes.



Note. F(2, 11) = 6.97, p = 0.01, ηp2 = .56.

The Web + Coach group had a significant difference between pre- and post-test scores for burnout. A completer analyses (only those who completed the intervention) demonstrated even stronger effects. Scheffé's planned follow-up comparisons indicated that exhaustion was significantly lower at post-test and at 2 month follow-up than at pre-test among the coached/delayed group.

Phase Two RCT Summary

Overall results suggest the web-support system plus coaching may be effective in reducing aspects of burnout at post-test and at follow-up. Because we did not include a coaching without web-support there is no way to tease apart the importance of the web in the intervention. However, our coaches suggested that the use of the website was driven by the coaching sessions and that the participants did utilize the system. Meta-analytic results evaluating burnout interventions in psychological and medical health providers suggested similar, albeit slightly lower, effect sizes relative to our findings. Results provide preliminary support for reducing burnout in these providers through the use of a web-based support system that is designed to enhance self-efficacy and social support when it is combined with coaching. Our investigation also demonstrated the difficulties of conducting intervention research with mental health providers who are stressed and experiencing some level of burnout; participating in a study was one more thing that many chose not to add despite the benefits it could offer. However, this is the first RCT that we are aware of for any intervention for military behavioral health providers to help reduce burnout and provides at least an initial finding that a peer coaching model with web-support may be beneficial. Future studies utilizing our system and our coaching method are needed to confirm the benefits of this approach.

Final SupportNet Takeaways

 The web system designed to enhance self-care within a supportive cyber environment + peer coaching intervention may be helpful in addressing burnout in military behavioral health providers.

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- Importance of the issue: Job burnout and STS potentially increase turnover and impair performance among mental health providers. About 20% to 25% of providers will be struggling with some STS and burnout symptoms.
- Elevated negative clinical outcomes (e.g., STS or Burnout or both) possibly influencing mission readiness for soldiers.
- Important differences possibly between on-post and off-post environments relating to STS and burnout.
- Targeting job burnout may be an effective approach to prevent STS based on findings from our recent paper where burnout precedes STS in our sample (see most recent paper in Plos One (Shoji et al., in press).
- Job burnout and STS need to be addressed through both individual (e.g., self-efficacy) and organizational approaches (work load and organizational constraints).
- Finally, it is no surprise that clinicians experiencing burnout and STS are very difficult to engage in research making scientific evaluation of interventions difficult. Future studies are needed.

Interested in the SupportNet Intervention:

If you would like further information about our intervention (website plus coaching plan) please contact Dr. Benight at (719) 255-4180.

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Appendix

Trauma, Health, and Hazards Center

The mission of the Trauma Health & Hazards center (THHC) is to reduce the impact of extreme human events. This will be accomplished through social science cross-disciplinary scholarship, scientifically informed policy directives, and select educational initiatives across the spectrum of extreme human adversity (i.e., terrorist attacks, natural disasters, mass violence). The Center is uniquely positioned to provide cutting edge research, decision support, and innovation to an array of critical concerns important to both individual and collective adaptation.

The Center's faculty provide a unique combination of scientists from a variety of disciplines including Psychology, Geography, Climatography, Public Health, Political Science, Sociology, and Information Technology focused on the human behavioral dimension related to prevention, mitigation, and recovery from adversities that test the limits of human adaptation. Through these collaborative efforts the Center strives to reduce the effects of traumatic stress exposure, improve health, and enhance overall approaches to human hazards.

The THHC will work in collaboration with a variety of both private and public constituents dedicated to improving homeland and human security following extreme events. These constituents include but are not limited to: a) university departments, b) university centers, c) military, d) industry, e) homeland security and homeland defense government agencies, and f) non-governmental organizations. The Center will work with these and other entities to generate research agendas, conduct research, share information collected to increase application implementation, and provide expertise in human behavioral response as needed.

There are several branches to the Trauma, Health & Hazards Center:

- Veterans Health and Trauma Clinic
- Research
- Training and Education

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Veterans Health and Trauma Clinic (VHTC):

- Our mission is to support the wellness and mental/behavioral health needs in our military and civilian communities with integrated, evidence-based services.
- Who Do We Serve?
 - o Anyone interested in wellness-focused trauma care
 - Active Duty, Veteran and Retired Military Members & Military Families; Non-military Community
 - Survivors of physical, psychological,

sexual, & combat trauma

- o Individuals experiencing stress, anxiety, or depression
- Secondary Trauma Survivors
- Natural Disaster Survivors
- o First Responders
- Specialization in Eating Disorders/Trauma
- What makes us integrated?
 - Uniquely positioned in the community to coordinate care with the client, the client's family, Lane Center clinics (nutrition, exercise, medical care) and other community partners

Research:

The THHC has a number of active research studies. A more comprehensive list can be found at: www.uccs.edu/thhc.

• EASE Study: This NSF funded study aims at building a smart system that empowers individuals who are suffering from traumatic experiences by combining sensing and machine learning to improve treatment. Our goal is to develop a web-based intervention that automatically adjusts to user's responses to provide the most optimal service depending on user's emotional and physiological states. It is funded by the 4-year Smart and Connected Health grant through the National Science Foundation.

Training and Education:

- Ph.D. in Clinical Psychology with curricular emphasis in Trauma Psychology: The Clinical Psychology Ph.D. program at the University of Colorado Colorado Springs is an APA accredited program that is built on the Boulder Scientist/Practitioner Model. The program has been accredited since 2007 and has full accreditation through 2019. A curricular focus in Trauma Psychology was approved in 2014 (http://www.uccs.edu/psych/graduate/phd-program/phdclinical-psychology-trauma.html). Applications are due by December 1, 2017, and the third class in the Clinical Psychology Ph.D. program with curricular emphasis in Trauma Psychology will matriculate in Fall, 2017. This emphasis is designed to train students who have a particular interest in conducting research and working clinically with traumatized individuals.
 - The Trauma, Health & Hazards Center is pleased to support this program with financial, research and other infrastructure support for students and faculty. The Veterans Health and Trauma Clinic (http://www.uccs.edu/healthcircle/veterans-health-and-trauma-clinic.html), the mental health clinic under the auspices of the THHC, will serve as the primary clinical training site for students in their second and third years of the Ph.D. program.
- Peer Support Program Services: A preventive peer support program that trains volunteer first
 responders in basic counseling skills and gives them the knowledge they need to identify
 individuals with posttraumatic difficulties and guide them to seek appropriate treatment. The
 CU Trauma, Health, and Hazards Center provides a variety of services designed to build
 awareness among all first responder department personnel, cultivate and train new peer
 supporters, and provide ongoing training and consultation with existing peer supporters. These
 services are highlighted below.