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"We Are Disaster Response Experts": A Qualitative Study on the Mental Health Impact of Volunteering in Disaster Settings Among Combat Veterans

Derrick Kranke[a], Eugenia L. Weiss[b], Kevin C. Heslin[c], and Aram Dobalian[a,d]

[a]Veterans Emergency Management Evaluation Center, U.S. Department of Veterans Affairs, North Hills, California, USA; [b]School of Social Work, Orange County Academic Center, University of Southern California, Irvine, California, USA; [c]Agency for Healthcare Research and Quality, Rockville, Maryland, USA; [d]Department of Health Policy and Management, UCLA Fielding School of Public Health & UCLA School of Nursing, University of California Los Angeles, Los Angeles, California, USA

ABSTRACT

Volunteers serving in a disaster context may experience harmful mental health effects that could impede rescue operations. Exploratory research suggests that combat veterans who volunteer in Team Rubicon (TR)—a disaster relief social service organization with the mission of uniting the skills and experiences of military Veterans with first responders to rapidly deploy emergency response teams—have positive mental health responses when providing disaster relief. The objective of this qualitative study was to identify those nuances associated with combat veterans' mental health response in TR. The study consisted of (N = 9) male combat Veterans who volunteered with TR. Data was thematically analyzed. Results suggested that members did not experience negative mental health effects because of prior military training and preparedness relevant to disaster situations. Positive outcomes in mental health were associated with the uniqueness of peer support in TR and applying skills from military training. Veterans in TR reported that providing disaster relief afforded them the opportunity to continue serving others after having served in the military. Implications for public health social work are discussed as well as the need for further research.

KEYWORDS

Disasters; mental health; qualitative; veterans

Between the years 2004 and 2013, there were approximately 500 to 800 worldwide disasters on an annual basis (International Federation of Red Cross and Red Crescent Societies, 2015). Disaster settings may have harmful impacts on victims of disasters as well as those volunteers or first responders who come to the aid of survivors. Disaster settings contain potentially traumatic stressors for volunteers, such as exposure to dead bodies, deformations of people, the destruction of property, and release of hazardous chemicals (Thormar et al., 2010). Disaster volunteers play a critical role in promoting recovery of disaster stricken areas. Volunteer work is defined as, "freely chosen and deliberately helping activities that extend over time, are engaged in without expectation of reward or other compensation and often through formal organizations, and that are performed on behalf of causes or individuals who desire assistance" (Snyder & Omoto, 2008, pp. 3–5). In affected areas, volunteer work speeds up the recovery process and reduces costs and mortality rates. Such tasks include rescuing persons from rubble, evacuating bodies and body parts, removing debris, and distributing food, among others. These tasks can take a toll on the mental well-being of volunteers as many report suffering from posttraumatic stress disorder (PTSD) (Tak, Driscoll, Bernard, & West, 2007; Thormar et al., 2014), depression (Tak et al., 2007), and

CONTACT Derrick Kranke derrick.kranke@va.gov Research Health Scientist, Veterans Emergency Management Evaluation Center, US Department of Veterans Affairs, 16111 Plummer St., MS-152, North Hills, CA 91343.

experiencing somatic complaints (Morren, Yzermans, Van Nispen, & Wevers, 2005) after assisting in disasters. A great deal of literature has identified the mental health consequences of disasters among surviving victims, however, there is much that remains unknown about the mental health consequences of disasters on volunteers (Thormar et al. 2014, 2014; Thormar et al., 2010; Zhang et al., 2011).

In general, volunteering is often associated with enhanced mental health (Wilson, 2012) and fewer depression symptoms (Hong & Morrow-Howell, 2010). Helping others has been found to boost an individual's self-esteem (Fraser, Clayton, Sickler, & Taylor, 2009) because it takes away from daily stressors of the everyday job while also connecting volunteers with new friends and social networks. However, the context in which individuals volunteer does show different effects on mental well-being (Hoffman, 2008; Ironson, 2007). For instance, individuals who volunteer in HIV caregiving are more likely to suffer feelings of depression because of the nature of the work in helping those with a terminal illness (Akintola, 2008).

Furthermore, individuals who provide aid in disaster settings respond differently to the stressors. Volunteers are recognized as being the most vulnerable to suffering mental health issues because of the lack of preparedness and training. Thormar et al. (2010) conducted a review of the mental health of volunteers after working in disasters. The researchers found that the following circumstances contribute to mental health complaints among volunteers: identification with victim as a friend, severity of exposure to gruesome events during disaster work, anxiety sensitivity, and lack of postdisaster social support. These findings are limited to "community volunteers" who are commonly walk-in volunteers and respond to the declared need or those from humanitarian organizations and they typically do not belong to a work place with a structured support network. They are also usually between ages 18 and 30 and immediately available because many of them are unemployed and/or students (Thormar et al., 2010). Professional rescuers or first responders, such as firefighters and police officers, are also vulnerable to PTSD; however, they have protective factors that may mitigate the severity of the impact, such as preparation and/or training (Perrin et al., 2007), previous exposure to gruesome images (Epstein, Fullerton, & Ursano, 1998), and experience in dealing with postdisaster life events (Epstein et al., 1998). Research among volunteers is limited because it has yet to examine U.S. military personnel and military Veterans serving as volunteers.

Military personnel and prior Service members may be considered ideal volunteers in disaster settings because they are trained in survival skills (Zhang et al., 2011), for instance, being able to withstand extreme weather conditions, or sleeping in unconventional settings. As mentioned, volunteer work in disaster settings often entails destruction due to inclement weather or demolished property or housing that reduces potential dwellings for volunteers to use for resting.

Team Rubicon (TR), a nonprofit social service organization formed in 2010 by U.S. military Veterans, has a primary mission to provide disaster relief to those affected by domestic or international natural disasters by uniting "the skills and experiences of military veterans with first responders to rapidly deploy emergency response teams" (Disaster Response Veterans Service Organization & Team Rubicon, n.d.-a). The organization has more than 30,000 military Veterans mostly from the Iraq and Afghanistan wars and civilian (nonveteran) first-responder volunteers. The volunteers offer incident management, damage and impact assessment, disaster mapping and work-order management, debris management, hazard mitigation, and medical (international settings only) among others. In addition to its primary mission of disaster relief, TR helps Veterans transition from military to civilian life by providing Veterans with "three things they lose after leaving the military: a purpose, gained through disaster relief; community, built by serving with others; and self-worth, from recognizing the impact one individual can make" (Disaster Response Veterans Service Organization & Team Rubicon, n.d.-b).

However, research findings on the impact of such volunteer work on the mental health of military members and veterans are limited and inconsistent. One study (Zhang et al., 2011) found that Chinese soldiers that responded to the 2008 Wenchuan earthquake suffered from mental health symptoms, namely, irritability—restlessness and sadness. A major concern with the aforementioned soldiers providing disaster relief was that they did "not receive formal training on working with

civilians after traumatic events" (p. 207). In contrast, recent findings (Kranke, Saia, Gin, Heslin, & Dobalian, 2016; Kranke et al., 2017) report that TR members experienced benefits to their mental health by engaging in disaster relief, such as the volunteer work helped individuals feel reintegrated into civilian society, provided the volunteer with the opportunity to connect with and support fellow veterans and civilians victimized by disasters, and provided the volunteer with a sense of satisfaction that the volunteer work allowed them to apply their specialized skills attained in military training. Additional research is needed to identify what factors may make the TR experience different from other veterans who volunteer in disaster settings.

Conceptual framework

The ecological approach will be applied to explain the behavior and mental health response of volunteers in disaster settings, particularly for those participating in TR. The emphasis of the ecological perspective is survival based upon a populations' adaptation to its environment (Sallis, Owen, & Fisher, 2008). This perspective has relevance to disaster settings because the environment can limit availability of resources (i.e., food, water, and shelter), volunteers are dependent on the contributions of the group as a whole to complete assigned tasks, and volunteers in disasters modify behaviors to endure the harsh conditions. According to Stokols, Grzywacz, McMahan, and Phillips (2003), the ecological perspective contains four key components:

(1) Behavior is influenced by physical environments, social environments, and personal attributes.
(2) Environments are multidimensional, such as social or physical, actual, or perceived, spatial arrangements, or social climate.
(3) Human-environment interactions occur at varying levels of aggregation (individuals, families, cultural groups, whole populations).
(4) People influence their settings, and the changed settings then influence behaviors (Sallis et al., 2008, p. 469).

The objective of this qualitative study was to assess the mental health impact of volunteering among a group of U.S. combat Veterans who engage in disaster relief through their involvement in TR. Volunteer mental health is a public health concern because these health hazards could distract resources and possibly impede rescue operations (You, Chen, & Yao, 2009; Zhang et al., 2011). We also explored whether there may be a therapeutic benefit for veterans engaging in disaster relief.

Method

The qualitative approach used in this study allowed for more in-depth exploration of the mental health impact of disaster volunteer work on Veteran TR members that could then inform social service agencies providing this type of assistance.

Sample and sampling procedure

There were a total of nine ($N = 9$) participants. All participants were male, an average of 36 years old (range 24–57 years), five reported as White, and four as Latino, all participants served in combat, and the average time served in the military was 9 years (range: 4–24 years). Eight respondents served in Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OEF), five were in the Marine Corps, and four were in the Army. Participants have been separated from the military for about 10 years ($M = 10.4$ years, $SD = 5.9$, range 6–25). Four are currently married, three never married, and two are divorced or separated. None of the Veterans in the study had ever participated in any type of formalized mental health treatment, even during their deployments.

Participants were indirectly recruited through an email sent by the TR program director to the entire TR roster of volunteers on the West Coast (N = 155). The email announced the study, explained the inclusion criteria, and provided a contact number for the study. Interested Veterans called to obtain more information about the study. Inclusion criteria were that the subjects must be at least age 18 years, must be available for an in-person interview during the interview period, and must have been deployed on one mission with TR.

Data collection

The study protocol was approved by the Department of Veterans Affairs (VA) Greater Los Angeles Healthcare System Institutional Review Board (IRB). The data for this article comes from a larger qualitative and IRB-approved cross-sectional study of TR members' perceptions of the therapeutic benefit of doing emergency response work (see the Appendix for sample questions from interview instrument). The term *therapeutic benefit* refers to self-reports of general states, such as self-efficacy, sense of purpose, team spirit, resilience, and life satisfaction. To elicit data on therapeutic benefit, the researchers conducted face-to-face interviews where each respondent was asked a series of general questions about his life in four different time periods: (a) before military deployment, (b) during military deployment, (c) after deployment but before joining TR, and (d) after joining TR.

The interviewers used probes to elicit data on respondent's perceptions of daily activities, professional relationships, and physical and social environments. Each interview lasted between 1 and 2 hours, and the participants received no compensation for participating. Interviews were conducted over a 3-month period in 2014.

Data analysis

Digital audio recordings of interviews were transcribed and then analyzed using Atlas.ti (Muhr, 1993), a software program designed for qualitative data management and coding. In the first analytic step, the authors applied a priori codes from the Thormar et al. (2010) study. A priori codes included identification with victims, response to gruesome events during disaster work, response to chaos, and postdisaster social support. During the initial step, researchers looked for either negative or positive responses to participants engaged in disaster work. The significance of the themes was determined by "substantive significance" (Patton, 2002), which refers to increasing depth of increasing knowledge about the topic of study. An additional theme emerged related to veterans and volunteering and "the need to continue serving" (Matthieu, Lawrence, & Robertson-Blackmore, 2017). In the second step, we sorted themes by shared content (i.e., "I experienced similar chaos while serving" or "we were prepared in the military to handle the unexpected"). The themes characterized the participant's overall mental health response to volunteering in disaster work. Third, the researchers utilized the constant comparative method (Boeije, 2002) to organize the themes to reflect any nuanced understandings from existing literature.

To establish a measure of coding reliability in the thematic analysis, two researchers conducted independent coding of the narratives. Then, they reviewed the codes, discussed differences and similarities, and as a team, merged the coding into a master codebook.

Results

The thematic analysis is divided into five themes that inform a priori themes abstracted from existing research (Matthieu et al., 2017; Thormar et al., 2010). Findings provide a nuanced understanding that Veteran TR members experienced a positive impact on their mental health by engaging in disaster relief: identifying as saviors to disaster victims, handling exposure to

gruesome events during disaster work, prepared to handle chaos, and postdisaster social support. The context associated with providing disaster relief helped TR members feel a renewed sense of being of service to others.

Identify as being "saviors"

Although no participants reported that they provided disaster relief for loved ones or friends, they did empathize with the victims. In many cases, the TR members were the first on scene to prevent further damage from leftover debris or provide immediate medical attention to the injured. Civilian victims were grateful to the TR members and perceived them as "saviors" because they limited further loss while also bringing stability until other rescue teams arrived on the scene. TR members thrived in this setting because the work involved emotions that resembled what they experienced while serving in the military. One respondent noted:

> The sense of purpose I get out of being with Team Rubicon is just knowing that I've helped so many families…. We're all working together for that, you know, that sense of pride in knowing that we've helped families out, that we've just saved lives in just a different form.

TR members perceived the disaster context as an opportunity to continue serving others and their country as another participant stated, "I desire to serve others, to help those that can't help themselves, to carry them on my shoulders, and to know at the end of the day I have directly impacted their life."

Ultimately, the emotional connection TR members felt from helping disaster victims made them value the work they did. An individual remarked, "That's what it's about … that moment of emotional connect—with the people that [we] are directly benefiting."

Handling chaos

TR members' military training made them well equipped and prepared to handle the anxiety of chaos from disasters. Harsh conditions, such as unsafe sleeping arrangements and constant stress of handling the unexpected, were commonplace in combat and disasters. A participant stated the following illustrative quote:

> Combat is one big disaster. It's about being cool under pressure, being comfortable sleeping on rocks, having the composure to put your hands on someone that needs hands put on them to be healed. It's the skills overlap very, very well and mainly it's pain tolerance, ability to operate under stress.

It seemed that TR members' ability to manage chaos was effective in part because their demeanor calmed civilian victims whose lives were in disarray. Ultimately, the positive response allowed TR members to maintain their schedule and timing to complete their essential tasks. Furthermore, military training to assess and be constantly aware of the threats in their environment, as well as functioning as part of a unit, helped TR members to address and mitigate ensuing chaos quickly and with minimal damage. For instance, a Marine participant stated:

> We're so used to, in the Marines, especially as infantry, grunt guy, um, just responding to chaos. But responding to chaos in a very organized fashion, in a very, you know, I don't know if you want to say calm but we definitely had that sense of, all right, we know our surroundings.

Handling exposure to emotionally disturbing events

Combat Veterans are likely better prepared to carry out the work in disasters because most have already been exposed to the sightings of body parts and dead bodies. This is not to necessarily say they will not be affected by witnessing injuries and deaths, but that the disturbing impact of the disaster will not be as much of a shock to them in comparison to most civilian (nonveteran)

volunteers for whom injury and death is a less common experience. The ability to maintain composure while working in environments that contain dead bodies and body parts is critical to carrying out the mission of disaster relief. One participant describes how the disaster setting was similar to the war zone:

> There was one horse farm that lost nearly 200 horses, and we were asked to go out and clear some of the debris … the scent of the decomposing horses [reminded them of] death, of places they had been in Afghanistan or Iraq.

Postdisaster social support from fellow TR volunteers

All participants (N = 9) described that they had an overwhelming show of support from fellow TR members, Veteran and nonveterans. The support in TR resonated with the support they felt from peers while serving in the military. The following quotes offer a glimpse into the sense of felt support, "Some of these guys [in TR], I consider them my best friends … more of my family than my own family." The TR culture did deviate from the military culture because, "it's [like] a church group when people get together everyone is just actively open and supportive and unconditionally positive…. It's the most unconditional, positive, supporting, understanding dynamic I've ever experienced."

The support of TR members extended beyond the social and individual aspects, as well as outside of deployment in disaster settings. For example, one participant noted, "There's been times when someone has had a problem, like their mother died and they needed help. So people have provided social support, and monetary support." TR members provided social support both in-person and on social media to those members that were outside of their reach, "So we're 16000 members right now, without Facebook, without Twitter, this couldn't happen."

The need to continue serving

The type of social service and community work that TR members engaged in while providing disaster relief aligns with the conceptualization of volunteering suggested by Snyder and Omoto (2008). However, TR members may not classify themselves as volunteers because they provide the disaster relief as an outlet to continue serving and repaying their country for their skills set acquired in the military. For example, one participant stated:

> A lot of us are combat vets, a lot of us are wounded combat vets. But, our public face and our internal face is that we are disaster response experts that we have a set of skills Uncle Sam paid for and gave us that we have an obligation to give back to our community.

Discussion

The ecological perspective aligned with the findings of the study to help explain the mental health response of combat Veterans volunteering in disaster settings. First, the behavior of TR members was largely influenced by social environments in the disaster settings. They adapted to their respective disaster setting to survive and sustain the emotional and physical devastation associated with disasters. For instance, fellow TR members were extremely supportive of fellow Veterans and engaged in behaviors and interactions that appeared to have enhanced their mental health. Some of the disaster settings triggered emotions or feelings that were internalized during combat deployments, and TR members realized they were in a "culture that no longer dictated what they could or could not feel." Therefore, they engaged in a form of normalizing and sharing experiences to help their fellow "brothers." In addition, the human interactions of study participants with civilians victimized by disasters (i.e., interaction at varying levels of aggregation) helped TR members feel a sense of purpose outside of serving in the U.S. military. They were "saving lives in a different form."

Furthermore, TR members influenced their settings because they promoted a culture among other Veterans of being a multifaceted support group. They were dedicated to provide relief to victims of disasters, and "brothers" trying to find their place in society. The aforementioned factors may have helped to promote a positive mental health impact that was distinct from previous findings of other volunteers (Thormar et al., 2014; Zhang et al., 2011). The following paragraphs will delve further into the possible explanations for how our findings differ.

Findings from the current study suggest that volunteer disaster relief work for Veterans may be fundamentally different than what it would be for many civilians. It is unlike the experience of trained professional first responders such as police and firefighters and is unlike the experience of first receivers such as health care personnel who may have similar responses to Veterans. Furthermore, the aforementioned groups (police, firefighters, and health care personnel) may not always consider disaster relief as "volunteering" because they believe it is part of their duty to withstand further losses. Future work should explore these groups who provide disaster relief to identify how their "call of duty" affects their ability and mind-set to overcome those factors that typically affect volunteers' mental health in disaster settings.

Our findings with volunteers in disaster settings show TR members experienced benefits to their mental health and self-esteem by identifying as saviors of disaster victims. TR members were committed to serving those in need and providing relief ignited a feeling of connection with nonveteran civilians that many had not felt since leaving the military. The direct emotional connection with a civilian who was victimized by a disaster made these combat Veterans feel a sense of belonging in society "that's what it's about—that moment of emotional connection."

Study participants also expressed limited stress levels while volunteering in disaster relief because many of them were conditioned to deal with chaos. One participant said, "It's about being cool under pressure." TR members reported thriving in disaster settings because these paralleled the chaos experienced in combat. This finding is unique in that many nonveteran volunteers in civilian settings have limited experience of operating in chaotic situations, with the exception of police officers, firefighters, and emergency health care personnel. Volunteer work is often linked with taking away from peoples' daily stressors of their everyday job while also connecting volunteers with new friends. However, our review of volunteering and this study's findings illustrate that the context in which individuals work does show different effects on mental well-being (Hoffman, 2008; Ironson, 2007). Disaster work often entails the potential for poor mental health outcomes because of the witnessing of graphic and violent scenarios.

In addition, TR members were able to withstand the gruesome images of civilians injured from the disasters. Similar to police officers, combat Veterans have preparation and training in dealing with gruesome sightings (Epstein et al., 1998). Some of the combat Veterans had witnessed casualties of "brothers" while serving in combat, which may have minimized the mental health impact of witnessing body parts or dead bodies of civilians they had not known.

Furthermore, this study's participants reported fewer instances of stigma in addressing the impact of volunteering on mental health issues in comparison with the Chinese soldiers. As previously mentioned, the Chinese soldiers did "not receive formal training on working with civilians after traumatic events" (Zhang et al., 2011, p. 207). This finding needs more exploration to identify the level of exposure among Chinese soldiers with civilians. The key difference may be that the Chinese soldiers were active duty military whereas TR includes Veterans, that is, former military members who have returned to civilian life. Another explanation for the different response is that the TR members were not stigmatized against sharing the emotions and feelings associated with their experiences during deployments to disaster settings (Kranke et al., 2017). TR members noted an overwhelming show of support from fellow Veterans to disclose mental health concerns. In contrast, Chinese soldiers reported a high level of stigma to discuss the mental health impacts of engaging in disaster relief.

Finally, study participants reported mental health benefits because TR members improved their self-esteem by establishing new social networks and camaraderie with fellow Veterans. The study

participants reported the social support in TR was unlike any other they had ever received before as a civilian or even in the military. For instance, fellow TR members provided social support to help peers immediately confront traumatic emotions and feelings triggered by the devastation of the disaster settings. These triggers had the potential of being catastrophic for the combat Veteran volunteers' ability to function, but those TR members that were further along in the process of addressing triggers of combat trauma guided peers to overcome the triggers and sustain their mental health. The social support appeared to extend beyond deployment settings, as fellow Veterans communicated with each other through social media after returning from deployments. These mental health benefits may not have occurred, or at least may not have occurred as quickly as they did if the combat veterans were not volunteering for disaster relief.

Limitations and future research

The nature of this qualitative cross-sectional study limits generalizability and understanding the long-term implications of TR members' mental health impacts. In addition, the sample consisted of all men, therefore, future research should also examine the experience of women TR members to identify if the experience is similar. Future research should gather longitudinal data because most studies do not have data for volunteers and mental health beyond 13 months postdisaster (Thormar et al., 2010). It would be interesting to also compare our findings with the experiences of civilian members of TR.

Implications for public health social work

From a social work public health perspective, volunteering in disaster settings could serve as a combination of primary, secondary, and tertiary interventions for combat Veterans. For instance, the volunteering, the social support and the fulfillment of serving others could be preventative elements in mitigating the development of PTSD or other mental health conditions associated with combat exposure (i.e., primary prevention), could serve to reduce the impact of poor health outcomes associated with combat (i.e., secondary prevention), or alternatively, could be a source of assistance for veterans to manage an existing mental health condition (i.e., tertiary prevention and as a complement to traditional and evidence-based practices provided by a professional behavioral health provider). As noted by Cederbaum, Hu, and Klusaritz (2016), public health social workers are particularly suited to engage in "prevention [and intervention] activities across the spectrum" (p. 347) and thus positively "influence health and wellness" (p. 343) across communities.

Conclusion

Limited research examines the mental health impact of volunteering in disasters. This study sought to expand that literature by assessing the experiences of combat Veterans who volunteer in disaster settings through TR. Compared to the existing literature on civilian (nonveteran) disaster volunteers, we identified key differences among male combat Veterans because of their military training and preparation in dealing with situations similar to disasters, and continued social support. Engaging in mental health discussions with fellow Veterans to process feelings and emotions triggered by the environment–the disaster setting–helped the TR members because it minimized the potential damaging effects associated with the losses in disasters. However, as a qualitative exploratory study, our findings are not generalizable and warrant further investigation because mental well-being is not only critical for volunteers to ensure their mental health and facilitate rescue operations, but also because mental health is crucial to the well-being of our entire society.

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Appendix

Sample questions from interview instrument

1. How did you find out about TR? Why did you join TR?
2. How are you using the skills and the expertise that you developed from your experience in the military in TR?
3. Please talk a bit more about those relationships you've built with the volunteers (in TR)?
4. Would you mind talking about the kinds of emotions that would come up on a Team Rubicon deployment and how you connect with other guys?
5. What about your deployments with Team Rubicon in particular breeds a different environment where it is a safe place to talk about feelings?
6. In general, do you feel your life is different since you've joined TR? If so, in what ways? Are there things in your life that are easier or more difficult?
7. How does TR fit in with other work or life goals that you have?
8. What did you like most about your experience with TR?