Multi-site Programming Offered to Promote Resilience in Military Veterans: A Process Evaluation of the Just Roll With It Bootcamps

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Abstract

Background and Purpose: Military and veteran suicide rates exceed those found in the general population. Veterans often reject patient identities, creating barriers to care for mental health within the clinical sector and a mandate for prevention programs. The purpose of this study was to offer a post-intervention process evaluation of one peer-led resilience program offered to military veterans of Iraq and Afghanistan at three sites in 2013.

Methods: Secondary analysis of survey data collected involved mixed-methods analysis of open and closed-ended questions. In total, the research team reviewed 52 electronic survey responses; participant response rate was 48.1%.

Results: Descriptive data analysis found that all participants rated Just Roll With It Bootcamp content as “somewhat useful” (17.9%) or “very useful” (82.1%). Qualitative analysis of open-ended questions found that content was perceived as valuable by participants. Emergent themes included: health practices, social support, and participant quality of life or satisfaction. Comments also informed four subthemes which included: meditation/mindfulness, nutrition, physical practice, and the seminars’ physical environment.

Conclusion: Culturally-informed prevention programs that emphasize social support, physical movement, and peer-leadership have a vital role to play in working to prevent suicide by promoting quality of life for veterans.

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Introduction

Before the wars in Iraq and Afghanistan, the incidence of suicide in active duty U.S. service members was consistently 25 percent lower than in the civilian population. Currently veteran suicide rates exceed those found in the general population, with 22 per day being the most conservative estimate by the Veteran’s Administration (Department of Veterans Affairs, 2014). While clinical health services exist for service members and veterans with mental health conditions like posttraumatic stress, they are not stemming the rising tide of service suicides. For example, analyses of VA mental health services utilization among Iraq and Afghanistan veterans showed the majority of those with a new PTSD diagnosis did not receive the optimal number and intensity of sessions (Seal, Maguen, Cohen, Gima, Metzler, Ren, Bertenthal, & Marmar, 2010).

Health professionals need to advocate for something new to change military veteran suicide numbers (Spelman, Hunt, Seal, & Burgo-Black, 2012). A pre-incident approach is indicated, one that shifts the focus towards resilience training and prevention. Training
protocols differ from treatment prescriptions and address the problem preventively, without the same stigma barriers (Meredith, et al., 2011; Norris, 2003; Seaward, 2004). Resilience programming aims to offer this new approach. The purpose of this study was to offer a post-intervention process evaluation of one particular model for peer-led resilience programming.

Curriculum Design
The research basis for specific somatic treatment protocols in treating stress injury and promoting optimal nervous system regulation exists (Chong, 2011; van der Kolk, 2014). Somatic protocols focus on stress management and resilience cultivation through focused movement, breath, and body awareness exercises (Seaward, 2004). Physically-focused interventions have been highlighted in community setting studies as effective in reducing stress and anxiety (Stankovic, 2011) and in individual case studies looking at mindfulness and mood recovery (Jha, Stanley, Kiyano, Wong & Gelfand, 2010). Training in resilience focuses on building agency can ameliorate the problem of stresses due to deployment both before and after the tour (Ryan, 2012). Resilience is the ability to adapt in the face of adversity, serving as a protective factor following exposure to combat, trauma, or stress; individuals who have protective traits of resiliency are likely to experience lower levels of transitory stress that impairs functioning (Green et al., 2014).

Theoretical Basis
Researchers seeking to promote mental health in military personnel or to design programs to reach veterans currently suffering can derive delivery timing and content knowledge from a study of contemporary Resiliency Theory. Resiliency Theory as it applies to health behavior change is a powerful paradigm from which to approach research and programming, primarily because it promotes a model of client involvement, agency, and control. Research has shown that, indeed, much of what seems to promote positive adaptation despite adversity does originate outside of the individual — in the family, the community, the society, the culture, and the environment (Richardson et al., 1990). Further research has led to the concepts of resilient reintegration, whereby a confrontation with adversity can lead for some to a new level of growth, indicating that resilience is something innate that needs only to be properly awakened (Fleming and Ledogar, 2008).

Program’s Innovative Contribution to the Field
Within the military community, screening and treatment for depressive disorders are readily available (Department of Veterans Affairs, 2014; Hoge & Castro, 2012). The problem is getting veterans to avail themselves of treatment services (Currier, Holland, & Allen, 2012; Elnitsky et al., 2013; Koo & Maguen, 2014). In one post-deployment study, 42% of screened reserve and National Guard soldiers answered questions in such a way that they were flagged as being in need of evaluations and possible treatment. However, only half of those soldiers referred sought treatment. Only 30% of those that sought treatment followed the basic program through the full eight sessions (Coughlin, 2012). Part of the issue is the stated disconnect combat veterans feel from civilians, even civilian mental health professionals who treat the military population (Malmin, 2013). Service members and veterans often feel they are wasting their time dealing with people who cannot relate to their perspective, and may actually feel more comfortable in the war zone (Hoge, 2010). Veterans’ reported sense of disconnect while transitioning out of Active Duty service may actually be stronger for the modern veteran; only 12% of men and 3% of women under the age of 35 are veterans of Iraq or Afghanistan (Castro & Kintzle, 2014). The research shows that this cultural disconnect may be generational, impacting younger veterans of Iraq and Afghanistan to a greater degree than predecessors. Because of military culture insularity and the lack of communication between bureaucratic treatment agencies, programs that seek to collaborate, bridge gaps, and use peer leadership meet with real success (Greden, 2010).

After an extensive review of the literature, a team of health promotion professionals and military veterans designed a mental health
promotion and suicide prevention training to deliver in a one-day seminar. Curriculum development was grounded in Resiliency Theory and informed by epidemiological assessment of the priority population that included interviews with potential participants. Per the literature, the one-day curriculum was designed to include a heavy emphasis on physical movement, social support cultivation, self-care, mindfulness and stress management (Jha, & Kiyonaga, 2010; Libby, Corey, & Desai, 2012).

All seminars offered both a scientific or informational component and a practical application component. For example, classes on the science of the body’s stress response were followed by a meditation session to offer experiential learning and skill development. All periods of instruction were offered by a military veteran who began the module by sharing personal narrative to establish audience connection. In partnership with the non-profit group Team Red, White, and Blue, researchers delivered peer-led programming to veterans of Iraq and Afghanistan at three sites in 2013 under the name “Just Roll With It Bootcamp.” The purpose of this study was to offer a post-intervention process evaluation of one peer-led resilience program offered to military veterans of Iraq and Afghanistan at three sites in 2013.

Methods

Study Design
Survey data were initially collected by the program team to offer process feedback for the seminar developers. Data were not analyzed between program delivery sites and curriculum remained standardized throughout the 2013 presentation series. Secondary analysis of the data by an interdisciplinary research team began in January 2015. The study was submitted to the Institutional Review Board of the Charleston Southern University for review. Because the analysis was secondary in nature and did not involve contact with human subjects, this study was granted exemption from the review process.

Participants
The program curriculum described was standardized and delivered at multiple sites to groups of veteran participants affiliated with the non-profit organization Team Red, White, and Blue. Participation in the one-day seminar was free and voluntary. The program was offered in San Diego, CA in November of 2012, Arlington, VA in May of 2013, Houston, TX in June of 2013, and Hermosa Beach, CA in August of 2013. Post-intervention assessment data were not collected in San Diego, and analysis includes only the last three sites. As shown in Table 1, participation varied.

Table 1.

<table>
<thead>
<tr>
<th>Site</th>
<th>Attendee n</th>
<th>Surveys Received</th>
<th>Evaluation Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arlington, VA</td>
<td>50</td>
<td>21</td>
<td>42%</td>
</tr>
<tr>
<td>Houston, TX</td>
<td>18</td>
<td>13</td>
<td>72%</td>
</tr>
<tr>
<td>Hermosa Beach, CA</td>
<td>40</td>
<td>18</td>
<td>45%</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>52</td>
<td>48.2%</td>
</tr>
</tbody>
</table>

Measures

A survey instrument focused on process evaluation was developed by two of the authors of the present study, both of whom were directly involved in program delivery at all four sites. The instrument was screened and edited by a panel of four experts. This panel of experts, recommended because of their experience with veterans’ reintegration programming, included prior leaders of the Veterans’ Yoga Project, veterans’ health clinicians, and university faculty. The program team made appropriate modifications to the instrument based on the feedback received. The final version of the survey consisted of eight items, four closed-ended items and four open-
ended items. Two of the closed-ended items related to participant knowledge about the partner non-profit and are not included in this process evaluation, as they did not pertain to curriculum or delivery. The first closed-ended question included in analyses asked participants to rate the usefulness of the material covered as very useful, somewhat useful, entertaining but not useful, or not at all useful. The second closed-ended question asked participants to rate the content, speakers, and activities presented as outstanding, good, neutral, or poor. Open ended questions asked participants about the following: their favorite content, the content they found confusing or not helpful, how they would improve the seminar, and any additional thoughts they had related to the day-long experience. The survey was intended to be short and anonymous to maximize participant willingness to complete them electronically. No demographic data were collected, resulting in limitations to conclusions that may be drawn.

**Procedures**

After the survey was finalized, SurveyMonkey, Inc. software (Palo Alto, California, USA) was used to format the instrument for administration. The SurveyMonkey instrument was then pilot tested to determine completion time and functionality. Using information from the pilot test, a format for the instrument was finalized. Within twelve hours of the conclusion of the seminar, surveys were distributed electronically to the e-mail addresses of all attendees. In an effort to increase the response rate, one reminder e-mail was sent seven days after the initial evaluation solicitation. Responses were confidential, and data were collected and reported in aggregate via SurveyMonkey, Inc. software.

**Analyses**

Survey questions were both quantitative and qualitative in nature. Qualitative answers were coded independently by three researchers following accepted standards (Kruger & Casey, 2000). A code book was created as themes emerged from initial analysis. Coders met to gain consensus about emergent themes. The team created charts of central themes with subthemes in an iterative process. The charts were then coded according to the number of mentions a given theme or subtheme received, culling the most commonly-mentioned concepts across all three sites. Greater weight was given to concepts that were mentioned in multiple program delivery sites and by different respondents; for subthemes to be considered salient, they must have been mentioned in at least two different surveys. Exemplar quotations were selected to illustrate themes and subthemes. Qualitative analysis is rarely a linear process, but the use of multiple coders for consensus and systematic charting of themes and subthemes provided order and quantification to the analysis of open-ended questions’ data.

**Results**

**Quantitative Results**

In total, the research team reviewed 52 electronic survey responses from the three sites. There were 108 total participants, for a total response rate of 48.1%. Descriptive data analysis found that all participants rated Just Roll With It Bootcamp content as “somewhat useful” (17.9%) or “very useful” (82.1%). No respondents found the material “entertaining but not useful” or “not useful.” Participants rated the seminar as “outstanding” (81.6%) or “good” (18.4%) when choosing their response to the question, “how would you rate the content, speakers, and activities presented today?”

**Qualitative Results**

Qualitative analysis of open-ended questions found that the bootcamp was generally perceived as valuable by participants (See Table 2). Coders independently recorded the number of mentions each theme or subtheme from the codebook received across the four questions; inter-rater reliability was indicated with all theme and subtheme coefficient of variations < 1. Comments across all four questions reflected emphasis on specific themes; as a result, analysis was categorized by these rather than by question. Coders found repeated comments that informed three emergent themes related to how participants responded to the seminar, including: health practices, social support, and participant quality of life or satisfaction. Comments also
informed four subthemes which included: meditation/mindfulness, nutrition, physical practice, and the seminars’ physical environment. Dividing the average of the three coders’ frequency results by the total sample size allowed the research team to calculate the estimated percentage of survey responses that mentioned the theme or subtheme.

Table 2.

Emergent Themes and Sub-themes in Qualitative Analysis of Open-ended Questions.

<table>
<thead>
<tr>
<th>Themes and Associated Subthemes</th>
<th>Coder 1</th>
<th>Coder 2</th>
<th>Coder 3</th>
<th>Estimated Percentages*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>33</td>
<td>13</td>
<td>26</td>
<td>46.2</td>
</tr>
<tr>
<td>Health Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meditation/mindfulness</td>
<td>31</td>
<td>28</td>
<td>28</td>
<td>55.8</td>
</tr>
<tr>
<td>Nutrition</td>
<td>16</td>
<td>14</td>
<td>16</td>
<td>29.4</td>
</tr>
<tr>
<td>Physical Practice</td>
<td>34</td>
<td>12</td>
<td>30</td>
<td>49.0</td>
</tr>
<tr>
<td>Social Support</td>
<td>22</td>
<td>20</td>
<td>37</td>
<td>51.0</td>
</tr>
<tr>
<td>Seminar Physical Environment</td>
<td>41</td>
<td>30</td>
<td>36</td>
<td>68.7</td>
</tr>
<tr>
<td>Participant QOL/Satisfaction</td>
<td>20</td>
<td>31</td>
<td>21</td>
<td>69.2</td>
</tr>
</tbody>
</table>

*Estimated percentages calculated by taking the average of three coders’ frequency results and dividing by the total sample size (52).

The most common responses were similar to, “I appreciated the reminder to prioritize my health,” and “I left feeling empowered to be more proactive with self-care.” The subtheme of meditation/mindfulness was frequently mentioned across all sites, (estimated percentage = 55.8%). Common responses were “I would like to spend more time on relaxation techniques,” and “very enlightening and helpful.” The subtheme of nutrition emerged from the data collected at all three sites; participants appreciated the seminar content on nutrition (estimated percentage = 29.4%), but would have liked to see less informational/factual content and more practical application opportunity. The subtheme of physical practice garnered mentions across all sites (estimated percentage = 49.0%). Multiple participants requested more movement classes, with specific appreciation for the yoga modality. Responses included “I was most impacted by the yoga session” and “I would add more movement throughout the day; I loved the yoga breakout.”

Although the bootcamps attempted to cultivate social engagement opportunities through discussion and breakout activities, military veteran participants wanted to see more group work and personalized engagement opportunities (estimated percentage = 51.0%). Common responses were “people seemed to want to talk, so spending more time in group activities would be helpful” and “it was great when we got chances to connect with one another” and “perhaps add an optional social gathering for those who wish to further discuss the topics of the day.” Participants wanted “more opportunities to connect; it went too fast.”

The subtheme related to the seminar’s physical environment was oft-mentioned in responses (estimated percentage = 68.7%). Participants repeatedly requested increased support in the physical environment for ability, pain and injury issues. Multiple respondents commented about
discomfort in seated audience settings or during active breakouts. Participant reasons for discomfort varied but were thematically similar to responses like, “with a total replacement on my left knee, yoga on the asphalt was incredibly difficult.”

The participant quality of life and satisfaction theme generated comments about perceived utility of the bootcamps’ content (estimated percentage = 69.2%). Common comments included “I will recommend it to many other veterans,” and “it was helpful to look at issues in a different light.”

Discussion

The purpose of this study was to offer a post-intervention process evaluation of one peer-led resilience program offered to military veterans of Iraq and Afghanistan at three sites in 2013. This program followed a specific protocol that emphasized peer-leadership, resiliency-building through health practices, and social support cultivation. Evaluation metrics were extremely high, as military veteran respondents reacted favorably to the day-long experience offered at three different cities in 2013. Findings agreed with the literature on cultural factors important when developing program timing, content, and delivery protocols for this priority population.

Participants found tremendous value in the seminars’ emphasis on health practices (estimated percentage = 46.2%), and individual empowerment lessons resonated. The veterans’ survey responses indicated an eagerness for more yoga and physical-practice based activities in the curriculum. The emergent theme of social support indicated the importance of peer leadership and community support cultivation when programming for veterans. Multiple participants commented on the approachability and authenticity of the presenters, all of whom were former or current military. Responses were similar to, “I appreciated the sincerity of the presenters.” The importance of choosing the right venue was underscored by the responses raising concerns about the physical environment; comments mentioned space, chair and floor comfort, and issues with outdoor temperatures. Participants mentioned having trouble with discomfort commonly, and is likely to be a recurring issue with veterans. Physical disability and impairment that lead to interference with normal activities and functioning are an often-cited problem for veterans seeking treatment with the Veterans Administration (President’s Commission on Care for America’s Returning Wounded Warriors, 2007).

Given that many veterans do not seek treatment, and those who do often do not complete their treatment, program efforts to cultivate resilience in military veterans of Iraq and Afghanistan must be proactive, participatory, and peer-led whenever possible. This multi-site process evaluation sheds light on the utility of curriculum designed with such factors in mind. When delivered by veteran peers, the self-reported program satisfaction ratings of military participants are high.

Program Recommendations

Specifically, veterans who participated in the Just Roll With It Bootcamps responded favorably to the emphasis on physical movement, stress management and mindfulness practices, and social connection opportunities built into the day, as well as to the narratives offered by peer instructors. They specifically requested maximization of yoga practice and group communication activities.

Rather than operating from a paradigm of post-incident therapeutic intervention, social workers and health programmers who wish to maximize efficacy within the confines of warrior culture must alter the conversation to one of preparation and training pre-incident. When working with military veterans, action and social cohesion are well-received. Training that emphasized choice, self-care, connection, and physical practice with mindfulness focuses on building agency and resilience and can ameliorate the problem of stresses due to deployment both before and after the tour (Ryan, 2012).

Having veterans instruct the resilience training is not optional. Creating a climate of peer-led training opens communication channels to overall stigma against self-care practices because everyone participates, the program is
led by trusted informants, and no one has to take on a patient role to participate. To train is to actively participate, and this is a wellness concept with which service members are already familiar. Framing resilience training as a way to “bulletproof your brain” renders palatable a training opportunity designed to create more effective warriors with mental endurance; framing this as promotion of combat fitness, resilience, and mental endurance renders it accessible to the military population (Ryan, 2012). Creating training protocols that emphasize connection and compassion over disassociation is important to maximize success (Department of Veterans Affairs, 2014).

By establishing mental fitness as another component of optimal combat readiness, we introduce resilience training as a crucial component of mission preparedness, and remove the stigma of such practices for post-deployment troops who may be struggling with stress illnesses of varying degrees. The message can become directive; just as Marines and soldiers learn mission essential skills and train their bodies for arduous combat, we must adopt practices designed to train and promote health in the mind. Turning to notions of empowered self-care, health promoters can emphasize capacity-building to help programs resonate with military veterans.

**Limitations**

A number of limitations are acknowledged regarding this study, including its overall exploratory nature and post-test only evaluation design. Limited in scope, the evaluation speaks only to process, not to impact or larger outcome changes. Secondary analysis of electronically-administered survey data, while providing a sample of veteran participants in the seminar, limited the scope of questions that could be asked. In order to ensure higher response rates, the instrument was kept short and fairly anonymous. No demographic data were collected, resulting in major limitations to conclusions that may be drawn. The choice to not collect demographic or behavioral identifiers was made to small seminar sizes, but with data collected in aggregate this was a limiting error. Even with a short instrument and minimal time investment required of participants, as noted in Table 1, response rates were below 50% at two of the three sites. Participant responders self-selected and data are self-reported, which may impact the data collected and could be problematic due to respondent recall or bias in self-reporting as respondents seek to respond to questions about their experience favorably. However, the use of self-report in survey-based research in the field is both accepted and common (Alvarez, Candue, & Raeside, 2012).

Another limitation is the cross-sectional nature of this study’s design, providing information from one snapshot in time from survey respondents. Such a design limits the conclusions that can be drawn, providing information about correlation, not direct causation. Cross-sectional research is respected and acceptable in the field, and is a common tool for process evaluation. It not only provides information about problem magnitude at a given survey point, but designed to go one step farther, can establish relationships between predictor variables and the health problem. Such research is commonly used as a baseline for health promoters designing programs (Lindell & Whitney, 2001; Zapf, Dormann, & Frese, 1996).

**Future Research**

Future research should expand the scope of programming beyond the in-person immersion model to emphasize a continuum of care. Adhering to a peer-leader model and working to incorporate more opportunities for adaptive physical engagement and social community-building, an expanded model could collect time series process and impact evaluation data to look at the efficacy of efforts over time. Allowing interested veteran participants to return to later seminars as peer-leaders or trained instructors is culturally-savvy and may also be indicated.

**Conclusion**

The Department of Defense and Veteran’s Administration have made combatting mental health conditions from both angles a major priority, specifically because they are a known predictor of suicide (Bossarte, 2013; Meredith et
Working with veterans and military personnel who have been subject to the stresses and traumas of the last decade of war requires a focus on agency and resilience, not simply an understanding of the scope and seriousness of mental health problems in the target group (Garcia & Petrovich, 2011).

The relationship between exposure to combat stressors and poorer post deployment health is well documented (Coughlin, 2012; Hoge, 2010). Still, some individuals are more psychologically resilient to such outcomes than others, and increasing understanding of resilience within given communities and populations may help target programming (Richardson, 2002). Veterans respond to peer-leadership, peer-interaction, and physical challenges (Foran, Adler, McGurk, & Bliese, 2012; Malmin, 2013). Ultimately, the results of this investigation provided a possible model for intervention development aiming to cultivate mental fitness and resilience in military veterans.

Acknowledgements
We would like to thank the panel of experts who reviewed the survey instrument for their feedback and support in this endeavor and Team Red, White, and Blue, who supported and hosted the 2013 Just Roll With It Bootcamps. This non-profit’s mission is to enrich the lives of America’s veterans through physical activity and social support and can be joined online for free at www.teamrwb.org.

References


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