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The Mission Continues: A Conceptual Framework and Selected Brief Screening Measures for Evaluating Civic Service and Health Outcomes Among Returning U.S. Veterans from Iraq and Afghanistan

*Monica Matthieu*

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Selecting indicators and outcome measures is an essential step in program evaluation. Given the distinctiveness and specificity of many community-based programs, the design, development, and decision-making process that transforms good ideas into a cohesive evaluation plan is rarely disseminated. However, for some national nonprofit organizations that serve vulnerable target populations, such as military service members recently returned from Iraq and Afghanistan, outcomes based accountability and program effectiveness are mission-centric. This theoretical paper aims to describe the background, framework, and implications for veterans' scholarship from a multi-year, national program evaluation of a veteran-focused program. Using The Mission Continues' Fellowship Program as an example of a summative evaluation design, we present the standardized measures selected for this civic service and leadership program with post 9/11 veterans. Consistent use of rigorous program evaluation methods and standardized measures supports the optimization and dissemination of best practices and evidence-based programs for the military and veteran populations.

*Keywords:* volunteering, surveys, program evaluation, organizations-nonprofit, veterans

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## Introduction

Volunteering, as one type of civic engagement activity focusing on service to others, contributes not only to the health of the organizations and governments that these activities influence, but also to the wellbeing of the participants. At the local level, volunteer service provides critical support for civic infrastructure, such as donating time and skills to staff mutual aid and humanitarian organizations. At the global level, civic engagement, to include civic service, voting, and grassroots activism, has persuaded governance and accountability to the needs of the citizenry as many governments have begun to listen closely to non-governmental leaders and volunteering advocates. For individuals, responding to the call to serve impacts their physical, mental, and overall wellbeing; however, finding individually appropriate volunteer placements for diverse interests and abilities in the global marketplace is challenging. This has resulted in recruitment trends that utilize

communication through the internet and social media. These efforts fostered increasing access to a more expansive volunteer pool, which includes individuals of diverse racial, ethnic, age, and ability levels, and decision-makers for many disenfranchised groups (e.g., physically disabled, older adults), which may have not been previously able to engage these leaders or service opportunities (Program, 2015).

In the United States, the most popular volunteering activities were those related to collecting and serving food, tutoring/teaching, and fundraising (Statistics, 2015). For fiscal year 2105, the volunteering rate was 24.9 percent, with about 62.6 million people who volunteered through or for an organization at least once over the 12 month period (Statistics, 2015). Volunteering rates increased significantly since the terrorist attacks of September 11, 2001 and have stayed historically high since then ([CNCS], 2007). Young adults are the age group that have increased their volunteering activity the most, rising from 13.4% in 1989 to 26.4% in 2006 ([CNCS], 2007). During and after the economic recession of 2008, rates were expected to fall again, yet instead, rose to 26.8% in 2009. This unexpected rise is accounted for by an increase in women volunteering, especially those in the 45-54 age range ([CNCS], 2011). However, the most recent report from the Bureau of Labor Statistics (2015) noted that national volunteering rates had dropped to 24.9%. The variability in the annual volunteering rates in the United States is especially sensitive to one of the main issues with volunteering, retention rates, as one out of three individuals do not continue volunteering year-to-year ([CNCS], 2007).

As a group, individuals who have served in the United States Armed Forces, or veterans, tend to have a higher volunteer retention rate. In the US, veterans are 11% more likely than non-veterans to volunteer regularly, serve an estimated 25% more hours per year in volunteer activities, as well as participate in multiple levels of civic engagement such as voting and charitable giving at higher rates than non-veterans (Tivald & Ginsberg, 2015). Veterans also join formal programs of volunteering in

their home communities in many different ways. As one example, veterans who have completed their military service to this country are serving again in government programs such as AmeriCorps and SeniorCorps, which have recruited over 27,000 veterans for services that benefit not only their communities, but also the veterans themselves. Other programs run by non-governmental and nonprofit organizations specifically target veterans, such as: The Mission Continues; Team Rubicon; Team Red, White, and Blue — among others that have emerged in the post 9/11 era.

### **The Health and Psychosocial Impact of Engaging in Service**

With high numbers of veterans participating in volunteer activities through more government and non-governmental organizations providing opportunities specifically for veterans, the correlation between health benefits and volunteering needs to be explored. Many studies have explored the link between volunteering and health and mental health outcomes, with early systematic reviews reporting benefits in overall health, life satisfaction, and lower depressive symptoms (Musick & Wilson, 2003). A more recent review of research found that volunteering had favorable effects on depression, self-esteem, and cognitive function. In addition, this review of five cohort studies showed a significantly lower mortality risk for volunteers compared to non-volunteers (Jenkinson et al., 2013). One of the main challenges of these studies noted in this systematic review (Jenkinson et al., 2013) is the large number of variables involved, in not only the types of volunteer activities, but also in the diversity of the participants themselves. Another challenge is selecting appropriate indicators and outcome measures that guide research and program evaluation on volunteering and civic service. Therefore, little is known about the impact of volunteering on veterans, individually or as a group, or via their participation in programs that specifically target veterans for non-military service. Given the distinctiveness and specificity of many community-based programs, more information is greatly needed to understand how to design a theoretically grounded evaluation. However, nonprofit managers, evaluators, and research teams rarely share the design, development, and decision-making

process that transforms good ideas into an existing cohesive evaluation plan. Nonetheless, for some national nonprofit organizations that serve vulnerable target populations, such as military service members recently returned from Iraq and Afghanistan, outcomes based accountability and program effectiveness are mission-centric. This theoretical paper aims to describe the background, framework, and implications for future research from one such multi-year, national program evaluation of The Mission Continues' Fellowship Program.

### **Case Study on The Mission Continues: A Civic Service and Leadership Program**

Established in 2007, The Mission Continues is a national 501(c)(3) nonprofit organization committed to veterans' successful transition from military service back to civilian life. It places veterans in volunteer positions with other nonprofit organizations in the veteran's home community. Post 9/11 veterans who participate in The Mission Continues' Fellowship Program, a community-based civic service and leadership program, receive stipends to complete a six-month, 20-hour a week volunteer placement at a local nonprofit organization. Veterans work closely with the staff at The Mission Continues to select a volunteer site with a mission they feel passionate about (e.g., social action projects with at-risk youth, veteran homelessness, environment and conservation, etc.) and to complete leadership activities.

### **A Conceptual Framework: Health Effects of Volunteering for Veterans**

In August 2009, an external research team led by the author developed a conceptual framework to guide this national nonprofit toward data driven decision making and to attain needed outcomes information from participants. In close collaboration with the staff of The Mission Continues, Center for Social Development, veteran advocates, and former participants in the Fellowship Program, we took one year to develop a data-driven, longitudinal, program evaluation plan. Our measurement model (See Figure 1 below) was guided by the civic service and civic engagement literature (Jenkinson et al., 2013), a biopsychosocial approach (Engel, 1977) and the

stress-diathesis theoretical model (Ingram & Luxton, 2005; McKeever & Huff, 2003). According to the Stress-Diathesis model, the presence of psychological symptoms expends energy and resources, depleting the reserves individuals may need for future challenges (Ingram & Luxton, 2005). For veterans who were exposed to trauma, loss, or injury and who are transitioning back to civilian life after completing their military service, a previous vulnerability can increase the risk of susceptibility to experiencing negative outcomes, such as stress or illness. Conversely, resources such as social support can mitigate the negative effects of stress, potentially accelerating recovery and healing, and ultimately, influencing long-term health, mental health, and wellbeing.

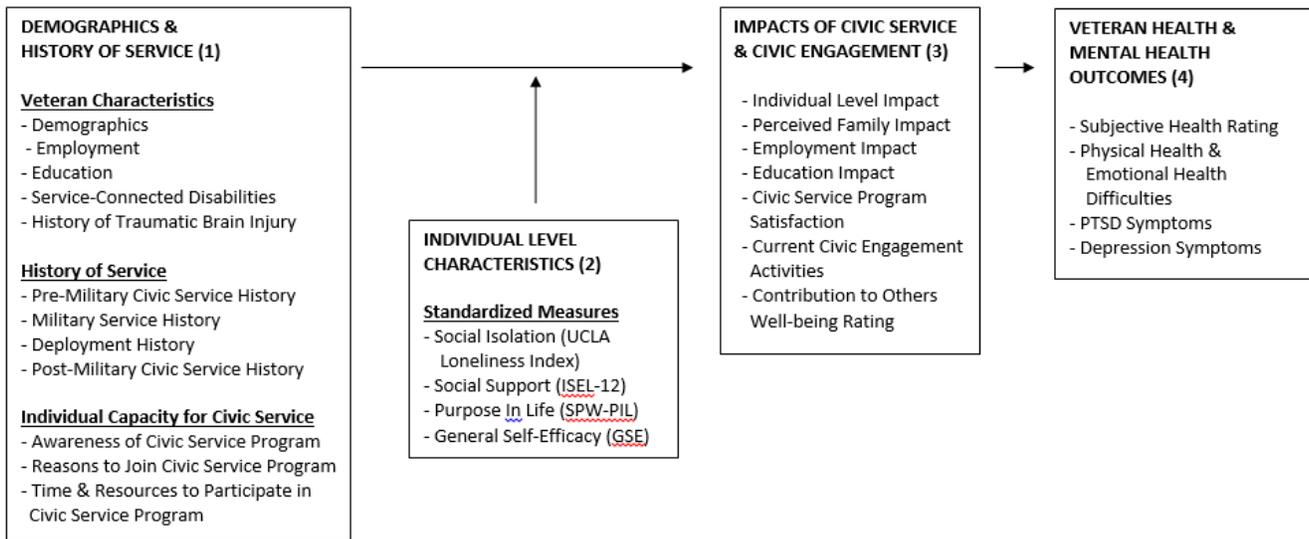


Fig. 1. A Conceptual Framework and Selected Brief Screening Measures for Evaluating Civic Service and Health Outcomes Among Returning U.S. Veterans from Iraq and Afghanistan

## Structure of the Brief Screening Measures Used For Evaluating Civic Service and Health Outcomes Among Returning U.S. Veterans from Iraq and Afghanistan

As noted earlier, our goal is to describe measures of civic service and health and mental health outcomes used to assess post 9/11 veterans who participated in a six-month civic service and leadership program. The rationale for presenting our measures is based on fielding requests from

other veteran-focused, civic service, and/or leadership programs who wish to develop evaluation plans for their programs to review our conceptual framework and measures for ideas, guidance, or for examples of standardized outcome measures to adopt. For this summative evaluation, we used a pre and post group design with standardized measures assembled into a survey to assess outcomes of participating in this veteran-focused civic service and leadership program. Our measurement model (see Figure 1) has four sections, parallel to the four sections of the survey, and includes various standardized measures that assess individual characteristics (see Table 1) and veteran health and mental health (see Table 2).

Section 1 included *Demographics and History of Service*. For the first subsection, *Veteran Characteristics*, we assessed a variety of demographics and social factors to include age, gender, race, ethnicity, marital status, parental status, living situation, geographic location of residence, urbanicity, employment, education, disability, and income.

In the *History of Service* subsection, in addition to a veteran's pre and post military and civic service history, we asked about deployment history, any service-connected disabilities, and whether the veteran had a history of a Traumatic Brain Injury. Several items were adapted from AmeriCorps Survey ([CNCS], 2008) to assess civic service activities prior to, during and following their period of volunteer service with The Mission Continues. Questions regarding the participant's life and service activities before their military service, specifically, the frequency, duration, number, and type of organizations were used. In order to assess civic service in the period of time prior to joining the military, participants were asked: "Did you ever volunteer/do public service before joining the military?" with dichotomous (i.e., yes, no) response options.

Military experience was measured using 13 questions adapted from the All-Volunteer Force (Yonkman & Bridgeland, 2009) questionnaire. These questions queried for information on the participant's military history of service on active duty and/or reserve duty, total years of service on

active and/or reserve duty, branch of service, rank, pay grade, military occupational specialty, deployment theaters, number of deployments and length of time from last deployment. As one example, deployment status was assessed using the following question “Did you serve on an overseas deployment for which you received hazardous duty pay?” with the categorical response options: (1) no; (2) yes, Operation Iraqi Freedom; (3) yes, Operation Enduring Freedom; (4) yes, both; (5) yes, other, followed by a fill in the blank option. Examples of the two questions that assessed the total amount of disability used by the Department of Defense and Department of Veterans Affairs disability ratings for physical and mental health conditions include: (1) “Do you have a DoD military disability rating? If so, what is the total percent? (2) Do you have a VA disability rating? If so, what is the total percent?” with response options ranging from not applicable, none, 0% to 100%. As a final subsection, *Individual Capacity for Civic Service*, we assessed the knowledge, skills, and abilities of veterans and what they need to participate in civic service. In this way, we asked how the veteran became aware of the civic service program and their interest in joining The Mission Continues Fellowship Program.

In section 2, we assessed *Individual-Level Characteristics*, those variables that are mediating factors drawn from stress/diathesis theory that differentially impact the health, mental health, and wellbeing outcomes of veteran participants. Based on our conceptual framework, we identified four domains—social isolation, social support, psychological wellbeing, and self-efficacy—critical to influence our outcomes (See Table 1). We assessed each using standardized assessment instruments that were publically available and rigorously tested. Each of the domains and the psychometric properties of the measures are reviewed separately in the section that follows and is outlined in Table 1 below.

**Table 1: Standardized Measures of Individual Characteristics of Veterans**

Domain	Construct(s)	Measure/Citation	Website/Access
Social Isolation	Loneliness	UCLA Loneliness Scale (Version 3) (Russell, 1996)	<a href="http://my.ilstu.edu/~jhkahn/psy442/ucla.pdf">http://my.ilstu.edu/~jhkahn/psy442/ucla.pdf</a>
Social Support	Appraisal, Belonging, and Tangible Aid Subscales	Interpersonal Support Evaluation List (ISEL-12) (Cohen & Hoberman, 1983)	<a href="http://www.psy.cmu.edu/~scohen/isel.html">http://www.psy.cmu.edu/~scohen/isel.html</a>
Psychological Wellbeing	Purpose in Life Subscale	The Scales of Psychological Well-Being (Ryff & Keyes, 1995)	Free upon receipt of file from author. Send request, intended use, results, and journal citations to: <a href="mailto:cryff@wisc.edu">cryff@wisc.edu</a>
Self-Efficacy	Perceived self-efficacy	General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995)	<a href="http://userpage.fu-berlin.de/health/selfscal.htm">http://userpage.fu-berlin.de/health/selfscal.htm</a>

*Social isolation* is defined by both objective and subjective factors. Objective isolation is assessed using indexes of marital status, friendship networks, religious affiliation, and civic organization membership. Subjective perception of isolation, or loneliness, is perhaps the more salient predictor of negative physical, mental, and behavioral outcomes of social isolation. While objective isolation may contribute to perceived isolation, genetic factors, family history, cultural influences, physical disabilities, and discrepancies between actual and desired relationships are also influential to feelings of loneliness. Additionally, many solitary people do not report feelings of loneliness, while some highly connected individuals report high levels of loneliness. Without intervention, perceived social isolation contributes to higher mortality rates, poorer cognitive functioning, less emotional wellbeing, and negative social behavioral outcomes (Hawkley & Cacioppo, 2010).

The UCLA Loneliness Scale (Ver. 3) (Russell, 1996) is the most widely used 20-item questionnaire assessing perceived social isolation. The survey prompts participants to describe how

often they feel the way described in each question. Examples of questions include, “How often do you feel that there is no one you can turn to?” and “How often do you feel shy?” The response format is a four-point Likert scale ranging from 1 (Never) to 4 (Always). Total scores are tabulated by summing the response numbers, with higher numbers (maximum=80) indicating greater degrees of loneliness, and lower numbers (minimum=20) reflecting low loneliness. Negatively-keyed items include items 1, 5, 6, 9, 10, 15, 16, 19, and 20 which require reverse scoring for data analysis.

Conceptualizations of *social support*, or social relationships, vary across the literature and include both structural and functional definitions. Structural support measures evaluate the existence, extensiveness, and interconnectivity of an individual’s social relationships (e.g. number of siblings); while measures of functional support assess the role these social relationships play in positively influencing physical and mental health outcomes (e.g. by providing emotional or informational support) (Uchino, Cacioppo, & Kiecolt-Glaser, 1996). It has been proposed that structural supports operate under a “main effect” model, promoting psychological and somatic wellbeing regardless of situational stressors, while functional supports operate as a “stress buffering” mechanism, acting as a protective factor in times of stress (Kawachi & Berkman, 2001). Significant to surveys of veteran populations, gender is a moderating factor in the social support-health pathway. Social support tends to be more beneficial for men, who are burdened less by providing support to others than women (i.e. the so-called “support gap”), and are less emotionally impacted by the stresses of others in their social networks (Kawachi & Berkman, 2001).

The Interpersonal Support Evaluation List short form (ISEL) (Cohen, Mermelstein, Kamarck, & Hoberman, 1985) is a 12-item scale assessing social support using three subscales: appraisal, belonging, and tangible aid. The response format is a four-item Likert scale ranging from Definitely False, Probably False, Probably True, to Definitely True. Summed scores range from 12 to 48 with higher scores indicating a higher degree of perceived social support. One example of

tangible social support is: “If I was stranded 10 miles from home, there is someone I could call who could come and get me.” To score, sum all items 1-12 and reverse score items 1, 2, 7, 8, 11, and 12 for data analysis.

*Psychological wellbeing* is a theoretically grounded construct of mental wellness that is comprised of six components. These include: self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relationships with others (Ryff, 1989a, 1989b). Each of these six components is measured with a subscale, which provides critical insight on the multi-dimensional nature of wellness. However, we focused on only one subscale—purpose in life.

Purpose in Life (PIL) (Ryff, 1989a) is a 14-item subscale of the Scales of Psychological Wellbeing (Ryff & Keyes, 1995) that assesses direction, meaning, and purpose in life. The response format includes a five-item Likert scale ranging from Strongly Disagree, Disagree, Neutral, Agree, to Strongly Agree. Summed scores range can range from 14 to 84. Higher scores indicate strong life goals or aims, a sense of direction and a sense that past and present life experiences hold meaning and purpose. Lower scores indicate few goals or aims and absence of a sense of direction with a notion that life lacks purpose and meaning. As one example: “I have a sense of direction and purpose in life.” All items are summed with the following items reverse-scored: 2, 3, 5, 6, 7, 11, and 14 for data analysis.

The construct of *self-efficacy* traces its origins to social cognitive theory. This theory emphasizes perceived self-efficacy, or the belief in one’s ability to achieve a desired outcome. Beyond the common, task-orientated conception of self-efficacy, however, some researchers have conceptualized a general self-efficacy, defined as an individual’s belief about his or her capacity to perform under or cope with a range of stressors or challenges. Cross-cultural studies have demonstrated that general self-efficacy is a universally applicable construct. Self-efficacy plays a regulatory role in an individual’s performance health promoting behaviors, as one’s belief in the

capacity to perform the behavior influences whether that behavior is undertaken. Similarly, self-efficacy promotes a positive mental state that may reduce anxiety when confronted with stressors, and enhance successful problem-solving (Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005).

The General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995) is a well-validated, 10-item scale designed to assess perceived self-efficacy as related to both minor daily stressors and major life events. Responses are made on a four-point scale ranging from: (1) Not at all true; (2) Hardly true; (3) Moderately true; to (4) Exactly true. Responses are summed with total scores ranging from 10 to 40. Higher scores indicate a higher sense of self-efficacy and higher coping abilities as well as adaptation after experiencing stressful life events. An example of a question is, “I can always manage to solve difficult problems if I try hard enough.”

In section three, *Impacts of Civic Service and Civic Engagement*, we assessed the benefits and challenges of performing civic service at the individual, family, community levels and their views on participation in civic engagement activities. These questions, only assessed on the post-survey, relate to individual level impacts, perceived family impacts (Morrow-Howell, Hinterlong, Rozario, & Tang, 2003), employment and education impacts ([CNCS], 2008), as well as civic service program satisfaction specifically targeted to their recent experience in The Mission Continues Fellowship program. Finally, this section ends with a more generic assessment of their current civic engagement activities ([CNCS], 2008) and their perceived contribution of their impact to others wellbeing.

**Table 2: Veteran Health & Mental Health Outcome Measure**

Domain	Construct	Measure/Citation	Website/Access
Health Status	Subjective Health, Physical and Emotional Difficulties	General health status questions adapted from Post-Deployment Health Reassessment (PDHRA) Program (DD Form 2900)	<a href="http://www.dtic.mil/whs/directives/forms/eforms/dd2900.pdf">http://www.dtic.mil/whs/directives/forms/eforms/dd2900.pdf</a>

Mental Health Status	Post-Traumatic Stress Disorder Symptoms	Primary Care PTSD Screen (PC-PTSD) (Prins et al., 2003)	<a href="http://www.ptsd.va.gov/professional/pages/assessments/pc-ptsd.asp">http://www.ptsd.va.gov/professional/pages/assessments/pc-ptsd.asp</a>
Mental Health Status	Depression Symptoms	Patient Health Questionnaire-2 (PHQ-2) (Kroenke et al., 2003)	<a href="http://www.cqaimh.org/pdf/tool_phq2.pdf">http://www.cqaimh.org/pdf/tool_phq2.pdf</a>

Lastly, in section 4, we assessed the veteran’s *Health and Mental Health Outcomes*. These outcomes include assessments of the health and mental health of veteran participants in the program related to subjective health status, physical health and emotional health difficulties, Post-Traumatic Stress Disorder (PTSD), and depressive symptoms (See Table 2). The Post Deployment Health Readiness Assessment (PDHRA- DD Form 2900, January 2008) (Department of Defense, 2008) is a widely used screening questionnaire used to assess the state of health of military members deployed in support of military operations. Screening questions selected from the PDHRA were used to measure subjective health and the impact of physical and emotional difficulties on health. All questions were assessed for past month.

The Primary Care PTSD Screen (PC-PTSD) (Prins et al., 2003) is a four-item screening measure assessing the presence of the following Diagnostic and Statistical Manual, IV-TR ([APA], 2000) PTSD symptoms in the past month: re-experiencing, avoidance, numbness, and arousal. Respondents indicated “yes” or “no” to each item, and scores ranged from 0 to 4. A cut-off score of ≥ 2 designated PTSD symptoms of clinical significance. All questions were assessed for the past month. Positive screens indicate presence or absence of symptoms of PTSD.

Depressive symptoms were assessed using the Patient Health Questionnaire-2 (PHQ-2) (Kroenke, Spitzer, & Williams, 2003) which is a two-item screener composed of items one and two from the PHQ-9, a validated, shorter version of the full-length PHQ (Kroenke, Spitzer, & Williams,

2001). The PHQ-2 inquires as to the frequency of symptoms of anhedonia and hopelessness for the past month following the stem question, "Over the past month, have you been bothered by the following problems?" The question was followed by response options scored on a 5 point scale: (1) Not at all, (2) Few or several days, (3) More than half the days, (4) Nearly every day. Scores range from 0 to 6. Higher scores indicated greater depression. A cut-off score of  $\geq 3$  indicates clinically significant depressive symptoms. Positive screens indicate presence or absence of symptoms of Major Depression.

### **Implications for Veterans Studies Scholarship**

Based on eight years of experience working with The Mission Continues Fellowship Program to design and to implement a multi-year national program evaluation and the proliferation of new veteran-focused nonprofits serving the newest cohort of post 9/11 veterans, we offer implications for scholarship in veterans studies. As scholars of veterans studies the application of this theoretical article is grounded in a call for academically and research trained scholars to invest in, and to collaborate with, our own local veteran-focused nonprofit organizations.

As scholars, we have the knowledge, expertise, and skills to provide guidance to nonprofit managers and program staff on the importance of theory and strong measurement in program evaluation planning as their focus tends to be on fundraising and program implementation. Beyond guidance, a best practice with real world implications is to systematically pair veteran studies scholars with local veteran nonprofits, to aid in collaboratively developing rigorous evaluation plans that would support program implementation, program expansion, outcomes accountability, and fundraising. While the agency may initially benefit from our service and academic contributions, other mutual benefits from this type of partnering may be to negotiate an area of research that advances scientific inquiry, garners new grant funding, and provides publications that both parties can use in marketing and dissemination.

Also given our interest in veterans studies, this also typically means that we, as scholars, have a population specific interest. This narrowed population focus may allow us to more readily identify, access, and connect our local veteran-focused organizations to other veteran scholars in other disciplines beyond our expertise and to veteran-specific academic resources. In this author's experience, the most needed resources that nonprofit organizations request is knowledge about: (1) University or public library holdings for materials that are accessible by subscription only (e.g., Cochrane Library systematic reviews on treatments for PTSD, articles published journals such as *Military Medicine* and the *Journal of Traumatic Stress*, and databases of measures such as the Health and Psychosocial Instruments); and (2) other publically available systematic reviews, trauma specific databases, and clinical measures (e.g., from the Department of Veterans Affairs Evidence-based Synthesis Program found at <http://www.hsrd.research.va.gov/publications/esp/>, the Published International Literature on Traumatic Stress (PILOTS) database found at <http://www.ptsd.va.gov/professional/pilots-database/listed-articles.asp>, and a list of measures at the National Center for PTSD [http://www.ptsd.va.gov/professional/assessment/all\\_measures.asp](http://www.ptsd.va.gov/professional/assessment/all_measures.asp), respectively. While these and other resources are germane to our scholarly environment, they are less so for the agency, yet are critically important for program evaluation planning with them.

Finally, this call to action is for veterans studies scholars to be the synthesizer of information and resources for our nonprofit partners who implement veteran-focused programs. Our community partners at The Mission Continues continually expressed a need for fast, credible, and high quality scientific information that was distilled and applied to their unique mission, population, and program. Generally speaking, this focused on our selecting indicators and outcome measures as an essential first step in our collaborative meetings related to program evaluation planning. Yet, it was against our nature to just design the evaluation devoid of their expertise and involvement, therefore, to guide our efforts with a common language and purpose, we shared the Defense Center of Excellence Program

Evaluation Guide, with the program staff at The Mission Continues to expand their knowledge base on evaluation, which can be found at [http://www.dcoe.mil/About\\_DCoE/Program\\_Evaluation.aspx](http://www.dcoe.mil/About_DCoE/Program_Evaluation.aspx).

While we provided this educational material on program evaluation planning, theory and measures, the staff aided us in developing special considerations in administering these survey instruments to post 9/11 veterans based upon their expertise. They recommended decreasing the administrative burden on participants while balancing the end goal of capturing great data. As such, our measurement model utilized standardized screening instruments that were psychometrically strong, publically available, and familiar to the veteran community (e.g., PDHRA) instead of longer structured clinical assessments. We also ensured that we used items found in the civic engagement and civic service literature and from surveys from national programs on volunteering. One caveat is that science is always evolving, and we learned the value of using the most up to date measures available. Yet even still, the field of Traumatic Brain Injury evolved significantly over the past few years. Additionally, finding relevant measures that are up to date with *DSM V* can be an ongoing challenge.

In summary, by collaborating with veteran-focused nonprofit organizations, veteran scholars can provide needed expertise, resources, and tailored military and veteran specific information to our local community partners, that can provide opportunities to advance the science of veteran studies. Given the proliferation of new nonprofit organizations that administer a variety of well-intentioned veteran-focused programs, rigorous program evaluation as well as longitudinal studies to determine what is “successful” using scientific efficacy and effectiveness studies as a guide, is greatly needed.

### **Conclusions**

This paper described the background, framework, and implications from a multi-year, national program evaluation of The Mission Continues’ Fellowship Program. Initially, we built a conceptual framework that drew from biopsychosocial and stress-diathesis models. Brief

standardized screening measures were used to assess the health and mental health outcomes of participating in this veteran-focused civic service and leadership program with post 9/11 veterans. Finally, implications for scholarship on veterans' studies include decreasing the administrative burden to veteran participants and maximizing the rigor of the evaluation plan by using theoretically driven program evaluation and standardized measures. Consistent use of rigorous program evaluation methods and standardized measures supports the optimization and dissemination of best practices and evidence-based programs for the military and veteran populations.

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Monica M. Matthieu, LCSW, PhD  
Assistant Professor, School of Social Work, College for Public Health and Social Justice  
Saint Louis University  
&  
Central Arkansas VA Health Care System

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### References

[APA]. (2000). *Diagnostic and statistical manual-text revision (DSM-IV-TR, 2000)*. Washington, DC:

American Psychiatric Association.

[CNCS]. (2007). *The health benefits of volunteering: A review of recent research*. Washington, DC:

Corporation for National and Community Service.

[CNCS]. (2008). *Still Serving: Measuring the Eight-Year Impact of AmeriCorps on Alumni*. Washington,

D.C.: Corporation for National and Community Service.

- [CNCS]. (2011). *Strategic Plan 2011-2015*. Washington, DC: Corporation for National and Community Service.
- Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. In I. G. Sarason & B. R. Sarason (Eds.), *Social support: Theory, research, and applications* (pp. 73–94). The Hague, Holland: Martinus Nijhoff.
- Department of Defense, U. S. (2008). *Post-deployment health re-assessment (DD Form 2900)*. Washington, DC: U.S. Government Printing Office.
- Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. *Science*, *196*(4286), 129–136. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/847460>
- Hawley, L. C., & Cacioppo, J. T. (2010). Loneliness matters: a theoretical and empirical review of consequences and mechanisms. *Annals of Behavioral Medicine*, *40*(2), 218–227.  
doi:10.1007/s12160-010-9210-8
- Ingram, R. E., & Luxton, D. D. (2005). Vulnerability-stress models. In B. L. Hankin & J. R. Z. Abela (Eds.), *Development of psychopathology : a vulnerability-stress perspective* (pp. x– 510). Thousand Oaks, CA.: Sage Publications.
- Jenkinson, C. E., Dickens, A. P., Jones, K., Thompson-Coon, J., Taylor, R. S., Rogers, M., . . . Richards, S. H. (2013). Is volunteering a public health intervention? A systematic review and meta-analysis of the health and survival of volunteers. *BMC Public Health*, *13*, 773.  
doi:10.1186/1471-2458-13-773
- Kawachi, I., & Berkman, L. F. (2001). Social ties and mental health. *Journal of Urban Health*, *78*(3), 458–467. doi:10.1093/jurban/78.3.458
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: validity of a brief depression severity measure. *Journal of General Internal Medicine*, *16*(9), 606–613. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11556941>

- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2003). The Patient Health Questionnaire-2: validity of a two-item depression screener. *Medical Care, 41*(11), 1284–1292.  
doi:10.1097/01.MLR.0000093487.78664.3C
- Luszczynska, A., Gutiérrez-Doña, B., & Schwarzer, R. (2005). General self-efficacy in various domains of human functioning: Evidence from five countries. *International Journal of Psychology, 40*(2), 80–89.
- McKeever, V. M., & Huff, M. E. (2003). A diathesis-stress model of posttraumatic stress disorder: Ecological, biological, and residual stress pathways. *Review of General Psychology, 7*(3), 237–250.  
Retrieved from <http://dx.doi.org/10.1037/1089-2680.7.3.237>
- Morrow-Howell, N., Hinterlong, J., Rozario, P. A., & Tang, F. (2003). Effects of volunteering on the well-being of older adults. *The Journals of Gerontology. Series B, Psychological Sciences and Social Sciences, 58B*(3), S137–S145. Retrieved from  
<http://www.ncbi.nlm.nih.gov/pubmed/12730314>
- Musick, M. A., & Wilson, J. (2003). Volunteering and depression: the role of psychological and social resources in different age groups. *Social Science & Medicine, 56*(2), 259–269. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/12473312>
- Prins, A., Ouimette, P., Kimerling, R., Cameron, R., Hugleshofer, D., Shaw-Hegwar, J., . . . Sheikh, J. I. (2003). The Primary Care PTSD Screen (PC-PTSD): Development and operating characteristics. *Primary Care Psychiatry, 9*, 9–14.
- Program, United Nations Volunteer. (2015). *2015 State of the World's Volunteerism Report: Transforming Governance*. Germany: United Nations Volunteer Program.
- Russell, D. W. (1996). UCLA Loneliness Scale (Version 3): reliability, validity, and factor structure. *Journal Personality Assessment, 66*(1), 20–40. doi:10.1207/s15327752jpa6601\_2

- Ryff, C. D. (1989a). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personal Social Psychology, 57*(6), 1069–1081.
- Ryff, C. D. (1989b). In the eye of the beholder: views of psychological well-being among middle-aged and older adults. *Psychology and Aging, 4*(2), 195–201. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/2789747>
- Ryff, C. D., & Keyes, C. L. (1995). The structure of psychological well-being revisited. *Journal of Personal and Social Psychology, 69*(4), 719–727. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/7473027>
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35–37). Windsor, UK: NFER-NELSON.
- Statistics, Bureau of Labor (2015). *Volunteering in the United States, 2015*. Washington, DC: Bureau of Labor Statistics.
- Tivald, J., & Ginsberg, K. (2015). *2015 Veterans Civic Health Index*. Washington, DC: Got Your 6.
- Uchino, B. N., Cacioppo, J. T., & Kiecolt-Glaser, J. K. (1996). The relationship between social support and physiological processes: a review with emphasis on underlying mechanisms and implications for health. *Psychological Bulletin, 119*(3), 488–531. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/8668748>
- Yonkman, M., & Bridgeland, J. (2009). *All Volunteer Force: From Military to Civilian Service*. Washington, DC: Civic Enterprises.