THESIS

THE RELATIONSHIPS BETWEEN SOCIAL AND COMMUNITY PARTICIPATION, MEANINGFUL ACTIVITY PARTICIPATION, AND SOCIAL SUPPORT FOR STUDENT SERVICE MEMBERS/VETERANS

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ABSTRACT

THE RELATIONSHIPS BETWEEN SOCIAL AND COMMUNITY PARTICIPATION,
MEANINGFUL ACTIVITY PARTICIPATION, AND SOCIAL SUPPORT FOR STUDENT
SERVICE MEMBERS/VETERANS

Student service members/Veterans (SSM/V) represent a growing group of students on college campuses. Despite their increased presence on campuses, there is currently little research concerning the development and maintenance of social support, a crucial factor of college integration, for this population. Limited research suggests that SSM/V struggle to integrate into higher education, develop social relationships with peers, and succeed academically. The purpose of the present study was to assess the relationship between social and community participation, meaningful activity participation, and social support. The present study also sought to present psychometric evidence for a new assessment of social and community participation, The Veterans' Social and Community Participation Assessment (VSCPA). Results indicate that increased frequency of social and community participation, meaningful activity participation, and social support are positively correlated. Results also demonstrate the negative impact of service-related trauma on social and community participation, meaningful activity participation, and social support. Results highlight the criticality of social and community participation to meaningful activity participation and the development of social support. Implications for professionals working with SSM/V transitioning into higher education are addressed.

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INTRODUCTION

Student Service Members/Veterans in Higher Education

Student service members/Veterans (SSM/V) consist of 3.1% of all undergraduates in U.S. colleges and universities, with this number anticipated to rise as some of the two million Veterans from Iraq and Afghanistan are expected to return home and use expanded educational benefits from a post-9/11 GI Bill (Durdella & Kim, 2012). Many Veterans face mental health challenges upon returning home, complicating the transition into higher education. Approximately 1 in 3 of the 1.64 million U.S. military personnel deployed for Operation Enduring Freedom (OEF) or Operation Iraqi Freedom (OIF) will experience post-traumatic stress disorder (PTSD), depression, or traumatic brain injury (TBI) (Barry, Whiteman, & MacDermid, 2012; Plach & Sells, 2013). While there is a long history of Veteran's education benefits and the presence of Veterans on college campuses, there is a lack of research pertaining to SSM/V in higher education (McBain, Kim, Cook, & Snead, 2012). Not much is known about the transition from the military to postsecondary education, or the extent to which SSM/V are engaged academically and socially on college and university campuses (Kim & Cole, 2013). With SSM/V enrollment in higher education on the rise, it is important to have a greater understanding of the challenges faced and opportunities presented for this population in order to help them successfully transition and persist in college.

Social Support

Developing interpersonal relationships with peers on campus can be particularly challenging and stressful for SSM/V (Whiteman, Barry, Mroczek, & Wadsworth, 2013). Mental health conditions commonly seen in Veterans, such as PTSD, are negatively associated with

social support, thereby posing a potential barrier to academic success and community reintegration (Eakman, Shelly, & Henry, 2016). Whiteman et al. (2013) have indicated that previous research has not fully examined how social support is formed by SSM/V. Helping combat veterans adjust to life in the community and participate in major life roles is a Veteran's Affairs (VA) priority, and it is important to explore the nature of Veterans' community reintegration (Resnik et al., 2012). In order to fill this current gap in knowledge, the present study seeks to explore the relationships between social and community participation, meaningful activity participation, and social support in SSM/V.

Social support has been defined as the availability of people who care about us or love us; it has also been defined as having social needs, such as affection, esteem, and belonging, met through interactions with others (Grant-Vallone et al., 2003-2004; Thoits, 1982). Social support is generally broken down into two categories: emotional and instrumental support. Emotional support consists of another person demonstrating empathy and understanding, while instrumental support generally is described in terms of provision of a good or service, such as help with work, family responsibilities, or advice (Thoits, 1982; Whiteman et al., 2013).

Social support is of crucial concern for student retention and commitment to college. Perceived social support is associated with students' positive perceptions of campus life, contributing to social and academic adjustment (Grant-Vallone et al., 2003-2004). Service-related trauma, such as PTSD, can negatively impact the ability for SSM/V to develop social support with peers and succeed academically (Barry et al., 2012; Whiteman & Barry, 2013). Furthermore, social support is a salient predictor of adjustment among students with disabilities (Murray, Lombardi, Bender, & Gerdes, 2013) and has been found to predict college students' grade-point average (Robbins et al., 2004). Since SSM/V, especially those with service-related

trauma, are an at-risk population in terms of developing social supports, and social supports are linked to academic success, SSM/V are likely to have greater difficulties succeeding in higher education.

Social support may be of unique benefit to SSM/V in particular. Whiteman et al. (2013) found that SSM/V who report a higher level of social support experienced PTSD symptoms less frequently. Further, SSM/V have been reported to be less likely to participate in co-curricular, relaxing, or socializing activities than non-Veteran students (Kim & Cole, 2006). Given that social support is associated with community integration in college and that SSM/V may struggle with social support, the development and maintenance of social support may be a crucial part of Veterans adjusting to university life. What is currently unknown, however, is how to best support SSM/V with developing social support, necessitating further research into concepts linked to the development of social support in this population.

Activity and Participation

The International Classification of Disease and Functioning (ICF) was developed by the World Health Organization (WHO) to be the international standard for the classification of health (Sandberg, Bush, & Martin, 2009). Important to this classification of health is an individual's identified participation in activities they need or want to do. Participation is defined in the WHO-ICF as involvement in a life situation, while activity is defined as the execution of a task or action by an individual (WHO, 2001). The WHO (p. 16d, 2001) concedes that it is difficult to clearly distinguish between activity and participation, and states that these concepts may be interchangeable. As such, these two terms will be used interchangeably throughout the paper. Nonetheless, the taxonomic language used to describe the dimensions of activity and participation in the WHO-ICF provides a comprehensive lens for describing the progression of

Veteran community reintegration, making the WHO-ICF an appropriate framework upon which to base an assessment of social and community participation of SSM/V (Resnik et al., 2012; Sandberg et al., 2009).

Two indicators of participation will be addressed in order to better understand how participation is relevant to SSM/V: objective participation and subjective participation. Objective participation is defined as how often an individual engages in an activity and how often.

Objective participation therefore reflects the frequency and types of activities in which someone participates. Subjective participation refers to the meaning or importance an individual may attach to a life situation or activity (Coster & Khetani, 2008; Khetani & Coster, 2014). In the current study, objective participation data will allow us to understand the frequency and types of social and community participation activities SSM/V participate in. Subjective participation will be assessed to understand the extent to which engaging in everyday activities is personally meaningful or satisfying to SSM/V. Both types of participation will be assessed in this study together to increase the understanding of their relationship with social support.

Meaningful Activity Participation

Research indicates that SSM/V with service-related trauma are a population at high risk for lower levels of social support and lower levels of engagement in meaningful activities compared to non-Veteran students (Eakman et al., 2016). Meaningful activity can be defined as a breadth of positive subjective experiences composed of unique and identifiable qualities associated with someone's participation in his/her day-to-day activities (Eakman, 2013). The experience of meaning in activities reflects one's progress towards achieving valued goals, expression of personal interests, and experiences of control, creativity, competence, and self-efficacy. Further, meaningful activities may positively influence one's motivation to engage in

future action, in part, through providing a sense of pleasure arising from personal competence and demonstrating an individual's value and worth within his/ her social roles (Eakman, 2011, 2015; Wilcock & Townsend, 2014). Speicher, Walter, and Chard (2014) found that a combination of deficits (PTSD, mild traumatic brain injury [mTBI], and depression) lowered the ability of SSM/V to successfully engage in once meaningful and important activities, and these SSM/V likely do not experience the full richness of meaningful activity participation (Eakman et al., 2016). Ultimately, participation in meaningful activities contributes to one's sense of life meaning and purpose, thereby contributing to the development and maintenance of personal well-being (Dutra, Eakman, & Schelly, 2016; Eakman, 2013; Matuska & Christiansen, 2008).

Meaningful activity is a concept that is distinct from social and community participation, yet together they share important attributes as part of their assessment. Most notably, the concept of doing intrinsically links meaningful activity to social and community participation. That is, meaningful activity is concerned with the positive subjective experiences that arise from doing or engaging in day-to-day activities (Eakman, 2013; King, 2004). As well, social and community participation is concerned with doing, though its focus is commonly, though not always, directed at assessing the frequency and breadth with which someone is engaged in a range of culturally-relevant activities. Meaningful activity participation can be understood both objectively and subjectively, as objective participation is also concerned with assessing frequency, while subjective participation can be associated with the positive subjective experiences one experiences while engaging in day-to-day activities (Coster & Khetani, 2008; Khetani & Coster, 2014).

Meaningful activity, as well, considers positive experiential qualities that are clearly social in nature, such as caring for others and participating in activities valued by others, and

therefore has an expected positive relationship with social and community participation (Eakman, 2013). However, Eakman et al. (2016) found that PTSD and depression, two mental health conditions that many SSM/V face, were negatively associated with social support and meaningful activities. As participation in social groups allows people to form personal relationships and gain a sense of belonging, meaningful activity and social and community participation are likely to be intimately associated with garnering and maintaining social support (King, 2004).

Social Participation and Community Participation

Social participation and community participation are two complimentary perspectives from which community reintegration can be understood. Social and community participation can be considered a subset of community reintegration. Community reintegration is concerned with participation in life roles, particularly those pertaining to life at home, in the community, and social roles. Researchers in community reintegration are focused on broadly measuring community reintegration challenges experienced by a larger population of Veterans (Resnik & Allen, 2007; Resnik et al., 2012). However, as this study focuses on social and community participation as a subset of community reintegration, the focus of the present study is narrower than the broader view of community reintegration. This study aims to examine activities specific to SSM/V in higher education; as such, there will be greater emphasis on assessing community, civic, and social roles specifically. This differs from Resnik et al. (2012), who are concerned with community reintegration for all Veterans, and therefore have a broader assessment.

Social participation has been defined as involvement in activities involving social interactions with others (Khetani & Coster, 2014). Socializing with family or friends or engaging in an affectionate physical relationship are examples of social participation. Supportive

relationships with friends and peers increase as frequency of contact increases (Whiteman et al, 2013), suggesting that frequency of social participation helps to facilitate social relationships and supports.

Community participation has been defined as involvement in activities that are intrinsically social and occur either outside the home, or in the home as part of a nondomestic role. For example, while this definition emphasizes connection to the community, it does not require physical presence in the community, as working on civic tasks from home or hosting friends in one's home would also be community participation (Chang, Coster, & Helfrich, 2013). Other examples of community participation are: going to church or a religious activity, working, or volunteering. Because community participation is intrinsically social, there is a noticeable overlap between social participation and community participation, suggesting that these two concepts are mutually congruent approaches to understanding participation.

Little research on Veterans in higher education focuses specifically on social and community participation. From the available literature, it is clear that many SSM/V have identified that engaging in social and community participation activities can be difficult within the campus community. For example, *From Soldier to Student II*, (McBain et al., 2012), a report providing information on campus programs and university supports available to SSM/V, identified that one of the most common challenges for SSM/V is social acculturation within the campus community. This report gives insight to the types of academic and co-curricular supports universities have in place for SSM/V, though it does not highlight the frequency or types of specific activities that SSM/V engage in on campus. Another report, *Student Veteran Engagement in College Life* (Kim & Cole, 2013) highlighted that SSM/V are less likely to invest time in activities that are not central to fulfilling class requirements compared to their non-

Veteran peers, but that they would greatly benefit from engaging in activities outside of class (Kim & Cole, 2013). This suggests that SSM/V could potentially benefit from engaging in social and community participation activities, yet they may have difficulty engaging in these activities within the campus community. While this report identified activity items that SSM/V engage in more than 10 hours per week, it does not specifically assess social and community participation activities.

From Soldier to Student II (McBain et al., 2012) and Student Veteran Engagement in College Life (Kim & Cole, 2013) offer important insights to the types of programs campuses have in place to support SSM/V, as well as SSM/V activity engagement in college. However, neither of these reports uses the WHO-ICF as a framework to organize and identify activities relevant to SSM/V. See Table 1 for WHO-ICF coverage areas of Kim and Cole (2013) and McBain et al. (2012). As these reports do not specifically assess social and community participation or meaningful activity participation of SSM/V, there is a need to assess a broader range of participation domains to have a better understanding of SSM/V engagement in college, as to better understand the development and maintenance of social support in this population.

Table 1 Current Research on Veteran Activity Engagement in College and Associated Areas of Measurement in the VSCPA

WHO-ICF	VSCPA	Engagement in College Survey	From Solider to Student II
Major life areas - education (d830)	Studying or doing homework for a college course	Preparing for class	Academic support/tutoring
Major life areas - work and employment (d845)	Working or paid employment	Differentiates between on and off campus jobs	Employment assistance, but not employment (as in how often they work)
Self-care (d570, specifically d5701)	Exercising - aerobic or strengthening		,

Domestic life (d640)	Doing a household related activity		
Domestic life (d660)	Providing care for a family member or significant other	Providing care for dependents living with them	
Community, social and civic life (d910)	Volunteering or doing unpaid work	Contributing to welfare of your community	
Community, social and civic life (d9201)	Doing (participating in) an organized sports activity	•	
Community, social and civic life (d920, specifically 9205)	Socializing in person with family	Relaxing and socializing (does not differentiate between family/friends)	
Community, social and civic life (d920, specifically 9205)	Socializing in person with friends	Relaxing and socializing (does not differentiate between family/friends)	
Communication (d360)	Speaking on the phone with family or friends	•	
Interpersonal interactions and relationships (d760) Community, social and civic life (d920)	Socializing through electronic media with family or friends Playing video games	Relaxing and socializing	
Interpersonal interactions and relationships (d770)	Engaging in an affectionate or intimate physical relationship		
Self-care (d570, specifically d5702)	Going to a medical, counseling, or health care visit		
Community, social and civic life (d930)	Engaging in a spiritual or religious activity		
Community, social and civic life (d920)	Attending an arts, sports, or civic activity		Campus social and/or cultural events
Community, social and civic life (d920)	Doing (participating in) an outdoor activity	Participating in co- curricular activities	
Community, social and civic life (d920)	Doing (participating in) a hobby,	Participating in co- curricular activities	

Note. WHO-ICF = World Health Organization's International Classification of Disease and Functioning, VSCPA = Veterans' Social and Community Participation Assessment.

Barriers to Community Reintegration for SSM/V

Veterans face additional challenges outside of socializing and academics, which may further limit community reintegration. Increasingly, college students are experiencing more financial stress while in college, contributing to poor academic performance in addition to mental and physical health problems. For students with disabilities, financial stress has a negative effect on student perceptions of campus supportiveness (Murray et al., 2013). Despite GI Bill benefits, SSM/V also face financial stress while in college. Many SSM/V report that their GI benefits are not sufficient to attend school full-time without working, and therefore they must balance school and work (DiRamio, Ackerman, & Mitchell, 2008). Smith-Osbourne (2012) suggests that using GI benefits alone is not sufficient to support Veterans in higher education without additional social, health, academic, and income support. Indeed, financial stress is negatively associated with social support satisfaction, and higher levels of social support satisfaction can aid with the overall adjustment of college students with disabilities, while also buffering the negative effects of financial stress (Murray et al., 2013).

As well, many SSM/V experience somatic symptoms that negatively impact their participation in meaningful activities. Somatic symptoms are physical symptoms, such as pain and fatigue, which contribute to functional impairments and poor health outcomes. PTSD, depression, mTBI, and somatic symptoms are described as mutually exacerbating, contributing to behavioral challenges for many SSM/V (Brenner, Vanderploeg, & Terrio, 2009). Chronic pain is regarded as one of the most common co-morbid problems for individuals with PTSD

(Shipherd et al., 2007). Additionally, a study with soldiers one year after their return from Iraq found that PTSD symptoms contributed to poor self-rated health, high somatic symptom severity, sick call visits, and missed workdays (Hoge et al., 2007). This suggests that health-related variables, such as PTSD or somatic symptoms, can interfere with one's participation in activities they want or need to do.

Given a review of the literature on social support, meaningful activity participation, and social and community participation, this study proposes two hypotheses: 1) Frequency of engagement in social and community participation will be positively associated with perceived social support and 2) Frequency of engagement in social and community participation will be positively associated with meaningful activity participation. This study also proposes two research aims: first, to explore the factor structure of the VSCPA. Secondly, in light of the literature review, to explore the relationships between perceived social supports, meaningful activity participation, social and community participation, and health-related variables (PTSD, mTBI, somatic pain, and depression).

METHOD

Procedure and Sample

This is a non-experimental, cross-sectional correlational design study. The sample was derived from SSM/V at Colorado State University (CSU). One portion of the sample came from the New Start for Student Veterans (NSSV) program, an educational support program assisting post-9/11 Veterans with service-related injuries. The other portion was composed of SSM/V not participating in NSSV. Following the study's approval by the university's Human Subjects Review Board, participants were sent an invitation email to participate, followed by two reminder emails. NSSV participants were contacted through NSSV staff, while other SSM/V participants were contacted through the CSU Veterans' benefits office. Surveys were sent out in April 2015, and participants received a \$10 gift card to Amazon for completion. Surveys were completed on SurveyMonkey, a web-based survey host.

A total of 165 participants completed the survey; three participants had graduated or withdrawn from school and were removed from the sample. The final sample size was 162. The large majority of participants were male (n = 134; 82.7%), not married (n = 93; 57.4%), and did not have children (n = 119; 73.5%). Nearly all participants lived off campus (n = 156; 96.3%), and the majority lived with another person (n = 137; 84.6%). The large majority of participants were Caucasian (n = 135; 83.3%), undergraduate students (n = 118; 72.8%), and indicated a disability rating with the Veterans Administration (VA) (n = 92; 54.9%). In total, 57 (35.0%) participants screened positive for service-related mTBI as indicated by Hoge (2007): 13 (8.0%) reported being injured in a blast, 1 (0.6%) by a bullet, 8 (4.9%) by fragments, 33 (20.2%) by a fall, 20 (12.3%) by a motor vehicle accident, and 16 (9.8%) in the category of "other"; see Table

2. The majority of participants were not caring for a child (n = 113; 69.8%) and a slight majority reported working (n = 92, 56.8%). Nearly all reported completing homework outside of class (n = 158, 97.5%).

Table 2 Demographic Variables for Student Service Members/Veterans (n = 162)

Variables	n (%)
Age in years	30.56 ± 7.32 ,
5	range: 20 - 59
Gender	S
Male	134 (82.7%)
Female	28 (17.3%)
Marital status	
Married	69 (42.6%)
Not married	93 (57.4%)
Number of children	
0	119 (73.5%)
1	13 (8.0%)
2	16 (9.9%)
3 or more	14 (8.6%)
Race/ ethnicity	
American Indian/Alaska	1 (0.6%)
native	1 (0.070)
Asian	4 (2.5%)
Black/African American	3 (1.9%)
Hispanic/Latino	14 (8.6%)
White/ Caucasian	135 (83.3%)
Prefer not to answer	5 (3.1%)
Year of study	
Freshman	20 (12.3%)
Sophomore	29 (17.9%)
Junior	35 (21.6%)
Senior	34 (21.0%)
Graduate school	44 (27.2%)
Compus living status	
Campus living status	6 (2 70/)
On campus	6 (3.7%)
Off campus	156 (96.3%)

Cohabitation status	
Lives with others	137 (84.6%)
Lives alone	25 (15.4%)
Branch of service	
Air Force	35 (21.6%)
Army	67 (41.4%)
Coast Guard	3 (1.9%)
Marine Corps	31 (19.1%)
Navy	26 (16.0%)
VA Disability rating	
No, I have not received a	73 (45.1%)
disability rating	,
Yes, it is between 0-20%	29 (17.9%)
Yes, it is between 30-60%	33 (20.4%)
Yes, it is between 70-100%	27 (16.7%)
Cause of mTBI	
Fall	33 (20.2%)
Motor vehicle accident	20 (12.3%)
Blast injury	13 (8.0%)
Fragment	8 (4.9%)
Bullet	1 (0.6%)
Other	16 (9.8%)
Total participants with self-	57 (35.0%)
reported TBI ^a	
Total participants without	105 (65.0%)
self-reported TBI	· ,
NT-4- NTA NT-4 A 1	TDI

Note. VA = Veterans Administration, mTBI = service-related mild traumatic brain injury ^aSome participants reported multiple mTBI causes

Instruments

Veterans Social and Community Participation Assessment (VSCPA)

The Veterans Social and Community Participation Assessment (VSCPA) is a newly developed 18-item tool that provides an objective measure of social and community participation for SSM/V. The instrument development process began by reviewing literature on Veteran activities within higher education environments (Kim & Cole, 2013; McBain et al., 2012). Existing instruments that assess community and social participation were reviewed to identify

activities that could be considered in the present instrument, which aided with rich item development. An initial list of social and community participation activity items was composed, which was then reviewed with NSSV service providers working with SSM/V. This initial list was then amended through discussion, comments, and feedback from service providers and Veterans in college. As there is no gold standard for item coverage for assessments of community reintegration (Resnik et al., 2012), the WHO-ICF was introduced to evaluate the VSCPA items, ensuring they covered a breadth of participation domains. The WHO-ICF dimensions of activity and participation are appropriate for describing and assessing a depth and breadth of community reintegration activities of Veterans (Resnik et al., 2012; Sandberg et al., 2009). In order to gain necessary breadth, an assortment of chapters in the WHO-ICF was drawn from, and activities within different domains of chapters were identified in order to establish depth. The participation domains of the WHO-ICF included in the VSCPA were: major life areas; self-care; domestic life; community, social, and civic life; communication; and interpersonal interactions and relationships. While Resnik and Allen (2007) used the WHO-ICF to cover a broad range of every ICF chapter in order to address all Veterans with injuries who are reintegrating into the community, the VSCPA only incorporates chapters from the WHO-ICF that are most relevant to SSM/V, as to make an indication of what activities should be measured in a college setting. As a result, item coverage in the present study is narrower than Resnik and Allen (2007), as the present study is focused on what activities are most applicable to Veterans in higher education. Including both breadth and depth in a measurement is crucial so that the measurement has both validity and precision in measuring aspects of social and community participation (Chang et al., 2013). Please refer back to Table 1.

A 7-point frequency rating scale was adopted for question responses. The rating scale offered the following responses: 0 = did not occur, 1 = one time in the last four weeks, 2 = 2 to 3 times in the last four weeks, 3 = one time a week, 4 = two to three times a week, 5 = four to six times a week, and 6 = every day of the week. Item scores are summed for a total score on the VSCPA and range from 0 to 108, with higher scores indicating greater frequency of participation in social and community participation activities. Participants were given instructions to indicate how often they participated in each type of activity over the last four weeks using the above scale.

Postdeployment Support Questionnaire (PDSQ)

The PDSQ is a 10-item self-report scale that assesses the extent to which family, friends, and the community provide emotional and instrumental support (Vogt, Proctor, King, King, & Vasterling, 2008). The PDSQ comes from a larger battery of assessments, the Deployment Risk & Resilience Inventory (DRRI). The DRRI is a psychometric endeavor designed to assess deployment-related factors that affect the health and well-being of military Veterans (Vogt et al., 2008). Sample PDSQ items include: "My family members or friends would help me move my belongings if I needed help" and "There are family and/or friends with whom I can talk about my deployment experiences." The PDSQ uses a 5-point Likert response scale of 1 = Strongly disagree to 5 = Strongly agree with a possible score range of 10 - 50. When tested with a population of OIF Veterans, the PDSQ demonstrated negative correlations with PTSD (r = -.32), depression (r = -.40), and physical symptoms (r = -.19) (Vogt et al., 2008). The PDSQ demonstrated good internal consistency reliability ($\alpha = .88$) when assessing OIF Veterans (Vogt et al., 2008).

Engagement in Meaningful Activities Survey (EMAS)

The EMAS is a 12-item self-report assessment of positive subjective experiences associated with meaningful activities (Eakman, 2012). Participants are asked to rate the extent to which they have experienced these positive meaningful experiences within their day-to-day activities on a scale of 1 = Rarely to 4 = Always. Sample items include: "The activities I do contribute to my feeling competent" and "The activities I do help other people." Scores on the EMAS range from 12 to 48. The EMAS has been found to be a valid and unidimensional assessment of meaningful activity participation in samples of college students (Eakman, 2012). The EMAS has been found to have good internal consistency reliability ($\alpha = .88$) as well as adequate test-retest reliability (r = .71) (Eakman, 2011). When using the EMAS with a sample of post-9/11 Veterans with service-related trauma in college, PTSD and depression were found to be negatively correlated with the EMAS, while social support was found to be positively correlated with the EMAS (Eakman et al., 2016). Positive associations have been found with measures of life satisfaction, health-related quality of life, basic psychological needs fulfillment, and meaning and purpose in life (Eakman, 2011; Eakman, 2014).

Posttraumatic Stress Disorder Checklist - Civilian Version (PCL-C)

The PCL-C is a well-validated 17-item self-report survey assessing the extent of problems and complaints associated with PTSD using diagnostic criteria from the *Diagnostic* and Statistical Manual of Mental Disorders, fourth edition (DSM-IV; American Psychiatric Association, 1994) (α = .94; Blanchard, Jones-Alexander, Buckley, & Forneris, 1996). Scores on the PCL-C range from 17-72 (Blanchard et al., 1996). A higher score in the PCL-C indicates increased severity of PTSD symptoms.

Patient Health Questionnaire Depression Scale (PHQ-9)

The PHQ-9 is a nine-item self-report assessment of how often people experience symptoms of the nine DSM-IV criteria for depression (α = .86). Scores on the PHQ-9 range from 9-36 (Manea, Gilbody, & McMillen, 2012). A higher score in the PHQ-9 indicates increased depressive symptomology.

Patient Health Questionnaire Somatic Symptoms Scale (PHQ-15)

The PHQ-15 is a well-validated, 15-item, self-report assessment of somatic symptom severity. Scores range from 0-31 on the PHQ-15. Greater somatic symptom severity has been associated with substantial functional impairments and disability (α = .78; Kroenke, Spitzer, & Williams, 2002). The item on menstrual cramps was eliminated because of the low number of women in the sample. A higher score in the PHQ-15 indicates greater somatic symptom severity.

Data Analysis

As the VSCPA has not been used in previous studies, the scale mean, *SD*, and internal consistency reliability (Cronbach's alpha) were determined first. Descriptive statistics and Cronbach's alpha were run for the EMAS, PDSQ, PCLC, PHQ-9, and PHQ-15. Principal components analysis (PCA) was used to explore the factor structure of the VSCPA. An Eigen value of 1.0 was set for component extraction, a Varimax (uncorrelated components) rotation was employed, and a total of three or more items within a component (with component loadings of > 0.40) were used to evaluate simple structure. Zero-order correlations were used to explore relationships between the study variables.

Multiple regression analysis was used as an additional test of the study hypotheses to assess the contribution of social and community participation to explaining social support and meaningful activity participation. In Model 1 social support was regressed on demographic and

health-related variables and included either the VSCPA total score (Model 1a) or the VSCPA component scores identified through PCA (Model 1b). In Model 2 meaningful activity was regressed on demographic and health-related variables and included either the VSCPA total score (Model 2a) or the VSCPA component scores identified through PCA (Model 2b).

Demographic variables included: age, gender, marital status (0 = married, 1 = not married), race/ethnicity (0 = other, 1 = Caucasian), year of study, campus living status (0 = on campus, 1 = off campus), cohabitation status (0 = lives alone, 1 = lives with another), and financial worry.

Financial worry was the average of three items for which participants indicated their level of agreement, from 1 = strongly disagree to 4 = strongly agree, that they worry often about not having enough money for college expenses, living expenses, and discretionary expenses. Health-related variables included presence of service-related mTBI (0 = yes, 1 = no), and levels of post-traumatic stress, depression, and somatic symptomology.

RESULTS

Participants reported participating in an average of 12 activities (M = 11.96, SD = 2.77) on the VSCPA. Mean (SD) for activity items ranged from a low of .91 (1.53) for participating in organized sports to a high of 4.65 (1.27) for doing a household activity. VSCPA total score mean was 43.02 (12.46). The activities participants most frequently engaged in were doing a household activity (n = 161; 99.3%), studying or doing homework (n = 158; 97.5%), and exercising (n = 149; 92.0%). Activities that participants least frequently engaged in were playing video games (n = 64; 39.5%), doing spiritual or religious activities (n = 59; 36.4%), and participating in organized sports (n = 50; 30.9%). The activities the greatest number of participants reported engaging in on a daily basis included: doing a household activity (n = 52; 32.1%), socializing through electronic media (n = 42; 25.9%), and studying or doing homework (n = 34; 21.0%). Furthermore, there was substantial agreement between the VSCPA and the time use indicators in reference to whether the participants were caring for children or a family member (VSCPA = 45.7%, time use = 30.2%), working for pay (VSCPA = 58%, time use = 56.8%), and doing homework outside of class (VSCPA = 97.5%, time use = 97.5%). See Table 3.

Table 3 Veterans' Social and Community Participation Assessment Descriptive Statistics

Activity type	N (%) of sample participating	M (SD) for all participants	M (SD) for doers
Studying or doing homework	158 (97.5%)	4.61 (1.25)	4.73 (1.02)
Working or paid employment	94 (58.0%)	2.60 (2.40)	4.48 (1.21)
Exercising	149 (92.0%)	3.72 (1.67)	4.04 (1.31)
Doing a household activity	161 (99.3%)	4.65 (1.27)	4.68 (1.22)

Providing care for	74 (45.7%)	1.99 (2.47)	4.35 (1.74)
family			
Volunteering	81 (50.0%)	1.19 (1.48)	2.38 (1.23)
Participating in	50 (30.9%)	.91 (1.53)	2.96 (1.23)
organized sports			
Socializing in person	113 (69.8%)	2.37 (2.16)	3.40 (1.79)
with family			
Socializing in person	148 (91.4%)	3.29 (1.72)	3.60 (1.46)
with friends			
Speaking on the	154 (95.0%)	3.13 (1.46)	3.29 (1.31)
phone with family or			
friends			
Socializing through	139 (85.8%)	3.59 (2.10)	4.18 (1.63)
electronic media			
Playing video games	64 (39.5%)	1.49 (2.01)	3.77 (1.28)
Engaging in an	116 (71.6%)	2.73 (2.18)	3.81 (1.58)
intimate relationship			
Going to a medical,	89 (54.9%)	1.08 (1.27)	1.97 (1.09)
counseling, or	, ,	, ,	
healthcare visit			
Spiritual or religious	59 (36.4%)	1.17 (1.77)	3.20 (1.45)
activities		, ,	` ,
Attending arts, sports,	76 (46.9%)	.92 (1.25)	1.96 (1.13)
or civic activity	, ,	, ,	
Doing outdoor	123 (75.9%)	2.08 (1.61)	2.74 (1.27)
activities	,	, ,	` ,
Doing a hobby,	90 (55.6%)	1.52 (1.75)	2.73 (1.47)
music/artistic, or	, ,	,	, ,
civic activity			
17 . D	1 . 1		

Note. Doers = participants who reported participating in the activity

The internal consistency of the VSCPA was 0.67, which fell just short of the generally accepted .70 value. Corrected item total correlations (CITC) were then evaluated, and identified five items with CITC of less than .2 (Studying or doing homework = .05, working or paid employment = .14, providing care for a family member or significant other = .14, playing video games = -.04, and going to a medical, counseling, or healthcare visit = .03) suggesting the scale was likely multidimensional.

The PCA results indicated multidimensionality given a seven component solution which explained 62.36% of the variance within the VSCPA. Of these components, only components I,

II, and III contained three or more item-component loadings > 0.40. Component I comprised five VSCPA items (component loading) reflecting *Active community participation* including: Exercising (.65), Participating in an organized sport (.75), Attending an art, sport, or civic activity (.70), Participating in an outdoor activity (.67), and Participating in a hobby, music/artistic, or civic activity (.44). Component II included four items reflecting *Familial and household participation* including: Participating in a household activity (.47), Providing care for family/significant other (.82), Socializing in person with family (.65), and Engaging in an affectionate/physical relationship (.53). Lastly, component III included three VSCPA items reflecting *Social participation* including: Socializing in person with friends (.67), Speaking on the phone with family or friends (.49), and Socializing through electronic media (.77).

The two hypotheses were first tested through zero-order correlations. It was hypothesized that greater frequency of social and community participation would be positively associated with perceived social support and meaningful activity participation, see Table 4. As hypothesized, social and community participation was positively correlated with social support (r = .39, p < .01) and meaningful activity participation (r = .44, p < .01). Meaningful activity participation was negatively correlated with PTSD, depression, and somatic pain; and, as anticipated, was positively correlated with social support. PTSD was correlated at a statistically significant level with multiple variables: negatively with social support and meaningful activity participation, and positively with depression and somatic pain.

Table 4
Zero-order Correlations

Study Variable	1	2	3	4	5	6	7	8	9
1. VSCPA	1								
2. VSCPA - I	.60**	1							
3. VSCPA - II	.62**	.14	1						
4. VSCPA - III	.65**	.41**	.22**	1					
5. PCL-C	21**	13	19*	17*	1				
6. PHQ-9	25**	19*	19*	21**	.83**	1			
7. PHQ-15	29**	21**	18*	21**	.49**	.46**	1		
8. PDSQ	.39**	.13	.38**	.31**	43**	40**	22**	1	
9. EMAS	.44**	.35**	.24**	.41**	48**	51**	19*	.39**	1
Mean	43.02	NA	NA	NA	32.47	15.71	7.85	37.87	32.15
(SD)	(12.46)				(14.34)	(6.29)	(6.46)	(7.86)	(7.09)
Cronbach's	.67	NA	NA	NA	.95	.92	.90	.87	.93
Alpha									

Note. VSCPA = Veterans' Social and Community Participation Assessment, VSCPA - I = Active community participation, VSCPA - II = Familial and household participation, VSCPA - III = Social participation, PCL-C = Posttraumatic Stress Disorder Checklist - Civilian Version,

PHQ-9 = Patient Health Questionnaire - Depression, PHQ-15 = Patient Health Questionnaire - Somatic Pain, PDSQ = Postdeployment Support Questionnaire, EMAS = Engagement in Meaningful Activities Survey p < .05, ** p < .01.

Social support was positively associated with two VSCPA component scores, Familial and household participation (r = .38, p < .01) and Social participation (r = .31, p < .01). Meaningful activity participation was positively associated with each VSCPA component score, Active community participation (r = .35, p < .01), Familial and household participation (r = .24, p < .01), and Social participation (r = .41, p < .01). Somatic pain and depression were negatively correlated at a statistically significant level with all three components of social and community participation.

A total of four regression models were evaluated as additional tests of the study hypotheses that social and community participation as measured by the VSCPA would explain social support and meaningful activity participation as measured by the PDSQ and EMAS. In Model 1a & 1b, the PDSQ was regressed on demographic and health-related variables and included the VSCPA total score (1a) and VSCPA component scores (1b), see Table 5. The VSCPA was a statistically significant contributor explaining the PDSQ (β = .34, p < .001), in addition to financial worries and the PCL-C, which were both negatively associated with the PDSQ. In Model 1b a similar pattern was found in which component II (*Familial and household participation*, β = .21, p = .004) and component III (*Social participation*, β = .21, p = .006) explained the PDSQ: again, financial worries and the PCL-C were also significant. Component I, *Active community participation*, was not significant in Model 1a or 1b.

In Model 2a the VSCPA was a statistically significant contributor explaining the EMAS $(\beta = .35, p < .001)$, in addition, Caucasian participants reported greater meaningful activity than did non-Caucasians. The PCL-C, PHQ-9, and PHQ-15 were negatively associated with the EMAS. In Model 2b a similar pattern was found in which component I (*Active community participation*, $\beta = .26$, p < .001) and component III (*Social participation*, $\beta = .24$, p = .001) both

explained the EMAS in addition to the PCL-C and the PHQ-15. Component II, *Familial and household participation*, was not significant in Model 2a or 2b. See Table 5.

Table 5
Regression Models Predicting Social Support and Meaningful Activity

	Model 1 - PDSQ						
	a - VSCPA			b - VSCPA (b - VSCPA Component Scores		
Significant Model							
Variables	B (SE)	β	t	B (SE)	β	t	
Fin. Worries	-2.56 (.70)	27	-3.92***	-2.29 (.66)	24	-3.49**	
PCL-C	20 (.07)	37	-2.92**	19 (.07)	34	-2.72**	
VSCPA	.21 (.04)	.34	4.81***	na	na	na	
VSCSPA - II	na	na	na	1.66 (.56)	.21	2.97**	
VSCPA - III	na	na	na	1.64 (.58)	.21	2.81**	
	Mode	Model adjusted			Model adjusted		
	R-squared = $.32***$ R-squared = $.33***$			•			
	Model 2 - EMAS						
	a -	VSCPA	A	b - VSCPA (Compone	ent Scores	
	B (SE)	β	t	B (SE)	β	t	
Caucasian	2.46 (1.21)	.13	2.03*	2.55 (1.16)	.13	2.19*	
PCL-C	15 (.06)	31	-2.62*	17 (.06)	34	-3.00**	
PHQ-9	25 (.13)	22	-1.93*	19 (.13)	17	-3.01	
PHQ-15	22 (.08)	20	-2.68**	23 (.08)	.21	2.93**	
VSCPA	.20 (.04)	.35	5.33***	na	na	na	
VSCPA - I	na	na	na	1.85 (.48)	.26	3.88***	
VSCPA - III	na	na	na	1.68 (.47)	.24	3.52***	
	Mode	el adjus	sted	Mod	el adjuste	ed	
	R-squared = $.40***$			R-squared = .44***			

Note. Only significant model variables are presented; PDSQ = Postdeployment Support Questionnaire, EMAS = Engagement in Meaningful Activities Survey, VSCPA = Veterans' Social and Community Participation Assessment, VSCPA - I = Active community participation, VSCPA - II = Familial and household participation, VSCPA - III = Social participation, PCL-C = Posttraumatic Stress Disorders Checklist - Civilian version, PHQ-9 = Patient Health Questionnaire - depression, PHQ-15 = Patient Health Questionnaire - somatic pain, Variables

not significant in Models 1 and 2: age, gender, marital status, year of study, lives off campus, lives with others, monthly income, VA disability status, presence of mTBI. *=p < .05, **=p < .01, ***=p < .001.

DISCUSSION

This study contributes to the current literature through exploring constructs that are understudied in the Veteran population: social support, social and community participation, and meaningful activity participation. As previous research has failed to look at how SSM/V form social support (Whiteman et al., 2013), this study contributes to an important gap in knowledge through demonstrating a positive association between social and community participation, meaningful activity participation, and social support in SSM/V. This study also indicates the negative impact of service-related trauma on social support and meaningful activity participation, two important aspects of community reintegration for this population. Measurement of community reintegration is central to promoting the development of interventions targeting enhanced participation in life roles for SSM/V (Resnik et al., 2012), and assessing social and community participation is an important subset of measuring community reintegration.

Results of exploratory factor analysis revealed three components with three or more items within the VSCPA: Active community participation, Familial and household participation, and Social participation. The first component, Active community participation, was composed of the following activities: exercising, participating in an organized sport, attending an art, sport, or civic activity, participating in an outdoor activity, and participating in a hobby, music/artistic, or civic activity. This component was significant in explaining meaningful activity participation at both the zero-order level and in the regression models, suggesting that frequency of participating in these activities is associated with SSM/V also participating in activities that are personally meaningful, culturally relevant, or fulfilling. However, Active community participation was not significant in explaining social support at the zero-order level or in the multiple regression

models, suggesting that while this component of social and community participation may explain meaningful activity participation, it may be less important in the development and maintenance of social support. This may be because many of the items in this component are activities that one can participate in alone. While engaging in these activities may provide feelings of competence, satisfaction, or pleasure (contributing to meaningful activity participation), they may not aid in the development and maintenance of social support, especially if they are being participated in alone.

The second component, Familial and household participation, is composed of: participating in household activities, providing care for family, socializing in person with family, and engaging in an affectionate intimate relationship. This component was significant in explaining social support both at the zero-order level and in the regression models, suggesting that these activities are associated with the development and maintenance of social support. Piskur et al. (2014) suggest that societal involvement, a key component of social participation, is best understood in light of social roles. For many SSM/V, the role of husband, father, wife, mother, or significant other may be an important social role they are fulfilling, and therefore a key component of social support. However, Familial and household participation was negatively associated with PTSD, depression, and somatic pain at the zero-order level. Sayers, Farrow, Ross, and Oslin (2009) found that family role readjustment problems for Veterans returning home from deployments, such as relationships with children or spouses, were related to both PTSD and depression. This suggests that service-related trauma may impact a Veterans' role as a family member or significant other, as well as their ability to fulfill an important social role, or experience social support from their family members or significant others. Furthermore, while Familial and household participation was positively associated with meaningful activity

participation at the zero-order level, it was not significant in explaining meaningful activity participation in the multiple regression models in the presence of VSCPA components I and III.

The key activities comprising the third component, Social participation, were: socializing in person with friends, speaking on the phone with friends or family, and socializing through electronic media. Indeed, these three activities strongly reflect social interactions, a key factor of social participation, though they are varied forms of social interaction: one is face-to-face interaction, one is over the phone, and one involves social media. Only one of the three activities in Social participation involved face-to-face interaction, suggesting that social participation may be just as important in virtual realms as it is in face-to-face communication. Social connectedness through Facebook, for example, has been associated with lower depression and anxiety, and greater subjective wellbeing (Grieve, Indian, Witteveen, Tolan, & Marrington, 2013). Additionally, Ellison, Steinfield, and Lampe (2007) found that overwhelmingly, college students primarily use social media sites such as Facebook to keep in touch with old friends and to maintain or develop relationships with people they have met on campus. For SSM/V in this study, social media use may help them to stay connected not only to family and friends, but also as a means to keep them connected to their military comrades. Similarly, talking on the phone may promote social connectedness: it may be a way to continue to connect with loved ones, or with their military comrades. Social participation within the VSCPA was the only component significant in both of the regression models, suggesting that this component is a unique aspect of participation that can be associated with both social support and meaningful activity participation, and is therefore a significant contributor to community reintegration for SSM/V.

This study also tested the psychometric properties of the VSCPA, a new assessment that had not been previously used in other studies. Of the 18 activity items on the VSCPA, it was

found that SSM/V in this study participated in an average of 12 activities, demonstrating what is a normative number of activities within the sample. However, the 12 items comprising the three components of the VSCPA were found to explain slightly more variance in social support and meaningful activity participation than all 18 items of the VSCPA. Additionally, the low reliability coefficient found within the 18-item VSCPA indicated multidimensionality of the scale. This suggests that a shorter version of the VSCPA containing the 12 significant PCA items may be sufficient for measuring the social and community participation activities most capable of explaining meaningful activity participation and social support. The WHO-ICF was used to develop the scale, enabling a larger range of activities to be reflected than previous research assessing social and community participation of this population within a university setting (see Appendix A). Reflecting a larger range of activities than previous research, such as McBain et al. (2012) and Kim and Cole (2013) has contributed to an improved understanding of activity engagement in Veterans in higher education.

As hypothesized, the VSCPA was significant in explaining both social support and meaningful activity participation. These results suggest the criticality of social and community participation in contributing to the development and maintenance of social support and meaningful activity participation, both of which are crucial to SSM/V successfully integrating into higher education (Eakman et al., 2016; Whiteman et al., 2013). This suggests that social and community participation may provide the context through which social support can be developed and maintained. The findings specifically indicate that *Familial and household participation* and *Social participation* were the strongest predictors of social support in the present sample. Social and community participation also offers a context through which SSM/V experience meaning in their everyday activities, given the significance of the VSCPA in predicting meaningful activity

participation. On the zero order level, all three components of the VSCPA were associated with meaningful activity participation. However, only *Active community participation* and *Social participation* were significant predictors of meaningful activity participation in the regression models.

By far, the largest factor explaining social support and meaningful activity participation was PTSD. Not only was PTSD significant in both regression models, it was the largest contributor to explaining social support and meaningful activity participation. These findings are therefore consistent with past research in demonstrating the negative effects of PTSD on social support development and meaningful activity participation (Eakman et al., 2016; King et al., 2006; Spiecher et al., 2014). This suggests that service-related trauma continues to interfere with the positive experience of meaningful activity participation for SSM/V who are coping with the debilitating symptoms of PTSD. Additionally, somatic pain and financial worry were identified through the multiple regression models as factors that are negatively associated with social support and meaningful activity participation. This further reinforces that SSM/V face multifaceted issues when integrating into higher education, ranging from physical, emotional, financial, and social difficulties.

Implications for Professionals in Higher Education Working with SSM/V

Professionals working with SSM/V transitioning into higher education should be aware of the role that service-related trauma plays in negatively impacting community reintegration, complicating the transition into college. Veterans returning to the U.S. with health-related challenges may benefit from academic and/or disability accommodations to aid in a successful transition on a college campus (McBain et al., 2012). However, a lack of campus preparedness may lead to increased difficulties for SSM/V with service-related trauma trying to navigate the

transition into higher education, including navigating available campus resources and accommodations (Kim & Cole, 2013). For this reason, multidisciplinary cooperation is essential for coordinating services and resources for SSM/V; such collaboration should exist between campus disability services, learning support services, mental health providers, educators, and Department of Veterans Affairs officials (Eakman et al., 2016). Research suggests that providing early social support may reduce PTSD symptoms and co-morbid conditions for OIF/OEF Veterans (Pietrzak et al., 2010). For this reason, professionals should consider working with SSM/V from the beginning of their enrollment to connect SSM/V with campus and community resources, with the intention of facilitating social support and campus success (Dutra et al., 2016). Additionally, as this research was consistent with others in suggesting the negative impact of financial stress on social support, campus professionals should also aim to support SSM/V with this aspect of integration through connecting them to financial aid resources (Smith-Osbourne, 2012).

This study demonstrates that PTSD may be a threat to SSM/V developing and maintaining social support and participating in meaningful activities, and should therefore be addressed in order for SSM/V to have an increased chance at successfully integrating into collegiate life. SSM/V with service-related trauma would benefit from working with an interdisciplinary team consisting of: campus disability services, occupational therapists, psychologists or psychiatrists, school counselors, while also working in conjunction with a Veteran's support network as to facilitate a successful integration to the campus (Dutra et al., 2016). King et al. (2006) suggest that development of interpersonal skills should be targeted as an aspect of enhancing social support for Veterans with PTSD. Professionals, such as occupational therapists, should therefore focus on PTSD symptom remediation and interpersonal

skills interventions as key components of working with SSM/V who have PTSD, as an aspect of promoting social support and facilitating a successful transition to higher education (Dutra et al., 2016).

Given the significance of *Social participation* in explaining both social support and meaningful activity participation, professionals should incorporate interventions and strategies to encourage SSM/V to increase social participation activities, with the aim that social support and meaningful activity participation will also increase. Professionals should be proactive in considering support services not only for Veterans, but also for their families, as other research is consistent with this study in demonstrating the positive effect of families and *Familial and household participation* on social support (Smith-Osbourne, 2012). Other research has highlighted that fellow Veterans generally provide the most prominent source of academic and social support for SSM/V, therefore, campus professionals should also focus their efforts towards connecting SSM/V to one another on campus (Livingston, Havice, Cawthon, & Fleming, 2009). Professionals should also try to work closely with family and peer supports as a means of developing social support and enabling meaningful activity participation (Eakman et al., 2016).

Limitations & Future Research

While this study provides important contributions to current literature on SSM/V, it is not without limitations. This study was confined to Veterans attending one Mountain university.

While there is no reason to believe these Veterans are different from their comrades, it should be acknowledged that this sample was largely homogenous in terms of race and gender, making it difficult to generalize the results. Future studies with the VSCPA should try to acquire larger, more diverse samples to assess the validity of this assessment with a sample that is more representative of different demographic variables. Additionally, using a cross-sectional design

for this study makes it so that causal relationships cannot be verified, therefore future research should consider using a longitudinal design in order to track and detect changes in these variables across semesters.

As this is the first study utilizing the VSCPA, there are several limitations that future studies utilizing this assessment should consider. First, despite the importance of incorporating subjective participation into assessments, the VSCPA only measures objective participation (i.e. frequency). Measures of objective and subjective participation may offer different, though equally important, information when assessing participation (Coster & Khetani, 2008); therefore, future studies utilizing the VSCPA should use an assessment of subjective participation, such as the EMAS, in conjunction with the VSCPA. Another limitation of the VSCPA is only assessing what the WHO-ICF refers to as "positive aspects" of functioning (WHO, p. 11, 2001); that is to say, the VSCPA only measures activities that SSM/V are participating in. Future research should include "negative aspects" of disability (WHO, p. 11, 2011), which would give researchers and professionals working with SSM/V a richer picture of specific activity limitations and participation restrictions within the realm of social and community participation. Future research should also focus efforts to evaluate a shorter version of the VSCPA that contains only the items found significant in the PCA, as this would offer a shorter assessment focusing on aspects of social and community participation that are most capable of explaining meaningful activity participation and social support development. Lastly, it is important that researchers continue to focus on developing and validating assessments for the community reintegration of Veterans, specifically SSM/V, as to aid in the development of interventions targeting enhanced participation for this population (Resnik et al., 2012).

Conclusion

This study contributes to current literature through demonstrating positive relationships between social and community participation, social support, and meaningful activity participation, while also illustrating the negative effects of service-related trauma on community reintegration for SSM/V. These findings indicate that SSM/V who experience higher levels of depression, PTSD, and somatic pain are more likely to have lower levels of social support, engage less frequently in social and community participation activities, and experience lower levels of meaningful activity participation. Future research is needed to validate the VSCPA with more demographically diverse populations, as well as to develop and test interventions targeting social support for this population.

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