

Article

Exploring Student Service Members/Veterans Social Support and Campus Climate in the Context of Recovery

Susan M. Love *, Amy Levin † and Hyun-Sun Park †

Department of Social Work, California State University, Northridge, 18111 Nordhoff Street, Northridge, CA 91330-8226, USA; E-Mails: amy.levin@csun.edu (A.L.); hyun.park@csun.edu (H.-S.P.)

† These authors contributed equally to this work.

* Author to whom correspondence should be addressed; E-Mail: susan.love@csun.edu; Tel.: +1-818-677-4456; Fax: +1-818-677-7662.

Academic Editor: Martin J. Bull

Received: 4 May 2015 / Accepted: 17 September 2015 / Published: 24 September 2015

Abstract: Now that the financial needs of post 9/11 student service members/veterans have begun to be addressed, the attention has shifted to disabilities and recovery strategies of student service members/veterans. Therefore, in a cross sectional design, this study electronically surveyed 189 enrolled student service members/veterans attending a large urban state university about their experiences of returning to school. Specifically, this study described the students' rates of Post-Traumatic Stress Disorder (PTSD) and alcohol abuse, perceived stress, adaptive and non-adaptive coping strategies, social support, participation in campus activities, and perceived campus climate. Moreover, correlates of recovery were examined. Although the majority of the returning students were doing well, 36.1% reported a high level of stress, 15.1% reported a high level of anger, 17.3% reported active symptoms of PTSD, and 27.1% screened positive for alcohol problems. Social networks were found to be the most salient factor in recovery. The study's limitations are discussed and specific support strategies are presented that can be employed by disability services, counseling services and college administrators.

Keywords: veteran recovery; college counseling; student service members/veterans

1. Introduction

A college education is our country's promise to the courageous young men and women who have volunteered their lives since the 11 September 2001 terrorist attack. From 2009 to 2013, with the passage of the Post-9/11 Veteran Education Assistance Act (Post-9/11 GI Bill), 2,356,193 student service members/veterans (SSM/V) have attended college [1]. Furthermore, the Post-9/11 GI Bill appropriates in-state tuition when enrolled in public institutions of higher learning [1], giving prominence to state colleges and universities. Student service members/veterans (SSM/V) are distinctly different than their civilian counterparts. Compared to civilian students, more SSM/V undergraduate seniors are attending public colleges, are male, African American, first generation, transfer students, distant learners, older and/or have a disability—these characteristics were more evident with combat-exposed SSM/V [2]. Some National Guard and active duty SSM/V have the additional challenge of studying full time while concurrently serving in the military. This means that there is a large population of weekend-soldiers that can be “activated and deployed often with very little advance notice and no consideration of academic schedules, deadlines or students' enrollment status” ([3], p. 28). Moreover, in a systematic review of SSM/V in higher education, Barry, Whiteman, and Wadsworth [4] summarized that combat exposed SSM/V were more likely to have PTSD symptoms, psychosomatic symptoms, suicide thoughts, intimate partner strain, and to engage in high-risk health behaviors. Moreover, SSM/V binge drinking was differentially associated with problem drinking [5] than civilian classmates and to be motivated by “coping” with symptoms of PTSD [6]. PTSD is also positively and significantly associated with *alienation on campus* [4,7,8]. Approximately one third of the 2.6 million who have served in the military Post 9/11 were having some cognitive-emotional problems or were using poor coping strategies in response to combat exposure [9]. These difficulties may interfere with their educational success [10].

2. Background

Veterans exposed to horrific combat represent a special population of returning students. Ackerman, DiRamio and Mitchell [11] conducted in-depth interviews of 25 SSM/V and found that returning Veterans had matured from combat experiences. As one serviceman aptly put it, “military members do serious things and that doing serious things becomes good preparation for being a serious college student” ([11], p. 7). However, the combat exposed SSM/V reported that they experienced constant reminders of the horrors of war. Given that trauma reminders trigger emotional and neurological symptoms, the students, according to Ackerman *et al.*, are at a ubiquitous risk of losing attention and concentration when in class or while studying.

The American Psychiatric Association's updated *Diagnostic and Statistical Manual of Mental Disorders 5* categorized PTSD symptoms into four distinct diagnostic clusters—re-experiencing, avoidance, negative cognitions and mood, and arousal.

Re-experiencing covers spontaneous memories of the traumatic event, recurrent dreams related to it, flashbacks or other intense or prolonged psychological distress. Avoidance refers to distressing memories, thoughts, feelings or external reminders of the event. Negative cognitions and mood represents myriad feelings, from a persistent and distorted sense of blame of self or others, to estrangement from others or markedly diminished interest in activities, to an inability to remember key aspects of the event. Finally,

arousal is marked by aggressive, reckless or self-destructive behavior, sleep disturbances, hyper-vigilance or related problems [12].

Although the majority of combat Veterans recover from trauma exposure, in a population-based study one year post deployment, 19.1% of Iraq Veterans and 11.3% of Afghanistan and other combat Veterans met full diagnostic criteria for Post-Traumatic Stress Disorder (PTSD) [13]. The Department of Defense [14] initiated a population-wide screening at two time points, immediately on return from deployment in Iraq war and three to six months later; it was found that 27.4% of soldiers screened positive for mental health risk—one or more positive screens for depression, PTSD, suicidal ideation, interpersonal conflict, or aggression ideation. Specific to college students, Barry, Whiteman, Wadsworth and Hitt [5] found that binge drinking among male combat exposed SSM/V was associated with greater mental health problems and a higher risk for developing alcohol dependency.

2.1. Resilience, Coping and Recovery

A strong recovery environment is based on the availability of social support and on the SSM/V capacity to approach (in contrast to avoid) social opportunities [15,16]. Luthar [17], in reviewing 50 years of research on resiliency, argued that the capacity to socially approach is the accumulation of one's life experiences and "strong relationships with those in one's proximal circle" ([17], p. 780). Consistent with Luther, Rutter [18] argued that resilience is not an inherited trait or personality, but a learned developmental process in the context of a social network that supports and reinforces adaptive coping. Moreover, Stratta *et al.* [19] studied 371 late adolescent survivors of the 2009 L'Aquila earthquake and developed a structural equation model to explain the complex relationships between coping strategies, resilience and outcomes in the face of a trauma. The model explained *resilience* (structured style, social resources, personal competence, family cohesion and social competence) as a buffer between coping strategies and outcome e.g., PTSD, Major Depressive Disorder, alcohol problems. Trauma may trigger emotional and disengagement coping skills, but when the individual employs problem focused (positive) coping skills, then "*resilience* allows it to buffer the stressors or even guides toward a more successful outcome" ([19], p. 55). The model by Stratta *et al.* categorizes coping strategies into three groups: (1) *Positive coping*, e.g., planning, acceptance, positive reframing, and active coping strategies; (2) *Emotional coping*, e.g., venting, self-blame, using emotional support and instrumental support; and (3) *Disengagement coping*, e.g., humor, behavioral disengagement, substance abuse, religion and denial. The model explained the complex relationships: positive coping (responses aim to change the relevant conflict or problem) increased resilience; resilience decreased PTSD symptoms, and emotional coping (responses that regulated the burdensome emotions of trauma) when interacting with positive coping skills increased resilience and thus decreased PTSD symptoms; whereas, emotional coping in the absence of positive coping increased PTSD symptoms.

2.2. PTSD and Social Functioning

Frueh, Turner, Beidel and Cahill [20] in a review of the literature, argued that the core feature associated with the clinical symptoms of combat related trauma is "maladaptive patterns of social functioning" ([20], p. 79). They further concluded that measurement tools to evaluate the complexities of social support for combat-exposed Veterans are under developed. Kashdan, Frueh, Knapp, Herbert

and Magruder's [21] evaluation of 733 Veterans, found a strong relationship between PTSD and Social Anxiety Disorder (SAD), which was characterized as distress in social interactions, social avoidance patterns and impaired social relationships. Combat Veterans with PTSD had a concurrent diagnosis of SAD at a rate of 22% as compared to veterans without PTSD at 1.1%. Although this association was correlational, it emphasized the salience of social functioning in facilitating post-combat recovery. In evaluating the National Sample of Female and Male Vietnam Veterans, King, King, Foy, Keane, and Fairbank [22], reported that functional social support was quite potent in offsetting the deleterious consequences of PTSD. Additionally, Kashdan *et al.* [21] found that alcohol dependency, but not abuse, was related to Veterans with PTSD-SAD co-morbidity. They propose that Veterans with SAD cope by one of two extremes—binge drinking or alcohol avoidance.

In a meta-analysis, Ozer, Best, Lipsey and Weiss [23] concluded that paucity of social support is a strong predictor of PTSD. In a principal-axis factor analysis of 83 male combat Veterans, Wilcox [24] observed four distinct sources of social support: significant other, family, military friends, and other friends. Specifically, she reported that perceived social support was associated with lower levels of PTSD symptomatology. This held true for significant other, family and military friends, but was not related to non-military friends. Several studies found that there is an inability on the part of SSM/V to connect with civilian peers in the classroom setting and that their preferred social support network consists of other SSM/V's [25–27]. In a panel longitudinal study over three consecutive semesters, Whiteman, Barry, Mroczek, and Wadsworth [25], found that SSM/V started with less emotional support than their civilian peers; however, *both* groups gained support over the academic year. In the end, with increased academic support both groups had better academic and mental health outcomes, but links between emotional support and better mental health were stronger for civilians. Whiteman *et al.* argue that emotional social support from peers may not be sufficient to buffer the psychological impact of combat for SSM/V. Moreover, the distinction of military friends compared to non-military peers is important; if a college is considering adding support for SSM/V, the program must bring together not just classmates, but specifically co-combatants.

2.3. Campus Climate

DiRamio, Ackerman, and Mitchell [27] found that there was a lack of institutional support for the SSM/V population; those surveyed frequently expressed conflicts on campus with their civilian peers and faculty and a much stronger desire to connect with other student veterans. In this study, most participants voiced an interest in student organizations for veterans on campus. Participants expressed a desire to “blend in” with their civilian classmates and showed reluctance to express themselves and their opinions because of negative experiences as SSM/V. However, they also wanted faculty to recognize their Veteran status and to make an effort to better understand their experiences and what they bring to the classroom. DiRamio *et al.* recommended a “comprehensive and holistic system” ([26], p. 92) for assisting Veterans.

In 2008, more than 200 college and university presidents, senior military leaders, SSM/V, campus representatives, and other stakeholders engaged in an open forum on the barriers SSM/V face as they make the journey to and through higher education [27]. The forum identified three primary hurdles to the success of SSM/V and active military member's academic success: (1) Accurate and timely information on benefits; (2) Recognition of military training and experience during the admissions

process; and, (3) A welcoming campus climate such as one-stop services, Veterans' Resource Centers, peer organizations, and faculty training. Khadaroo [28] conducted a national survey in 2009 to assess specific Veteran services that are in place to support military students. Of the 723 colleges and universities that responded, 57% provide specified services to military personnel and Veterans. However, only 32% had clubs for Veterans, and only 40% of the surveyed schools provided any formal training to faculty on the unique needs and opportunities of returning SSM/V. Lack of faculty training can have serious implications for the returning SSM/V. For example, Herrmann, Raybeck, and Wilson [29] reason that although professors may be attempting to facilitate open dialogue about government policies, they can cause SSM/V to feel isolated from classmates and defensive about their position. They argue that faculty members need to be more mindful of the way that they treat the SSM/V and their experiences. These findings were also highlighted by the focus group findings of DiRamio *et al.* [26] that some of the SSM/V reported that civilian students and faculty made pejorative remarks about members of the military during class. Feelings of exclusion or being perceived in a poor light are more likely to limit SSM/V interest in participating in campus activities. In 2010, the National Survey of Student Engagement [2] continued to report that SSM/V were less engaged and perceived lower levels of support from various members of the campus community. In part the difference, as explained by the National Survey, was that SSM/V—particularly combat veterans—had more family and financial obligations than their civilian cohort. The NSSE [2] suggests that colleges “seek ways to more effectively engage student veterans” ([2], p. 18).

2.4. Rationale for This Study

Since the passage of the *Post-9/11 Veteran Education Assistance Act* (Post-9/11 GI Bill), over two million student service members/ veterans have attended college [1]. Because this Bill appropriates in-state tuition at public institutions of higher learning, state colleges are at the forefront of providing an education to these SSM/V. Although, SSM/V are distinctly different than their civilian counterparts, there is a paucity of information to guide higher education services [4]. Therefore this study, in a cross sectional design, electronically surveyed 189 enrolled student service members/veterans and military students—non-combat and combat exposed—attending a large urban state university about their experiences of returning to school. Specifically, this study described the students' rates of PTSD and alcohol abuse, perceived stress, adaptive and non-adaptive coping strategies, resilience, social support, participation in campus activities, and perceptions of campus climate. Moreover, correlates of recovery were examined, and specific support strategies are presented.

3. Method

The study was conducted by a large urban state college's Collaborative that included the Department of Social Work, the Educational Leadership and Policy Studies, Student Veteran Services, and University Counseling Services.

3.1. Respondents

Three hundred and four (304) Student service members/veterans and active military students, in a campus of 35,000, were invited to participate in an SSM/V needs assessment survey in the fall semester

of 2010. Of those 304, 189 completed parts of the survey, but only 133 were complete enough to be included in the sample, for a 44% response rate.

3.2. Survey

The SSM/V needs assessment survey was a computerized self-administered questionnaire. The thirty-one-item questionnaire included demographic questions, history and current status of military service, list of disabilities, satisfaction with attending the large state university, use of campus-offered SSM/V resources, and experience of the social climate of the university. Nine items were selected from the literature as indicators of self-reported resilience. Presented on a five point Likert scale, respondents were asked how much they agree with the following statements: (1) I feel hopeful; (2) I am able to concentrate in class; (3) I have an emotional partner; (4) I have good friends; (5) I go out of my way to do fun things with my friends/family; (6) I have the energy to do activities; (7) I see hope in my future; (8) I am sleeping and eating well; and, (9) I am taking good care of myself. Each item of the index was used independently in the data analysis. Additionally nine coping questions, selected from the literature, were included in the survey as indicators of coping strategies. Presented on a five point Likert scale of “seek” to “avoid”, respondents were asked what they did when under stress: (1) Talked to a friend or relative; (2) Church/spiritual activities/meditation or prayer; (3) Exercise or physical play; (4) Watch TV/movies or listen to music; (5) Read/study or homework; (6) Drink alcohol or do drugs; (7) Think/draw or play music; (8) Have sex; and/or (9) Spend money or gamble. Furthermore, the survey included two standardized instruments, the Primary Care Screen for PTSD (PC-PTSD) to measure post-traumatic stress disorder and the CAGE Substance Abuse Screening Tool (CAGE), to measure alcohol abuse.

3.2.1. Primary Care Screen for PTSD

The PC-PTSD Screen was developed by Prins, Ouimette, Kimerling, Cameron, Hugelshofer, Shaw-Hegwer *et al.* [30] to assist primary care physicians in detecting posttraumatic stress disorder. The PC-PTSD is comprised of four items, each of which corresponds, respectively, to one of the four factors associated with the PTSD construct (*i.e.*, re-experiencing, avoidance, numbing, and hyperarousal). The Screen was initially standardized on 188 VA primary care Veteran patients—demonstrating overall quality, sensitivity, specificity, and efficiency with a Pearson’s correlation Coefficient of 0.83 [31]. Comparing to patient charts, the PC-PTSD correctly identified in 78% of cases. Prins *et al.* [30] recommend a cutoff score of two out of four to optimize sensitivity over efficiency. Calhoun, McDonald, Guerra, Eggleston, Beckham, and Straits-Troster [31] assessed the diagnostic accuracy of the PC-PTSD among Veterans that had served post 9/11 and concluded that its utility was well supported (sensitivity = 0.83; and specificity = 0.85). Cronbach’s coefficient alpha for the sample of this study is 0.732, indicating adequate reliability of the PC-PTSD scale.

3.2.2. CAGE

The CAGE was developed as a clinical tool to assess for lifetime alcohol abuse [32,33]. The rapid verbal screen has four items: (1) Have you ever felt you should cut down on your drinking? (2) Have

people annoyed you about your drinking? (3) Have you ever felt bad or guilty about your drinking? (4) Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)? A positive response on two or more items qualifies as positive for alcohol dependence [34]. Validity of the CAGE was standardized on a VA psychiatric inpatient population and has been found to range in sensitivity from 0.72 to 0.91 [35]. Although used commonly in a Veteran's population, Larimer and Cronce [36] in a review of the literature, argues that the CAGE may not be sensitive to the drinking patterns of college students. Adequate internal consistency reliability of the CAGE (Cronbach's alpha = 0.728) was reported in the current study.

3.3. Design and Procedure

The study is a descriptive, cross-sectional survey to assess the status and needs of SSM/V and active military post 9/11 college students attending a large, urban state college. Institutional Review Board (IRB) human subjects' protocol was secured for the study. The Student service members/veterans Services' coordinator provided the emails of all SSM/V currently enrolled on campus, and the survey was sent via the University's Student Voice web-based site. SSM/V were sent an: (1) introduction letter with the Informed Consent; and (2) a web-link to the anonymous survey. Additionally, a second request to participate was sent 30 days after the first request to capture any SSM/V who had not yet completed the survey, but wished to. All responses to the survey were collected independent of the respondent's email or other identifying information.

4. Results

4.1. Data Preparation and Analysis

The analysis of the number of variables with missing data was conducted for each case. Among the 189 surveys collected, 54 cases were deleted due to missing 50% or more of the data. An additional two cases missing about 35% of the data were deleted because their missing values are on key variables of the study. Therefore, the effective sample size for analysis was reduced to 133. In addition, the patterns of missing data were inspected by creating dichotomous grouping variables (0 for missing and 1 for valid) for all the variables. T-test showed that the missing and valid groups are statistically equivalent on other variables, indicating that the missing cases are random. In addition, the examination of a correlation matrix for the dichotomous grouping variables showed no strong pattern of systematic missing data, implying the patterns of missing data are ignorable.

The analysis of the current study aimed to assess the needs of the SSM/V by examining their level of stress, PTSD, alcohol abuse, social support, coping strategies, resilience, and campus experiences. As hypothesis testing is not the focus of the study, descriptive analysis and correlations are used to look at the frequencies, proportions, and bivariate relationships among these variables.

4.2. Sample Characteristics

Among the respondents, 67.9% reported that they were Veterans, 16.7% were currently in the military, and 52.3% were discharged or retired from the military. More than a third of the sample (38.9%) served in a combat zone: 34.6% in Iraq and 6.9% in Afghanistan. Males (64.7%) outnumbered females

(34.6%) in the sample. As for ethnic composition, 26.3% were Latino/a, 24.8% European American, 13.5% Asian American, and 12.8% African American. In addition, 27.8% of the respondents were juniors, 34.6% seniors, and 15.8% graduate students. Table 1 presents demographic information for the sample.

Table 1. Characteristics of the Sample (N = 133).

Demographic Variables	n	%
<i>Ethnicity</i>		
European American	33	24.8
Latino/a American	35	26.3
Asian American	18	13.5
African American	17	12.8
<i>College status</i>		
Freshman	5	3.8
Sophomore	15	11.3
Junior	37	27.8
Senior	46	34.6
Graduate	21	15.8
<i>Veteran</i>		
yes	89	67.9
no	42	32.1
<i>Currently in the military</i>		
yes	22	16.7
no	110	83.3
<i>Discharged or retired from the military</i>		
yes	67	52.3
no	61	47.7
<i>Served in a combat zone</i>		
yes	51	38.9
no	80	61.1
<i>GPA</i>		
2.6–3.0	39	29.3
3.1–3.5	52	39.1
Above 3.6	31	23.3

Numbers in cells are frequencies and percentages.

4.3. Stress, Coping, and Social Support

When the respondents were asked to rate their stress in the last month, 36.1% reported their stress as high, but 64.6% said they were able to manage their stress. On the other hand, respondents' anger level in the past month was relatively low, 57.1% rating their anger low and 15.1% rating high. In addition, they did not have many conflicts with others, 75.9% reporting low conflict and 6.8% high conflict in the previous month.

The respondents who reported having good friends were less likely to report stress ($r = -0.170$, $p = 0.049$) and more likely to be able to manage stress ($r = 0.179$, $p = 0.038$). In addition, they tended to

have less anger ($r = -0.324, p < 0.001$), and fewer conflicts with others ($r = -0.291, p = 0.001$). Moreover, the respondents who had high scores on the positive adaptation questions were likely to rate less stress ($r = -0.409, p < 0.001$), higher ability to manage stress ($r = 0.375, p < 0.001$), less anger ($r = -0.461, p < 0.001$), and fewer conflicts with others ($r = -0.477, p < 0.001$).

With regard to the coping strategies for their stress in the last month, 69.2% of the respondents sought to watch TV, movies, or listen to music, 63.1% sought to talk to a friend or relative, 62.4% sought to exercise or engage in physical play, and 42.1% sought to read or study. On the other hand, 69.2% avoided alcohol or drugs as their coping for stress, 62.4% avoided spending money or gambling, and 59.4% avoided church or spiritual activities.

Those who reported highly on positive coping items were more likely to seek to talk to a friend ($r = 0.318, p < 0.001$), exercise or physical activity ($r = 0.352, p < 0.001$), read or study ($r = 0.268, p = 0.002$), draw or play music ($r = 0.199, p = 0.020$), and have sex ($r = 0.297, p < 0.001$).

4.4. PTSD and Social Support

The Primary Care PTSD Screen (PC-PTSD) was used to assess if the respondents might have PTSD or trauma-related problems. About a third of the respondents (30.1%) reported on the PC-PTSD that they have had nightmares in the past month, and 21.1% said they tried hard not to think about or went out of their way to avoid situations that reminded them of the experience. In addition, 24.1% indicated that they were constantly on guard, watchful, or easily startled. In addition, 39.8% said that they felt numb or detached from others, activities, or their surroundings in the last month. Based on the PC-PTSD scoring criteria that indicate a positive response to more than two items on the scale should be considered “positive” PTSD, 17.3% of the study sample should be considered to possibly have PTSD and further investigations by a mental health professional may be warranted.

The respondents who reported having good friends were less likely to experience PTSD symptoms in the past 30 days ($r = -0.304, p < 0.001$). For example, “having good friends” was negatively associated with “tried hard not to think about it” ($r = -0.303, p < 0.001$), “were constantly on guard or watchful” ($r = -0.207, p = 0.017$), and “felt numb or detached from others” ($r = -0.316, p < 0.001$). Combat-exposed respondents reported significantly more symptoms of PTSD ($M = 2.24, SD = 1.63$) than non-combat counterparts ($M = 1.38, SD = 1.51$): $t(122) = 2.98, p = 0.003$, mean difference = 0.86, 95% CI: 0.29 to 1.44, eta squared = 0.068, indicating moderate effect.

4.5. Drinking and Social Support

The CAGE questionnaire was used to identify alcoholic problems among the respondents. Of the sample, 66.9% said they drank in the last 30 days, 17.3% have felt they should cut down on their drinking, and 9.0% reported that people annoyed them by criticizing their drinking. In addition, 12.0% have felt bad or guilty about their drinking and 6.0% have drunk the first thing in the morning to steady their nerves or get rid of a hangover. According to the CAGE scoring criteria with a total score of 2 or higher as an indication of alcohol problem, 27.1% of the study respondents are considered clinically significant.

Scores on the CAGE produced positive associations with scores on the PC-PTSD ($r = 0.312, p < 0.001$). Particularly, alcohol consumption was more likely to be reported by those who have had

nightmares about the traumatic event ($r = 0.201, p = 0.020$) and were constantly on guard, watchful, or easily startled ($r = 0.225, p = 0.010$). In addition, the respondents who have experienced PTSD symptoms tended to feel that they should cut down on their drinking ($r = 0.313, p = 0.003$).

4.6. Resilience and Recovery

Nine items were used to measure resilience of the respondents. The majority of the sample (76%) reported that they felt hopeful and 85.7% said that they saw hope in their future. In addition, 54.9% indicated that they were sleeping and eating well, and 60.1% said that they were taking good care of themselves. Sixty percent of the respondents showed that they had the energy to do activities and 65.4% reported that they were able to concentrate in class. In terms of support networks, 63.2% said that they had good friends, 60.9% indicated that they went out of their way to do fun things with their friends or family, and 42.8% reported that they had an emotional partner.

Resilience was indicated to have a negative relationship with PTSD symptoms ($r = -0.461, p < 0.001$). Lower scores on the PC-PTSD were reported by the respondents who felt hopeful ($r = 0.383, p < 0.001$), had the energy to do activities ($r = -0.341, p < 0.001$), slept and ate well ($r = -0.399, p < 0.001$), and took good care of themselves ($r = -0.340, p < 0.001$). In addition, PTSD symptoms were less likely to be experienced by the respondents who were satisfied with their campus experiences ($r = -0.258, p = 0.003$) and able to concentrate in class ($r = -0.326, p < 0.001$). No significant association was found of PTSD symptoms with scores on the CAGE ($r = -0.056, p = 0.518$). Having good friends seemed to be helpful for recovery. Those who had good friends were more likely to feel hopeful ($r = 0.351, p < 0.001$), have the energy to do activities ($r = 0.288, p = 0.001$), sleep and eat well ($r = 0.248, p < 0.004$), take good care of themselves ($r = 0.226, p = 0.009$), and be able to concentrate in class ($r = 0.387, p < 0.001$).

4.7. Campus Experience

When the respondents were asked about their participation level in campus event or student activity, 30.8% of the respondents said that they have participated in at least one campus event or student activity, 28.6% said that they have never participated in any campus event or student activity, and 18.0% reported that they have frequently participated in campus events or student activities. With regard to their experience of the social climate on campus, 43.5% rated their classmates and other students on campus as welcoming toward Student service members/veterans, 55.0% rated staff as welcoming, and 57.3% rated faculty as welcoming toward SSM/V.

As for their satisfaction with the campus services, 43.6% of the sample agreed that the University offered adequate services to help them if they were struggling in their classes and 45.1% agreed that the University offered adequate services to improve their study skills. In terms of their satisfaction with the instruction at the University, 63.1% agreed that the quality of instruction was excellent, and 63.9% agreed that the campus offered a variety of classes to meet their educational needs, and 27.3% agreed that their instructors generally understood about SSM/V issues. In addition, 45.1% agreed that the campus offered classes at times and on days most convenient for them. The majority of the respondents (75.2%) agreed that they felt that the campus was safe and secure, and 44.3% felt that student parking on the campus was sufficient. About half of the sample (51.1%) thought that academic advising on

campus met their educational and career needs, and 55.6% agreed that available financial aid and Student service members/veterans educational benefits were sufficient to meet their needs.

Overall, 76.0% of the respondents were satisfied with their experiences at the University, 73.7% described the campus as meeting their expectations, 71.4% indicated that they would like to enroll at the University again, and 70.5% would consider joining a campus club for Student servicemembers/veterans and their families. Higher satisfaction of the experiences at campus was more likely to be reported by those who had good friends ($r = 0.267, p = 0.002$) and had high scores on resilience items ($r = 0.221, p = 0.011$).

In summary, Table 2 reports correlations of have good friends, resilience, stress, manage stress, PTSD, CAGE and satisfaction with campus experiences.

Table 2. Correlations among the Variables in this study

Variable	Have Good Friends	Resilience	Stress	Manage Stress	PTSD	CAGE	Satisfaction with Campus Experiences
1. Have good friends	—						
2. Resilience	0.611 **	—					
3. Stress	-0.170 *	-0.409 **	—				
4. Manage stress	0.179 *	0.375 **	-0.335 **	—			
5. PTSD	-0.304 **	-0.461 **	0.339 **	-0.250 **	—		
6. CAGE	0.017	-0.056	0.033	-0.013	0.312 **	—	
7. Satisfaction with campus experiences	0.267 **	0.221 *	-0.107	0.128	-0.258 *	-0.012	—

“—” indicates that the column and row variable is the same; numbers in cells represent Pearson correlation coefficients and 2-tailed probabilities; * $p < 0.05$, ** $p < 0.01$.

5. Conclusions

This study explored the experiences, resilience and self-identified coping strategies of student service members/veterans in a large public college. Although a third of the military students reported their stress as high, two thirds said that they were able to manage their stress level effectively. SSM/V with a network of social support experience less stress, are less angry and are in fewer conflicts with others. The students who report to be coping well report managing stress by watching TV or movies, listening to music, seeking-out friends, exercising, reading or studying, and/or having sex. They also actively avoid using alcohol or drugs. On a positive note, a remarkable 85.7% of the SSM/V saw hope in their future. Overall, the majority of the SSM/V were satisfied with their college experience and indicate that they would enroll at the University again. Their perceptions of the social climate on campus were mixed. Although less than half of the SSM/V perceived classmates as welcoming, more than half perceived faculty as welcoming toward them. Only a third of those surveyed agreed that their instructors have an understanding about SSM/V issues.

5.1. Challenges Facing SSM/V

SSM/V attending college are distinctly different than their civilian counterparts—facing many challenges. Compared to civilian students, combat exposed SSM/V are more likely to have PTSD

symptoms, psychosomatic symptoms, suicide thoughts, intimate partner strain, and to engage in high risk health behaviors [4]. A concerning risk behavior is alcohol abuse. Milliken [37] in a large longitudinal study found that returning combat veterans have a 12%–15% rate of problematic drinking. Suicides in a military population are even more alarming. According to the January 2014 Veterans Health Administration report [38]: “Veterans comprise 20% of national suicides, with approximately 22 veterans dying by suicide every day”. PTSD is also positively and significantly associated with alienation on campus [4,7,8].

5.2. Recommendations for Colleges to Support SSM/V

Institutions of higher education and particularly public colleges, given the structure of the Post 9–11 Bill, are in a position to support the recovery of Veterans. To improve campus climate, DeRamio, Ackerman, and Mitchell [26] recommend that colleges conduct trainings to educate faculty, civilian students and staff on the experiences and challenges of SSM/V. Colleges can help to alleviate alienation on campus of SSM/V by supporting Veteran clubs and organization on campus. Similar to our findings, Whiteman *et al.* [25] found that emotional social support of SSM/V was positively correlated with better mental health outcomes, however they argued that for combat-exposed veterans social support may not be sufficient to buffer against the adverse psychological impact of combat. College based counseling services need to implement evidence-based interventions in the treatment of PTSD, major depression, substance abuse, and suicide prevention. Kitchiner Wilcox, and Bisson [39] in a systematic review and meta-analysis of randomized controlled trials covering 20 databases, concluded that trauma-focused psychological therapies are likely to be effective with combat-related PTSD; specifically, Cognitive Behavioral Therapy (CBT), for insomnia; CBT, Eye Movement Desensitization and Preprocessing (EMDR), and Cognitive Processing Therapy (CPT), for PTSD. Additionally, Prolonged Exposure Therapy (PET) delivered in a VA mental health clinic was found effective in treating PTSD [40]. Kitchiner *et al.* recommend that trauma-focused interventions should be offered to all veterans with chronic PTSD; a treatment that college-based counselors could be trained to provide. In contrast, Kitchiner *et al.* found in their review of the published studies that the interventions specific to treating Veteran’s depression lacked efficacy and recommended alternative treatments that have been shown to be effective in civilian populations such as CBT and interpersonal psychological therapy, IPT. Regarding suicide prevention, SAMHSA in partnership with the National Suicide Prevention Lifeline [41] connects veterans in crisis and their families and friends with qualified Department of Veterans Affairs (VA) responders by phone, online chat, or text. College campuses could advertise, e.g., social media, poster campaign this potentially lifesaving number. In regards to alcohol and other drug abuse, a rationale argument can be made for coordinating evidence-based PTSD treatment with substance abuse treatment, given the association [6] of alcohol use as a coping strategy to avoid reminders of combat. Valuable resources for college counseling services to keep abreast of substance abuse outcome research in a Veteran population are SAMHSA.org and The Center for the Treatment and Study of Anxiety.

5.3. Areas for Future Research

Scientific inquiry into the role and strategies of colleges to support the success of SSM/V and military students is wide open, to start: (1) correlational studies examining the relationships between service-roles and college majors; (2) descriptive studies of the “fields of study” that SSM/V are uniquely

prepared for, or have aptitudes for, that can be translated into successful civilian careers; and (3) pilot study to explore best practices of college counselors to council SSM/V toward career success. A second line of inquiry that could reap valuable information is the experiences, hidden disabilities, and the unique needs of wounded women warriors. Moreover, there is much work to be done to better understand social support networks for men and women warriors. In exploratory studies, focus groups and in-depth interviews could be employed to study the characteristics and meaning in co-combatant relationships, post war. Knowledge of how these relationships work could help college counselors and administrators to facilitate social support networks for SSM/V and military students—a key to their success.

5.4. Limitations

The weakness of this study's methodology is shared with all cross-sectional correlational studies—they enable one to examine relationships between variables, but cannot establish causal relationships. Additionally, using two standardized and frequently utilized tools—the CAGE and the PC-PTSD screens—allowed us to compare findings to previous studies; however, the use of non-standardized items to capture specific indicators, “keys” of positive adaptation, could not. Furthermore, given the salience of social support, future studies should use a standardized instrument to measure this construct.

This study is not representative of all U.S. colleges; though large, it is only one urban state-level university. Selection bias is also of concern, given the low 44% response rate. Furthermore, this study did not collect data on the non-responders. On the other hand, this study's strengths include asking veteran and active military students directly, through the needs assessment survey, about their experiences, participation and perceptions of attending college.

5.5. Summary

To summarize, colleges can be a meaningful pathway from combat to recovery—not only by teaching knowledge and skills to help veterans build a future, but also by providing social opportunities to facilitate mutual Veteran support; trainings to educate faculty, civilian students and staff on the experiences and challenges of SSM/V; and evidence-based interventions to alter the psychological impact of combat.

Author Contribution

Susan M. Love wrote the survey, managed the project and wrote the majority of the manuscript. Amy Levin collaborated with CSUN's programs that support SSM/V on campus, distributed the survey and edited the paper. Hyun-Sun Park conducted the data analysis, wrote the result section, and helped to formulate the discussion section of the paper.

Conflicts of Interest

The authors declare no conflict of interest.

References

1. Cassandra Dortch. "The Post-9/11 Veterans Educational Assistance Act of 2008 (Post-9/11 GI Bill): Primer and Issues." Available online: <https://www.fas.org/sgp/crs/misc/R42755.pdf> (accessed on 21 September 2015).
2. National Survey of Student Engagement. "Major differences: Examining student engagement by field of study—Annual results 2010." Available online: http://nsse.indiana.edu/NSSE_2010_Results/pdf/NSSE_2010_AnnualResults.pdf (accessed on 22 September 2015).
3. Robert Ackerman, and David DiRamio. "Creating a Veteran-Friendly Campus: Strategies for Transition and Success." In *New Directions for Student Services*. Edited by Robert Ackerman and David DiRamio. San Francisco: Jossey-Bass, 2009.
4. Adam E. Barry, Shawn D. Whiteman, and Shelley MacDermid Wadsworth. "Student service members/veterans in higher education: A systematic review." *Journal of Student Affairs Research and Practice* 51 (2014): 30–42.
5. Adam E. Barry, Shawn D. Whiteman, Shelley MacDermid Wadsworth, and Stacie Hitt. "The alcohol use and associated mental health problems of student service members/veterans in higher education." *Drugs: Education, Prevention and Policy* 19 (2012): 415–25.
6. Michael A. Cucciare, Maura Darrow, and Kenneth R. Weingardt. "Characterizing binge drinking among U.S. military Veterans receiving a brief alcohol intervention." *Addictive Behaviors* 36 (2011): 362–67.
7. Corey B. Rumann, and Florence A. Hamrick. "Supporting Student Veterans in Transition." In *New Directions for Student Services*. Edited by Robert Ackerman, and David DiRamio. San Francisco: Jossey-Bass, 2009, pp. 25–34.
8. Marta Elliotta, Carlene Gonzalez, and Barbara Larsen. "U.S. Military Veterans Transition to College: Combat, PTSD, and Alienation on Campus." *Journal of Student Affairs Research and Practice* 48 (2011): 279–96.
9. Terri Tanielian, and Lisa H. Jaycox. "Invisible Wounds of War: Psychological and Cognitive Injuries, their Consequences and Services to Assist Recovery." Available online: <http://www.rand.org/multi/military/veterans.html> (accessed on 3 May 2015).
10. Thomas E. Church. "Returning veterans on campus with war related injuries and the long road back home." *Journal of Postsecondary Education and Disability* 22 (2009): 43–52.
11. Robert Ackerman, David DiRamio, and Regina L. Mitchell. "Transitions: combat veterans as college students." In *New Directions for Student Services*. Edited by Robert Ackerman and David DiRamio. San Francisco: Jossey-Bass, 2009, pp. 5–14.
12. American Psychiatric Association. "Posttraumatic Stress Disorder." Available online: <http://www.dsm5.org/Documents/PTSD%20Fact%20Sheet.pdf> (accessed on 3 May 2015).
13. Charles W. Hoge, Carl A. Castro, Stephen C. Messer, Dennis McGurk, Dave I. Cotting, and Robert L. Koffman. "Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care." *New England Journal of Medicine* 351 (2004): 13–22.
14. Charles S. Milliken, Jennifer L. Auchterlonie, and Charles W. Hoge. "Longitudinal Assessment of Mental Health Problems among Active and Reserve Component Soldiers Returning from the Iraq War." *Journal of American Medical Association* 298 (2007): 2141–48.

15. Madhavi K. Reddy, Laura A. Meis, Christopher R. Erbes, Melissa A. Polusny, and Jill S. Compton. "Associations among experiential avoidance, couple adjustment, and interpersonal aggression in returning Iraqi war veterans and their partners." *Journal of Consulting & Clinical Psychology* 79 (2011): 515–20.
16. Robert H. Pietrzak, and Steven M. Southwick. "Psychological resilience in OEF-OIF Veterans: Application of a novel classification approach and examination of demographic and psychosocial correlates." *Journal of Affective Disorders* 133 (2011): 560–68.
17. Suniya S. Luthar. "Resilience in Development: A synthesis of research across five decades." In *Developmental Psychopathology*, 2nd ed. Edited by Dante Cicchetti and Donald J. Cohen. New York: Wiley, 2006, vol. 3, pp. 739–95.
18. Michael Rutter. "Psychosocial resilience and protective mechanisms." In *Risk and Protective Factors in the Development of Psychopathology*. Edited by Jon Roll, Dante Cicchetti, Keith H. Nuechterlein and Sheldon Weintraub. New York: Cambridge University Press, 1990.
19. Paolo Stratta, Cristina Capanna, Liliana Dell'Osso, Claudia Carmassi, Sara Patriarca, Gabriella Di Emidio, Ilaria Riccardi, Alberto Collazzoni, and Alessandro Rossi. "Resilience and coping in trauma spectrum symptoms prediction: A structural equation modeling approach." *Personality and Individual Differences* 77 (2015): 55–61.
20. B. Christopher Frueh, Samuel M. Turner, Deborah C. Beidel, and Shawn P. Cahill. "Assessment of social functioning in combat veterans with PTSD." *Aggression and Violent Behavior* 6 (2001): 79–90.
21. Todd B. Kashdan, B. Christopher Frueh, Rebecca G. Knapp, Renée Hebert, and Kathryn M. Magruder. "Social Anxiety Disorder in veterans primary care clinics." *Behaviour Research and Therapy* 44 (2006): 233–47.
22. Daniel W. King, Lynda A. King, David W. Foy, Terence M. Keane, and John. A. Fairbank. "Posttraumatic stress disorder in a national sample of female and male Vietnam veterans: Risk factors, war-zone stressors, and resilience-recovery variables." *Journal of Abnormal Psychology* 108 (1999): 164–70.
23. Emily J. Ozer, Suzanne R. Best, Tami L. Lipsey, and Daniel S. Weiss. "Predictors of posttraumatic stress disorder and symptoms in adults: A meta-analysis." *Psychological Bulletin* 129 (2003): 52–73.
24. Sherrie Wilcox. "Social relationships and PTSD symptomatology in combat veterans." *Psychological Trauma: Theory, Research, Practice, and Policy* 2 (2010): 175–82.
25. Shawn D. Whiteman, Adam E. Barry, Daniel K. Mroczek, and Shelley MacDermid Wadsworth. "The development and implications of peer emotional support for student service members/veterans and civilian college students." *Journal of Counseling Psychology* 60 (2013): 265–78.
26. Robert Ackerman, David DiRamio, and Regina L. Mitchell. "From combat to campus: Voices of student-veterans." *NASPA Journal* 45 (2008): 73–102.
27. American Council on Education. "Serving Those Who Serve: Higher Education and America's Veterans." Available online: <http://www.acenet.edu/higher-education/topics/Pages/Supporting-Student-Veterans.aspx> (accessed on 3 May 2015).
28. Stacy Teicher Khadaroo. "With new GI Bill, a surge in veteran colleges." *Christian Science Monitor*, 31 July 2009. Available online: <http://www.csmonitor.com/USA/Military/2009/0731/p02s13-usmi.html> (accessed 22 September 2015).

29. Douglas Herrmann, Douglas Raybeck, and Roland B. Wilson. "College is for veterans too." *The Chronicle of Education* 55 (2008): A99.
30. Annabel Prins, Paige Ouimette, Rachel Kimerling, Rebecca P. Camerond, Daniela S. Hugelshofer, Jennifer Shaw-Hegwer, Ann Thrailkill, Fred D. Gusman, and Javaid I. Sheikh. "The primary care PTSD screen (PC-PTSD): Development and operating characteristics." *Primary Care Psychiatry* 9 (2003): 9–14.
31. Patrick S. Calhoun, Scott D. McDonald, Vito S. Guerra, A. Meade Eggleston, Jean C. Beckham, and Kristy Straits-Troster. "Clinical utility of the Primary Care—PTSD Screen among U.S. veterans who served since September 11, 2001." *Psychiatry Research* 178 (2010): 330–35.
32. John A. Ewing, and Beatrice A. Rouse. "Identifying the hidden alcoholic." Paper presented at the 29th International Congress on Alcohol and Drug Dependence, Sydney, Australia, 3 February 1970. Available online: <http://journals.cambridge.org/action/displayAbstract;jsessionid=4FEF1B034DC61378BF%20025923C00EB2E2.journals?fromPage=online&aid=5204876> (accessed on 3 May 2015).
33. John A. Ewing. "Detecting alcoholism: The CAGE Questionnaire." *Journal of the American Medical Association* 252 (1984): 1905–7.
34. Cheryl J. Cherpitel. "Screening for alcohol problems in the U.S. general population: Comparison of the CAGE, RAPS4, and RAPS4-QF by gender, ethnicity, and service utilization." *Alcoholism: Clinical and Experimental Research* 26 (2002): 1686–91.
35. D. Mayfield, and R. Johnston. "Screening techniques and prevalence estimation in alcoholism." In *Phenomenology and Treatment of Alcoholism*. Edited by William E. Fann. New York: Spectrum Publications, 1981.
36. Mary E. Larimer, and Jessica M. Cronce. "Identification, prevention, and treatment: A review of individual-focused strategies to reduce problematic alcohol consumption by college students." *Journal of Studies on Alcohol* 14 (2002): 148–63.
37. Charles S. Milliken, Jennifer L. Auchterloine, and Charles W. Hoge. "Longitudinal assessment of mental health problems among active and reserve component soldiers returning from the Iraq war." *Journal of the American Medical Association* 298 (2007): 2141–48.
38. Janet E. Kemp. *Suicide Rates in VHA Patients through 2011 with Comparisons with Other Americans and Other Veterans through 2010*. Washington: Department of Veterans Affairs, 2014.
39. Neil J. Kitchiner, Neil P. Roberts, David Wilcox, and Jonathan I. Bisson. "Systematic Review and Meta-Analyses of Psychosocial Interventions for Veterans of the Military." *European Journal of Psychotraumatology* 3 (2012): 1–16.
40. Peter W. Tuerk, Matthew Yoder, Anouk Grubaugh, Hugh Myrick, Mark Hamner, and Ron Acierno. "Prolonged exposure therapy for combat-related posttraumatic stress disorder: An examination of treatment effectiveness for veterans of the wars in Afghanistan and Iraq." *Journal of Anxiety Disorders* 25 (2011): 397–403.
41. Substance Abuse Mental Health Service Administration (SAMHSA). "Suicide Prevention." Available online: <http://www.samhsa.gov/suicide-prevention> (accessed on 3 May 2015).