

The Role of Social Support in Veterans' College Adjustment

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Abstract

The number of military service members and veterans entering college is increasing with the Post 9/11 GI Bill. Many returning service members arrive on college campuses battling physical or psychological disabilities. Little is known about current levels of support for student veterans on college campuses. Survey results from 128-student veterans/military at two- and four-year institutions were analyzed through multiple regressions. Results indicated that Post Traumatic Stress Disorder, unit support, and post deployment support contributed uniquely to the explanation of college adjustment. The current study supports previous research demonstrating the importance of perceived social support in dealing with life transitions and trauma. The results of the current study give institutions of higher education, psychologists and counselors insight into dealing with student veterans by indicating how critical perceived support is for successful transition.

Key Words:College adjustment, perceived social support, posttraumatic stress, veterans

1. Introduction

Psychologists and researchers believe that a critical component to trauma recovery is support from family, friends, and the greater community (Herman, 1997; Naparstek, 2004; Sherman, Zanotti, & Jones, 2005). Ongoing wars in Iraq and Afghanistan involving thousands of United States service members raise the likelihood that an increasing numbers of service members are and will be dealing with the aftermath of trauma related to war experiences. These increasing numbers make the need to better understand the role of perceived social support even more important. In the coming years, the number of military service members going to college is anticipated to increase with the implementation of the new Post 9/11 GI Bill providing military service members with additional college funding. Grossman (2009) has stated that based on prevalence rates, 40% of service members may be suffering from various physical and psychological traumas.

Military men and women deploy all over the world and face dangerous combat situations. Then they come home and find the battles are not over as they struggle to fit into civilian life. As Nancy Sherman (2010) writes, "The transitions are rarely seamless. For many, soldiering is not just a job or career; it is an identity, it is who they become. Leaving it behind is not easy" (p. 4). For many service members, the transition includes trying to fit in on college campuses, getting a degree, and then moving into successful careers and civilian life. For persons who have experienced a trauma, the presence or absence of social support can influence how they handle the resulting feelings of helplessness, horror, fear, and the level of distress and the effect these feelings have on their life (Cantrell & Dean, 2005). To better support service members who are making the transition to college life, we need to have a better understanding of who they are and what their military and college experiences have been. Even more important is research into the role that their military experiences will have on their college experiences and transition to college life.

This study examines how military deployments, especially multiple deployments, impacts veteran' transition and adjustment to college life. The transition from a military lifestyle, which might have included deployment to a combat zone, to a college lifestyle is a difficult one to navigate. Many of these service members work their way through this life transition to college while also dealing with various added challenges such as posttraumatic stress disorder (PTSD), traumatic brain injuries(TBIs), and other physical and mental health struggles. In addition, research has found that those veterans who have PTSD reported significantly lower partner satisfaction and less family cohesion making their transition even more difficult(Tsai, Harpaz-Rotem, Pietrzak, & Southwick, 2012).

This study examined how veteran's deployment experiences and history—the number of deployments and the types of situations faced while deployed—related to that individual's adjustment to college life. Further information was gathered to examine how diagnoses of PTSD, TBI, and physical injuries might have compounded the adjustment from military to college life. In addition, because past research has shown how important support is during and after experiencing traumatic events including wartime (Church, 2009; Fikretoglu, Brunet, Poundja, Guay, & Pedlar, 2006), this study examined how unit support while deployed and postdeployment support might have mitigated this transition and adjustment to college for these individuals.

2. Methods

2.1. Study Design

This study was conducted as a correlational research design to collect data and examine any identifiable correlational pattern between reported military deployment experiences and a service member's subsequent adjustment to college life. Since little research has been conducted specifically related to how military deployments might impact college adjustment, various common aspects of military deployments examined in the literature were selected for inclusion in the current study. These aspects—support, PTSD, combat experiences, number of deployments, and injuries—were then examined in relation to self-reported college adjustment measured via a selected instrument to see what if any correlations there were between the military deployment aspects and college adjustment. The data for the study were collected electronically via an online survey.

2.2. Study Procedures

Veterans' representative(s) at two-year and four-year institutions of higher learning in the Rocky Mountain region were invited to ask student veterans to participate. An email invitation with a link and instructions to access the online survey was provided to the veterans' representatives who agreed to invite student veterans to participate. The veterans' representatives forwarded an email invitation out to the appropriate listservs at their institutions.

2.3. Study Questions

The study investigated the following six research questions. To what extent do previous military deployment experiences relate to a military service member's adjustment to college life at institutions of higher learning? Are military service members who have been deployed to combat zones multiple times more likely to have adjustment difficulties in college at institutions of higher learning than military service members deployed only once to a combat zone? To what degree does level of PTSD relate to a military service member's adjustment to college life at institutions of higher learning? To what extent does having experienced a physical injury or injuries such as traumatic brain injury, amputation, or other permanent physical disability relate to a military service member's adjustment to college life at institutions of higher learning? To what degree does level of unit support relate to a military service member's adjustment to college life at institutions of higher learning? And, to what extent does level of post-deployment support relate to a military service member's adjustment to college life at institutions of higher learning?

2.4. Measures

Measures for this study included (a) number of military deployments as reported on the demographic questionnaire; (b) PTSD symptoms as reported on the Posttraumatic Stress Disorder Checklist-Military version (PCL-M; Weathers, Litz, Herman, Huska, & Keane, 1993); (c) TBIs and other physical injuries as reported on the demographic questionnaire; (d) types of combat experiences as reported on Section I: Combat Experiences of the Deployment Risk and Resilience Inventory (DRRI; King, King, & Vogt, 2003); (e) level of unit support as measured by Section F: Unit Support of the DRRI; and (f) level of post deployment support as measured by Section L: Post deployment Support of the DRRI. The dependent variable for this study was level of college adjustment as measured by the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1999) overall score. The survey consisted of 151 total questions: 38 for the DRRI, 17 for the PCL-M, 67 for the SACQ, and 29 for the Demographic and Background Questionnaire. The average completion time to take the entire survey was 15 to 20 minutes.

For the three measures from the DRRI, the scores were summed and the higher scores were indicative of greater levels of that measure; higher scores on combat experiences reflected increased numbers of combat experiences, higher scores on unit support indicated higher levels of perceived unit support, and higher scores on post deployment support reflected higher levels of perceived social support. The scores on the combat experiences measure ranged from 0 to 10. For the unit support measure, possible scores ranged from 12 to 60. For post deployment support, the scores ranged from 15 to 75. In the current study, exploratory factor analysis (EFA) was conducted with all three sections of the DRRI. The items loaded onto the one expected factor for each of the DRRI scales. Reliability statistics for the DRRI and other measure for this study are reported in Table 1. The initial EFA for the SACQ resulted in multiple factors; therefore, Promax with Kaiser Normalization rotation was used to force four and five factors. Based on the sample population and the study, the forced five factor model was determined to be a better fit than the forced four factor model that resulted or the four factors identified by Baker and Siryk (1999). The current sample of military service members tended to be older and have more life experiences than traditional age college freshmen populations for which the SACQ was originally developed and normed. Although the use of the SACQ has been expanded beyond freshmen, there has not been extensive use with nontraditional student populations. The different factors that resulted in the current study indicated some clear distinctions between traditional age college freshmen and student veterans and military populations for college adjustment.

For this study, the five factors identified in the EFA were similar to the original four subscales with some additional nuances and divisions. The first and largest factor was the personal-emotional adjustment subscale identified by the authors (Baker & Siryk, 1999); some additional items seemed to fit more with aspects of TBI, PTSD, depression, and anxiety, e.g., problems with concentration and functioning during exams and loneliness. The second factor was mostly related to academic performance from a personal perspective, i.e., if the respondent was interested in their course work and had well-defined academic goals. Some, but not all, of the social adjustment subscale items of the SACQ comprised the third factor for this sample. Most of the remaining academic adjustment items formed the fourth factor in the current sample and were related to general or overall academic adjustment. The remaining factor aligned closely with Baker and Siryk's (1999) attachment subscale that was designed to measure attachment to college and the particular institution.

As a result of the EFA looking differently and items loading on the above five forced factors, only an overall score for the SACQ was utilized for this study as a measure of college adjustment. Three of the original 67 items were excluded because they related to only undergraduates or students living in residence halls. Since the items did not pertain to some of the participants, they were skipped. Therefore, in the current study, 64 items were utilized to measure college adjustment. A respondent had to answer at least 60 of the items for inclusion in the statistical analysis. This resulted in possible scores ranging from 60 to 576; higher scores indicated higher levels of college adjustment.

3. Participants

Participants were veterans attending Rocky Mountain region two- and four-year institutions of higher learning. The invitation email specified that only individuals who had been deployed in wartime or in a peacekeeping mission were being asked to participate. Further, the invitation email asked for participants who had served in active duty or in the National Guard or Reserves in any branch of the United States services except the Coast Guard. The email invitation also asked those who received it to pass it along to others who might meet the selection criteria, resulting in snowball sampling beyond the three participating institutions. The number of participants for full statistical analysis was 128, ages 21 to 69. The average age was 30.26 ($SD = 8.492$). In keeping with the majority of the military services comprised of men, the majority of the sample was identified as males (81.5%), 17.8% were identified as females, and one individual was identified as transgender.

Of the individuals who participated in the research, exactly half of them had served or were serving in the United States Army, followed by 25.3% in the Marines. Participants who completed the demographic and background section, 91.9% had been deployed no more than three times, 80.9% had been deployed only once or twice, and over half had been deployed just once. When asked about the type of deployments, 95.2% indicated they had been deployed in combat zones. About 75% of participants indicated having served in Iraq or Operation Iraqi Freedom (OIF) once or more. Another 18.5% indicated deployments to Afghanistan or Operation Enduring Freedom (OEF).

An additional 25.3% indicated other locations in southwest Asia such as Kuwait, Saudi Arabia, Qatar, and United Arab Emirates. Participants were specifically asked if they had suffered any permanent physical injuries while they were deployed in the military and if they had been diagnosed with PTSD, 25.4% indicated they had been diagnosed with PTSD. Additionally, 35% stated they had sought mental health counseling of some sort including chaplains and marital counseling.

4. Data Analysis

Multiple regression analysis was run on the data after factor analysis was completed to answer all six of the research questions. Since current literature does not provide any basis for establishing priority among independent variables, simultaneous entry multiple regression was used in which all six explanatory variables (i.e., combat experiences, number of deployments, PTSD, prior injury, unit support, and post deployment support) were entered into a single regression model with SACQ total scores as the dependent variable. Prior to interpreting the regression results, several diagnostic procedures were conducted to assess tenability of the regression assumptions: linearity, homoscedasticity, normality and randomness of residuals, and absence of measurement error. A histogram of residuals assessed the normality assumption and a scatterplot between standardized predicted values and standardized residuals assessed linearity, homoscedasticity, and randomness of residuals. An absence of any apparent pattern in the scatterplot would suggest these assumptions were met. In addition, reliability estimates based on Cronbach's alpha (see Table 1) were used to determine the extent to which the absence of measurement error assumption was met. The final diagnostic procedures included checking for possible outliers and collinearity among the independent variables. Tests for the overall model R^2 value and for individual regression coefficients were conducted at $\alpha \leq .05$.

In addition to the multiple regression conducted to answer the research questions, three independent samples t -tests were run on the data. The first was used to check for any significant differences in data derived from respondents attending two-year institutions versus those attending four-year institutions of higher learning. A second independent samples t -test was used to examine the mean differences in college adjustment (as measured by SACQ total score) based on the dichotomous variable of self-reported PTSD reported on the demographic and background questionnaire. The third independent samples t -test was conducted to compare self-reported PTSD diagnosis in the demographic and background section with scores from the PCL-M. These latter comparisons were conducted as validity checks on the accuracy of the self-reported PTSD. Prior to examining results of these supplementary t -tests, Levene's test was used to assess the homogeneity of variance assumption and skew/kurtosis values were examined with respect to the normality assumption. Skew/kurtosis values falling within + or - 1.0 suggested relatively normal distributions (Huck, 2008). To maintain the desired type 1 error rate ($\alpha \leq .05$) across the three t -tests, each test was conducted using a Bonferroni-adjusted alpha of .017.

Collectively, combat experiences, number of deployments, PTSD symptoms, prior injury, unit support, and post deployment support explained a statistically significant proportion of the variance in college adjustment among military service members, $R^2 = .561$, $F(6,121) = 25.78$, $p < .05$. Thus, these variables accounted for over half the variation in the dependent variable of respondents' college adjustment (as measured by total score on the SACQ). However, as shown in Table 2, only PTSD symptoms, unit support, and post deployment support contributed uniquely to explaining college adjustment. Student veterans and military with higher levels of PTSD symptoms tended to have lower levels of college adjustment, while individuals who reported higher levels of unit support and post deployment support reported higher levels of college adjustment.

4.1. Results

Higher reported levels of unit support while deployed (as measured by Section F of the DRRI) contributed to explaining college adjustment at a statistically significant level, $p = .016$. Those individuals who reported higher levels of unit support while deployed reported significantly higher levels of college adjustment as measured by the SACQ total score. In terms of post-deployment support (as measured by Section L of the DRRI) contributed to explaining variance in college adjustment at a statistically significant level, $p < .05$. As predicted, those individuals who reported higher levels of post deployment support also reported higher levels of college adjustment as measured by the total score on the SACQ. Furthermore, individuals who reported higher levels of PTSD reported significantly lower levels of college adjustment (as measured by the SACQ total scores). PTSD contributed to variation in college adjustment at the $p < .05$ level of significance (see Table 2).

In terms of military service members facing more dangerous situations while deployed, as reported by the DRRI, no significance was found. Therefore, based on the results, those facing more dangerous combat experiences did not report lower college adjustment scores. In terms of deployment to combat zones, as measured by the demographic questionnaire no significance was found. Lastly, reporting a permanent physical injury did not contribute to explaining variance in college adjustment at a statistically significant level. Three independent samples *t*-tests were conducted. The first independent samples *t*-test found no significant difference between the two groups, two year and four year colleges, of student veterans and military in the current study. The second independent samples *t*-test was used to examine differences in college adjustment based the dichotomous variable of self-reported PTSD from the demographic and background questionnaire. Using the Bonferroni-adjusted alpha of .017, statistical significance was found, indicating a difference in college adjustment between those respondents who self-reported having a PTSD diagnosis versus those who did not self-report having PTSD in a negative direction. Those who self-reported having a diagnosis of PTSD had lower reported levels of college adjustment than respondents who did not report having a diagnosis of PTSD.

The final independent samples *t*-test was utilized to compare scores on the PCL-M with the dichotomized self-reports of PTSD diagnosis from the background and demographic questionnaire. For this *t*-test, Levene's test for equality of variances was not met, indicating a violation of homogeneity of variance. Therefore, an alternative and more robust *t*-test was used for which equal variances were not assumed. Results are reported in Table 3. Statistical significance was found, indicating differences between self-reported PTSD and the level of PTSD symptoms from the PCL-M. This suggests a statistically significant mean difference on the PCL-M scores between those who did versus those who did not self-report having PTSD. Those who self-reported having PTSD had significantly higher means on the PCL-M than those who did not self-report having PTSD. In addition, the mean for those who did not self-report PTSD diagnosis was 29.24 ($SD=12.88$), indicating that the majority for those who reported they did not have a PTSD diagnosis fell below the PTSD "positive" cutoff of 50 plus or minus one standard deviation. For the group that reported PTSD diagnosis, the mean was 51.47 ($SD=17.25$), indicating that the average score for this group fell above the cutoff for PTSD "positive." Thus, the third independent samples *t*-test confirmed that the self-reported yes/no PTSD question from the demographic and background questionnaire was consistent with scores on the PCL-M.

5. Implications

Many of the experiences in combat fall outside the realm of the natural order and are difficult for the service members to express even to their loved ones. This struggle can seem overwhelming when trying to relate to traditional age college classmates, professors, and college administrators. Implications for the current study dealt with how does perceived social support relate to supporting and allowing student veterans tell their stories in college venues so that they can move forward, individually and collectively, to find some measure of recognition, restitution, resolution, and redemption. How can College communities come together to support this process and help integrate veterans back into only college communities as well as the larger civilian communities to which they are returning? The results of the current study direct college communities toward the critical importance of social support in this transition.

The results of the current study illustrate that college adjustment for nontraditional groups of students, such as student veterans is difficult to measure and does not cleanly fit the models and factors of many traditional measurement instruments such as the Student Adaptation to College Questionnaire (SACQ). There are many nuances to college experiences and college adjustments that are more complex when the participants are individuals with additional life experiences such as combat, spouses, children, and compounded financial burdens. Future research can include a measure designed specifically on the adaptation of veterans to college. An increased interest in student veterans and adjustment, as well as an overall focus on returning OEF and OIF veterans, has shown a spotlight on some of the mental health limitations related to this population. These limitations and concerns make it imperative that there be an ongoing dialogue between the organizations and agencies working with student veterans and military. Institutions of higher learning need to work with the VA and military entities (such as National Guard and reserve units) to develop a streamlined referral process between their medical and mental health care providers to ensure timely and quality care; this includes testing for cognitive problems related to Traumatic Brain Injuries (TBIs) so that student veterans have access to necessary resources before they fail classes.

For institutions of higher learning developing programs and services, as well as therapists who are working with student veterans and military in university counseling centers and VAs, it is important to remember that social support can take many forms. According to the National Child Traumatic Stress Network and the National Center for PTSD's Field Operations Guide for Psychological First Aid (Brymer et al., 2006), the main types of social support are emotional support, social connection, feeling needed, reassurance of self-worth, reliable support, advice and information, physical assistance, and material assistance.

Comprehensive programs that incorporate many facets of support are likely to be more successful. As Rose (2010) noted:

The key idea is to treat a complex educational issue in a comprehensive and integrated way. To respond adequately to educational needs, the program has to address psychological, social, and economic needs as well. And, hand in glove, some social and psychological problems—inability to concentrate, feelings of intellectual inadequacy—don't fully manifest themselves unless one is in a classroom, immersed in English or math or poli sci. (p. 1)

Possible future directions leading from the current study include a more thorough examination of student veterans and military including (a) an adapted measure for college adjustment that specifically relates to their transition experiences, (b) a specific measure to assess for TBIs, and (c) concentration on combat related deployments only. Suggested future studies include examinations focused on college transition experiences specifically for female military service members and for National Guard and reserve members. Additionally, there may be some distinct differences in college adjustment for service members who are pursuing degrees online. Also, beyond the scope of the current study, was an examination of the impact of military deployments on college adjustment for family members including spouses and children of military service members who are or have been deployed to combat.

6. Conclusion

The current study analyzed findings from a survey conducted with military service members attending institutions of higher learning to examine various aspects of their past military deployments on college adjustment. Interpretations of the significance of PTSD and perceived social support, in the form of both unit support and postdeployment support, and how these findings are related to previous research in PTSD and support were investigated. The results of the study point in the direction of assessing perceptions of unit support and postdeployment support to mitigate the effects of trauma for student veterans. In addition, the findings of the current study provide evidence for the importance of unit support and postdeployment support to mitigate the transition and adjustment to college for veterans and military. Support in the form of having someone to talk to among friends or family; having someone to go to for advice, money, assistance with moving or illness; and positive reception upon returning from deployment make a significant difference in overcoming trauma and adjusting to college. Military combat may overwhelm normal coping skills and lead to disorder and breakdowns.

The struggles veterans face can seem overwhelming when trying to relate to traditional age college classmates, their professors, and college administrators. This fits with what educator and author Mike Rose (2010) wrote about when describing a program for teaching veterans how to help them transition. He explained that for a communications course, the veteran's stated goal was to explain to their loved ones how terrible their war time experiences really were. The results of the current study call upon faculty, staff, administrators, friends and family, and the community at large to make a difference in the life of veterans and military returning to college and struggling to overcome trauma and reintegrate into society. Psychologists working with veterans need to assess the level of perceived social support and its impact on college adjustment. Further studies on the homecoming experiences of veterans can shed more light on the nuances of how veterans perceive social support.

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Appendix A: Table 1

Table 1
Descriptives and Reliability Coefficients for Measures

Measure	Mean	Standard Deviation	Reliability	Number of Items
Combat Experiences	4.6943	3.00995	.848	10
Unit Support	44.1709	10.38875	.925	12
Postdeployment Support	55.15	10.84899	.892	15
Posttraumatic Stress Disorder Checklist – Military Version	34.7974	17.02489	.963	17
Student Adaptation to College Questionnaire	6.3079	1.19328	.950	64

Appendix A: Table 2**Table 2****Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std Error	
(Constant)	5.263	.645	
Combat experiences	-.037	.028	-.093
Number of Deployments	-.070	.148	-.029
PTSD	-.035	.006	-.474**
Prior injury	-.148	.169	-.058
Unit Support	.022	.009	.176**
Postdeployment Support	.036	.009	.308**

Note. Dependent variable: SACQ total score

*** indicates significance at $p < .05$.*

Appendix A: Table 3**Table 3***Independent Samples t-Tests for College Adjustment and Self-Reported PTSD*

Independent Variable (DV)	<i>t</i>	<i>df</i>	<i>p</i> -value
2 year vs. 4 year (SACQ)	.556	134	.579
self-reported PTSD (SACQ)	-3.802	132	.000**
PCL-M score (self-reported PTSD)	-6.897	46.022	.000**

***Statistically significant at the $p < .017$ level.*