

The Relationship between Posttraumatic Stress Symptoms, Academic Self-Efficacy, Academic Motivation, and Performance in Veteran College Students

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Abstract

The U.S. Department of Veterans Affairs (VA) has programs aimed at providing veterans support to obtain a college degree. However, aiding veterans has been a challenge due to the complex impact that posttraumatic stress symptoms can have on functioning. Due to the rapid growth in the numbers of veteran students on college campuses, it is important to understand how posttraumatic stress (PTS) might be impacting these students' abilities to perform academically. The present study used the Social-Cognitive model to examine if posttraumatic stress symptoms in veteran college students are related to decreased academic motivation and lower GPAs. The study also examined if these relationships are mediated by academic self-efficacy. Results of path analyses revealed no significant relationships between the variables. Suggestions for future research are discussed.

Introduction

The United States of America has the largest military in the world with more than 2.7 million armed forces members (Hurt, Ryan & Straley, 2011). Upon arrival back to the United States posttraumatic stress disorder (PTSD) can affect veterans due to the exposure of violent acts of war. PTSD is a mental health disorder triggered by deeply traumatic events, which leads to high levels of anxiety and uncontrollable memories of such traumatic events, and has damaging effects to veterans' mental health and reintegration into society after being relieved of duty (Mayo Clinic Staff, 2014). The U.S. Department of Veterans Affairs (VA) and many other services aim to reintegrate veterans suffering with PTSD and other mental and physical illnesses back into civilian life; however, aiding veterans has been a challenge due to the complex impact that posttraumatic stress symptoms can have on an individual's functioning. Although many studies have been done to understand the emotional effects of PTSD, not enough research has been done towards understanding the cognitive effects and, in particular, academic functioning.

One method aimed at the reintegration of veterans has been assistance in obtaining a college education. The VA's Veterans Educational Assistance Program (VEAP) allows active armed forces members to redistribute a sum of their monthly service pay during active duty towards a college education that the government will match upon completion of active service. VEAP gives veterans the opportunity to obtain a college degree and vocational training programs as a positive step towards reintegration. Services like VEAP and veterans success centers among colleges across the nation provide support to veterans to attain a college degree, which leads to opportunities for occupations that require a higher level of education.

A national survey revealed that 46% of a veteran student sample reported significant symptoms of PTSD (Rudd et al., 2011). Due to the rapid growth in the numbers of veteran students on college campuses, it is important to understand how posttraumatic stress (PTS) might be impacting these

students' abilities to perform academically. Barry et al. (2012) found that veteran students exposed to combat-related trauma reported more PTS symptoms than other veteran or civilian students, and that these PTS symptoms were related to alcohol-related outcomes but not academic variables (including GPA, educational self-efficacy, academic motivation, and persistence). However, for all veterans and civilian students combined, PTS symptoms were related to lower GPA, academic motivation, and academic persistence. The authors highlight the need for more research that examines the unique risk and protective factors for veteran college students in order to influence campus initiatives and services that will ensure a successful transition for these students (Barry et al., 2012).

One of the ways that background experiences, including exposure to trauma, can influence academic motivation and performance is through academic self-efficacy. Social-Cognitive Theory (Bandura, 1986) suggests that cognitions interact with environment to influence behavior. Self-efficacy refers to an individual's belief that they have the ability to perform the necessary tasks to achieve a goal (Bandura, 1997). Research has supported the proposition that self-efficacy impacts motivation and performance (including academic achievement; Pajares, 1996). Academic motivation is a key part of academic success. A study conducted by Johnson (2014) found that academic motivation leads to greater success in college students. Johnson (2014) study found that students who were motivated to submit extra credit did significantly better on all of their lab exams and in-class lecture exams, compared to the students who did not submit any extra credit assignments. Therefore, in order to understand how PTS symptoms might influence academic performance, self-efficacy and academic motivation could be important variables to examine.

Based on the previous research and the need for more studies to focus on veteran college students, the present study used the Social-Cognitive model to examine if posttraumatic stress symptoms in veteran college students

are related to decreased academic motivation and lower GPAs. The study also examined if these relationships are mediated by academic self-efficacy. It was hypothesized that in a sample of veteran college students, severe posttraumatic symptoms would be negatively correlated with academic motivation and GPA. Based on Social-Cognitive Theory, it was also hypothesized that these relationships would be mediated by academic self-efficacy.

Methods and Measures

Participants. Participants consisted of 26 veteran college students recruited through the University of New Haven Veteran Success Center. Participants complete an online survey assessing PTS symptoms, academic motivation, self-efficacy, and a demographic questionnaire.

Posttraumatic Stress Symptoms. PTS symptoms were measured by the PTSD Checklist for DSM-5. (PCL-5; Weathers et al.), a 20-item self-report checklist of PTSD symptoms based on the DSM-5.

Academic Motivation. The Academic Motivation Scale (AMS; Vallerand et al., 1992) is based on self-determination theory and includes 28 items that measure intrinsic motivation, extrinsic motivation, and amotivation. Participants recorded their responses to the items on a 7-point Likert scale ranging from “Not at all” to “Exactly.” The authors demonstrated satisfactory levels of reliability (Cronbach’s $\alpha = .81$) and validity.

Self-Efficacy. Academic self-efficacy was measured by the College Academic Self-Efficacy Scale (CASES; Owen & Froman, 1988). The CASES is a self-report measure of academic self-efficacy designed to measure the degree of confidence of performing typical academic behaviors of college students. The 33-items are built on a 5-point Likert-type scale; an example includes “taking well organized notes.” The authors reported an alpha coefficient of .90 and a test-retest reliability of .85 with an eight-week interval.

Demographic Information. Participants were asked to provide general information such as age, gender, and ethnicity, as well as more specific information such as types of trauma exposure (combat or noncombat related) and current diagnoses of mental illness. Participants also provided their current GPA.

Results and Discussion

The hypothesis that posttraumatic symptoms would be negatively correlated with academic motivation and GPA was not supported. Two path analyses were conducted: one with Extrinsic Motivation as the dependent, and one with Intrinsic Motivation as the dependent variable. No relationship between posttraumatic stress symptoms (PCL-5) and academic motivation (intrinsic or extrinsic) was found. Also no relationship between the variables and academic self-efficacy were found. The results of both path analyses are presented in Table 1.

Table 1. Results of path analyses examining relationships between PTS, academic self-efficacy, and academic motivation.

Path Analysis 1 (Intrinsic Motivation):

PTS -> Intrinsic Motivation, $\beta = -.05$ (S.E. = 9.10), *ns*

PTS -> Self-Efficacy, $\beta = .16$ (S.E. = 16.36), *ns*

Self-Efficacy -> Intrinsic Motivation, $\beta = .29$ (S.E. = .11), *ns*

Path Analysis 2 (Extrinsic Motivation):

PTS -> Intrinsic Motivation, $\beta = .18$ (S.E. = 9.86), *ns*

PTS -> Self-Efficacy, $\beta = .16$ (S.E. = 16.36), *ns*

Self-Efficacy -> Intrinsic Motivation, $\beta = -.04$ (S.E. = .12), *ns*

Future Directions

A major limitation of the present study was the small sample size. Future studies will need to obtain larger samples to increase generalizability and allow for analysis of relationships between the variables. Future studies could also examine other variables related to academic success for veteran college students that this study did not include. Because of the growing number of veteran students on college campuses, studies focused on understanding the experiences and cognitions of veteran students, and how they might impact their ability to perform academically, are crucial to aid in a successful transition to college life.

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References

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Barry, A.E., Whiteman, S.D., & Wadsworth, S.M.M. (2012). Implications of posttraumatic stress among military-affiliated and civilian students. *Journal of American College Health, 60*, 562-573.

- Foa, E., Riggs, D., Dancu, C., & Rothbaum, B. (1993). *Reliability and validity of a brief instrument for assessing post-traumatic stress disorder*. *Journal of Traumatic Stress*, 6, 459-474.
- Hurt, A., Ryan, E., & Straley, J. (2011, July 3). *The Numbers: Today's Military*. By Johnson, M. (2013). *Achievement Motivation for Introductory College Biology*. *Journal of Studies in Education*, 4, 1-9. Retrieved from JSTOR.
- Mayo Clinic Staff. (2014, April 15). *Post-traumatic stress disorder (PTSD)*.
- Owen, S.V., & Froman, R.D. (1988). *Development of a College Academic Self-Efficacy Scale*. (Report No. TM 012 263). East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED298158)
- Pajares, F. (1996). *Self-efficacy beliefs in academic settings*. *Review of Educational Research*, 66, 543-578.
- Romero, D. H., Riggs, S. A., & Ruggero, C. (2015). *Coping, Family Social Support, and Psychological Symptoms Among Student Veterans*. *Journal of Counseling Psychology*. Advance online publication.
- Rudd, D.M., Goulding, J., & Bryan, C.J. (2011). *Student veterans: A national survey exploring psychological symptoms and suicide risk*. *Professional Psychology: Research and Practice*, 42, 354-360.
- Vallerand, R.J., Pelletier, L.G., Blais, M.R., Briere, N.M., Senecal, C. Vallieres, E.F. (1992). *The academic motivation scale: A measure of intrinsic, extrinsic, and amotivation in education*. *Educational and Psychological Measurement*, 52, 1003-1017.