

The Self-Worth Moderating Effect of Stressful Life Events and College Academic Achievement

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A stressful life event can have adverse effects on a person's life. This study aims to assess how self-worth moderates the effects of stressful life events on college students' academic achievement. A total of 72 students attending a northeastern college participated in this survey. Participants completed the following measures: Contingencies of Self-Worth (CSW), Academic Success Inventory for College Students (ASICS), Life Events Checklist for DSM-5 Extended Version (LEC), and Reactions to Research Participation Questionnaire-Revised (RRPQ-R). It was hypothesized that an individual who experiences a stressful life event that has high self-worth will report high academic achievement, which was tested using multiple regression analysis. Results partially supported the hypothesis indicating that individuals who experienced a stressful life event had lower academic achievement when self-worth was low.

In the United States, approximately 19.1 million students enroll in higher education after high school (US Census Bureau, 2016). As students are beginning their shift into higher education, they are experiencing the transition from adolescence to adulthood, which can be the most stressful time for individuals.

Bernat, Ronfeldt, Calhoun, and Arias (1998) found that 67% of college students have experienced at least one stressful life event, with 4% of these students meeting the post-traumatic stress disorder (PTSD) criteria. A calculation utilizing the US Census Bureau (2019) and Bernat et al. (1998) data previously mentioned, just under 13 million students are enrolling into a university with having experienced at least one stressful life event, and approximately 520,000 of these students meet the PTSD criteria.

While a stressful life event is a phrase that can take many forms, it can be the precursor to trauma due to the impact it may have on individuals. According to the Diagnostic and Statistical Manual (DSM-5), there are a series of criteria that are used to determine the presence of trauma and PTSD (American Psychiatric Association, 2013). The current study investigates the exposure to Criterion A of PTSD and the presence of a potentially traumatic event within the participant's lifetime. Potentially traumatic events can be interchangeably used with stressful life events when assessing Criterion A of PTSD. A stressful life event is unique to every individual in the way that they perceive and proceed after the situation.

After experiencing a stressful life event, an individual's emotional and interpersonal functioning can considerably be impacted by cognitive factors (Harris & Valentiner, 2002). During natural development, individuals cognitively create schemas, an arrangement of beliefs, values, and expectations, that pertain to different aspects of one's life. In the face of stressful situations, adults may have difficulty processing the event into their previously built schema. This can cause adults to revise their existing schema, which may include exaggerating the importance of the stressful life event and adding negative assumptions about the self and the world. Previous research has suggested that the social judgments individuals make of themselves could involve a complex entanglement between social information, self-behavior, and views about the self (Beauregard & Dunning, 2001). This means that a person's sense of self-worth is based on both internal and external cues.

Stressful life events can affect many areas of a person's life. The alarming amount of U.S. students enrolling into higher education with at least one stressful life event should be investigated. These students have set goals to succeed in their academics. However, they are faced with potentially traumatic hardships along with the transition from adolescence to adulthood. The relationship between the individual's potentially stressful life event and their academic achievement is being investigated with the moderating effect of the individual's self-worth (Figure 1).

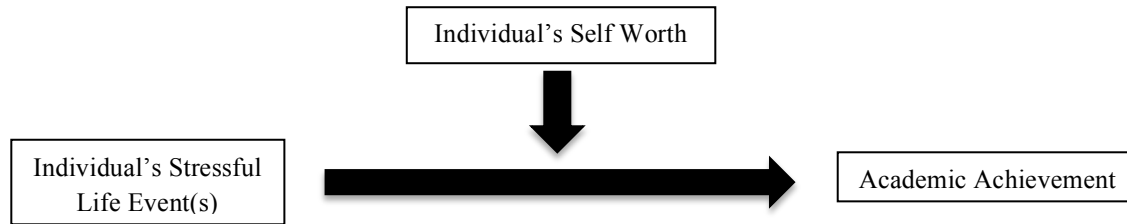


Figure 2. Relationship between the presence of a stressful life event and academic achievement with the moderating effect of the individual's self-worth

Academic Achievement

According to the U.S. Department of Health and Human Services (2015), research has shown that stressful life events may influence a person's physical and emotional well-being, which may leave the individual with feelings of sadness, shame, difficulties with sleep and/or somatic complaints. One major factor that could potentially be affected by a stressful life event is a student's academic achievement. Academic achievement is an individual's "general academic skills, internal motivation/confidence, perceived instructor efficacy, concentration, external motivation/future, socializing, career decidedness, lack of anxiety, personal adjustment, and external motivation/current time" (Prevatt, Dreher, Welles, Yelland, Li & Lee, 2011, p. 26).

Students enrolled in higher education are expected to have a high demand for their cognitive ability. These expectations include time management, attentive focus on lectures, the ability to suppress stress-related emotions and maintain an organization of materials, and various due dates. These expectations are difficult to achieve for most college students; those with lasting effects of an aversive event may find these tasks even more daunting. According to Bachrach and Read (2012), students may have difficulty managing high cognitive loads, especially after experiencing a stressful life event. A student's cognitive ability may be impacted due to the strain of suppressing memories associated with stressful life events (Carrion, Wong, & Kletter, 2012). Even though the findings suggest that academic achievement is influenced by a stressful life event, other researchers have concluded results that are contrary to this claim. Saigh, Mroueh, and Bremner (1997) found no academic deficits in students following a stressful life event when compared to those that had never experienced one. These results suggest that the lasting effects of a stressful life event may not decrease a student's cognitive ability.

The effect of stressful life events and the potential impact on an individual's physical and mental health is heavily investigated and well-known (Cantrell, 2016). However, few researchers have focused on the effect of a stressful life event on a student's academic achievement with inconsistent findings. The conflicting results could be due to extraneous variables, such as the individual's self-worth.

Effects of Self-Worth

Self-concept is the all-encompassing idea about the perception of oneself, which is influenced heavily by the environment and relationships (Shavelson, Hubner, & Stanton, 1976). Marsh (1990) incorporated the construct of self-concept regarding one's academic achievement and proposed the Academic Self-Concept Model. The model suggests that students who view themselves as possessing high academic self-concept generally perform better in coursework as opposed to individuals who possess low academic self-concept and has been used by numerous researchers. However, the Academic Self-Concept Model uses self-concept, which is a broad definition of one's perception of self. Assessing a more stringent subset of self-concept, self-worth, in particular, may provide researchers a clearer insight into an individual's academic achievement (Grills & Ollendick, 2002). Harris and Valentiner (2002) operationally defined self-worth as: "the degree to which individuals see themselves as valuable and feel that they have power over their fate" (p. 288).

An individual's self-worth and the effect that it can have on other aspects of the individual's life has been thoroughly explored. Past research has shown that self-worth can be a protective factor in the relationship between life stressors and anxiety (La Greca & Fetter, 1995; Ollendick, 1983). By viewing oneself in high regard may help lessen the impact and occurrence of experiencing anxiety symptoms. Grills and Ollendick (2002) investigated the moderating effect of self-worth between peer victimization and anxiety. These findings showed that individuals who have been victimized experienced low levels of self-worth. Self-worth has demonstrated significant results in being a protective factor and moderating variable of life stressors and anxiety.

The internal thoughts and feelings of an individual can be seen externally through their behavior. The concept of fear is a common theme for college students. Fear stems from a variety of different places based on the student. A study investigated the relationship between achievement goal orientations and self-handicapping (Akin, 2014). It showed that an individual's expressing low self-worth are less likely to achieve academically out of fear of negative performance. Many students have a fear of performing negatively, while others stem from oppression and stressful life experiences. Another study conducted on undocumented Hispanic college students that have experienced stressful events struggles to achieve academically due to the oppression they face (O'Neal, Espino, Goldthrite, Morin, Weston, Hernandez & Fuhrmann, 2016). While many of those students were able to achieve, many were not able to succeed. These elements could potentially be interconnected; however, little research has been done on how self-worth influences the relationship between stressful life events and academic achievement. The purpose of the current study is to emphasize the benefits of protective factors, specifically self-worth, as well as determining how it can have a positive influence on academic achievement following a stressful life event. No other study addresses how self-worth may act as a moderator to the relationship between trauma and academic achievement.

Current Study

The current study will investigate whether or not self-worth moderates the relationship between stressful life events and students' academic achievement. The hypothesis examined if an individual who experiences a stressful life event that has high self-worth will report high academic achievement.

Method

Participants

Students attending a northeastern college ($N=72$) participated in this study. Of these students, 38 were female (53%) and 34 were male (47%); these participants ranged in age from 18-22 years ($M=18.82$, $SD=0.91$). Participants were recruited by a convenience sampling process through an online SONA research pool. These participants received one-course credit per hour for completing this study. The study was administered via a survey platform Qualtrics and took approximately 1 hour to complete. Exclusion criteria to this study included denying consent, age less than 18 years old, and having minimal to no understanding of English. No participants were excluded based on these criteria.

Measures

Each participant completed the demographics section, which asked questions regarding race, gender, age, ethnicity, semester standing, and overall estimated GPA. The participants completed a 35-item Contingencies of Self-Worth (CSW) scale, which measured self-worth through 7 subject domains: others approval, appearance, competition, academic competence, family support, virtue, and God's love (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). This was a self-report measure that assessed these domains on a 7-point Likert scale, 1 = strongly disagree and 7 = strongly agree. The scale was composed of statements such as, "My self-worth is affected by how well I do when I am competing with others." Previous testing indicated strong reliability between .77 and .95 in each domain (Crocker, Luhtanen, Cooper, & Bouvrette, 2003).

Participants then completed the 50-item Academic Success Inventory for College Students (ASICS) which measured academic progress through 10 subscales: general academic skills, internal motivation/confidence, perceived instructor efficacy, concentration, external motivation/future, socializing, career decidedness, lack of anxiety, personal adjustment, and external motivation/current (Prevatt et al., 2011). Participants reported how strongly they agree or disagree with each statement on a 7-point Likert scale. The reliability of each domain in this measure lies between .62 and .93, which all indicate a strong reliability (Prevatt et al., 2011).

Participants completed the 17-item Life Events Checklist (LEC) to assess types of adverse events experienced (Weathers, Blake, Schnurr, Marx, & Keane, 2013). Participants reported how each given event occurred by checking all that applied (Happened to me, Witnessed it, Learned about it, Part of my job, Not sure, and Does not apply). An example statement consisted of "Natural disaster, for example, flood, hurricane, tornado or earthquake."

At the end of the survey, participants completed the 28-item Reactions to Research Participant Questionnaire-Revised (RRPQ-R) to report the five costs and benefits of research participation (participation, personal benefits, emotional reactions, perceived drawbacks, and global evaluation) (Newman, Willard, Sinclair, & Kaloupek, 2001). This measure was used to assess cost and benefit to ensure that their participation did not re-inflict emotional distress. Participants indicated how strongly they agree or disagree with each given statement using a 5-

point Likert Scale. An example statement was, “I believe this study’s results will be useful to others.” There was a strong reliability of .83 in this measure (Newman et al., 2001).

Procedure

Before the administration of the survey, researchers completed a six-hour online course on Psychological First Aid by the National Child Traumatic Stress Network (The National Child Traumatic Stress Network). The training prepared the researchers to communicate and assist with participants that may become uncomfortable while taking the survey.

The participants completed the survey in a laboratory setting. Informed consent was given before the participant can complete the survey. The participant continued to complete the survey by answering demographic questions and the CSW, ASICS, and LEC scales. After completing the survey, participants were debriefed by viewing the TED video “All It Takes is 10 Minutes of Mindfulness” presented by Andy Puddicombe (2012) which discussed the use of mindfulness to overcome stress. After the video, participants completed the RRPQ-R scale.

Also, a list of available services that aid in physical and psychological assistance, including the National Suicide Hotline, emergency personnel, and on-campus personal counseling was provided. Participants were able to ask any additional questions or concerns by utilizing the primary researchers’ email addresses available.

Design

This study was a survey design. The variables of interest included the presence of a stressful life event, the level of perceived self-worth, and level of academic achievement. The data were analyzed using regression to understand the moderating effect of self-worth on the relationship between stressful experiences and academic achievement. To test moderation, we examined the interaction effect between a stressful life event and self-worth and whether or not the impact was significant in predicting academic achievement. Analyses were conducted using PROCESS by Hayes (2017) in SPSS.

Results

Of the 72 participants, 57 reported having experienced at least one stressful life event. The remaining 15 participants reported no experience. The presence of a stressful life event was reported more by females ($N=32$) compared to males ($N=25$).

Variables of interest include the presence of a stressful life event as a categorical IV, academic achievement as a continuous DV, and self-worth as a continuous moderator. Self-worth was examined as a moderator of the relationship between the presence of a stressful life event and academic achievement. The overall model was significant, indicating that 11% of the variance in academic achievement could be explained by the presence of a stressful life event, self-worth, and the interaction between these two variables, $R^2 = .11$, $F(3, 68) = 2.85$, $p < .05$. Although self-worth was not a significant predictor of academic achievement ($p = .21$), the main effect of the presence of a stressful life event was significant and contributed to lower levels of academic achievement, $b = -55.20$, $t(68) = -2.35$, $p = .02$. The interaction effect was significant, $b = 1.56$, $t(68) = 2.28$, $p = .03$, indicating that the interaction between presence of a stressful life event and academic achievement account for a significant amount of variance in academic achievement above and beyond the main effects of self-worth and the presence of a stressful life event. A simple slopes analysis for the presence of a stressful life event predicting academic achievement at three levels of self-worth (1 SD below mean, at the mean, and 1 SD above mean) were then examined. There were no significant relationships between the presence of a stressful life event and academic achievement when self-worth was at the mean ($p = .52$) or above the mean ($p = .25$). However, there was a significant relationship between having experienced a stressful life event and academic achievement when self-worth was low, $b = -8.43$, $t(68) = -2.08$, $p = .04$. Specifically, when self-worth was low, participants reported lower academic achievement when previously experiencing a stressful life event ($M = 60.03$) than not previously experiencing a stressful life event ($M = 68.46$); See Figure 2).

Additional analyses were conducted on the presence of a stressful life event, and lack of anxiety, a subcategory of the ASICS. Using an alpha of .05, a 2-tailed, independent samples t-test showed a significant difference in lack of anxiety scores between males who did and did not experience a stressful life event, $t(32) = 2.35$, $p = .025$. Specifically, males who experienced a stressful life event reported higher anxiety ($M = 31.04$, $SD = 12.75$) compared to males who did not experience a stressful life event ($M = 44.43$, $SD = 19.34$). There was no significant difference in the lack of anxiety scores for females who did and did not have a history of a stressful life event.

Differences in GPA between individuals who did and did not experience a stressful life event were examined next and split between males and females. Using an alpha of .05, an independent sample t-test showed no significant difference in GPA level between males who did experience ($M=3.23$) and did not experience ($M=3.20$) a stressful life event, $t(29) = -1.12, p = .80$. Likewise, an independent sample t-test showed no difference in females GPA who did experience ($M=3.55$) and did not experience ($M=3.53$) a stressful life event, $t(30) = -.183, p = .43$.

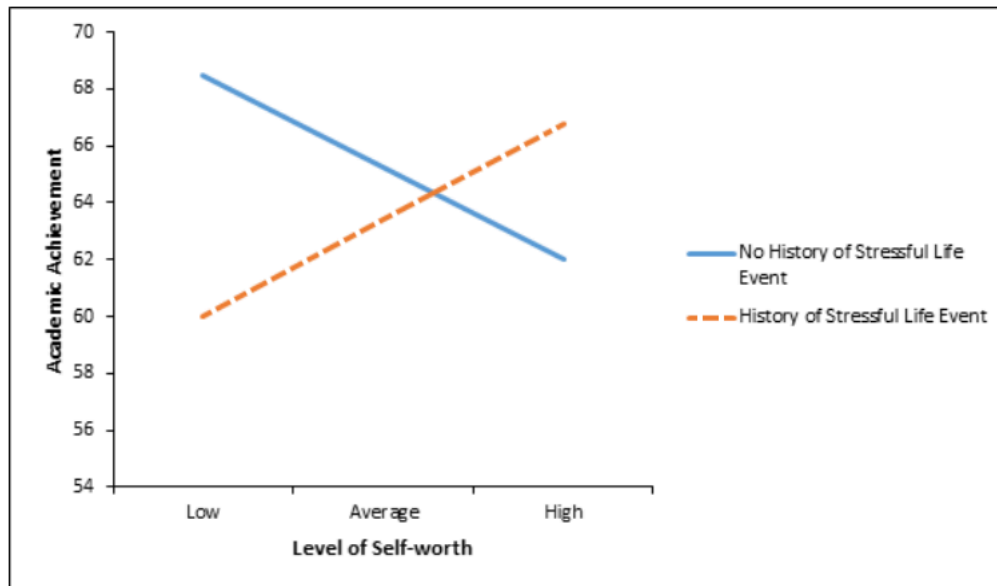


Figure 2. Interaction between the presence of a stressful life event and self-worth on academic achievement.

Discussion

It was hypothesized that those who reported high self-worth that experienced a stressful life event would report high academic performance. The findings suggest that individuals who have experienced a stressful life event and disclosed high self-worth did not show a difference in academic performance when compared to those who have not previously experienced one. However, a partial confirmation of the hypothesis occurred.

Participants who experienced a stressful event that possessed low self-worth demonstrated significantly lower levels of academic achievement compared to individuals who did not encounter one. This result suggests that those expressing low self-worth are more likely to have poor academic performance if they have experienced a stressful life event. An individual's self-worth can affect their amount of self-handicapping in an inverse relationship. An individual with low self-worth can result in a higher amount of self-handicapping behaviors than those who have higher self-worth. Similar results were found by Akin (2004), who investigated the relationship between achievement goal orientations and self-handicapping, and found that self-handicapping increased the use of learning avoidance. In other words, those expressing low self-worth are less likely to achieve academically out of fear of negative performance.

Also, males who experienced a stressful life event reported significantly higher anxiety through the ASICS subcategory, Lack of Anxiety. Reporting higher anxiety symptoms may be explained by the presence of a stressful life event (McLaughlin & Hatzenbuehler, 2009). No females reported a difference in Lack of Anxiety scores whether they experienced a stressful life event or not. Alternatively, there was a difference among males when participants were separated by gender. Specifically, 25 males reported experiencing stressful events, while 9 males did not.

We suspect that this result is based on gender differences in reporting anxiety. Researchers McLean and Anderson (2009) explain that females have a higher heritability rate of anxiety-related vulnerability factors than males. Social norms pressure males to suppress emotion. Masculinity encourages males not to show their emotion, which could lead to negative coping skills such as avoidance coping as opposed to problem focused or emotion-focused coping. A study conducted by Matud (2004) suggested that “The women scored significantly higher than the men on the emotional and avoidance coping styles and lower on rational and detachment coping.” Miller and Kirsch (1987), as well as Ptacek, Smith, and Zanas (1992), found evidence stating that this could also be because women perceive stressful events to be more severe than men do.

The implications of these findings can have a considerable impact on students that are enrolling in higher education. A large percentage of these students have experienced at least one stressful life event and are coping with the aftermath while trying to invest in themselves. Colleges need to become aware of the mental health challenges that the students are facing to provide the necessary resources and the knowledge of these resources for them to succeed. Many colleges already offer free psychological counseling, but the wait times can last weeks, and the mental health stigma is discouraging to students. While discussing these factors with college faculty, they suggest that the counseling offices should be inside of the health and wellness centers to provide some anonymity of students that receive counseling services. Also, the collaboration of the counseling offices, residence life, health and wellness, tutoring services, and housing and food services can bring beneficial programs and initiatives to the student community. These collaborations can inform the students about available resources and combat mental health stigma.

Limitations and Future Directions

This research was an initial explorative study to investigate the moderating effect of an individual’s self-worth between the presence of a stressful life event and their academic achievement. With an explorative study, only a limited number of variables can be assessed; however, this research could be taken into many different directions. In the beginning stages of the study, a wealth of potential variables was generated by the researchers. However, only a few were selected to be used in the original research.

While the findings of this study didn’t yield the anticipated results, there is room for improvements. Based on the data, the sample size ($N=72$) was not of a large enough to draw substantial conclusions in the different variables that make up the moderating relationship and the various subscales that comprise the operational definitions. Even though there were certain significant relationships, such as the presence of a stressful life event and anxiety level, it is difficult to analyze this data to their academic achievement. The ASICS scale that is used to assess academic achievement consists of 10 subscales. The results for the various subscales cannot be accurately evaluated due to the small sample sizes. However, our sample size reported that 79% of them had experienced at least one stressful life event which is compatible with the current research in the field of 67% of college students that have experienced at least one stressful life event (Bernat et. al, 1998).

This study was conducted through convenience sampling and was not open to the general public. Our program had limited the population to undergraduate psychology students enrolled in an Introduction to Psychology course at a mid-size college campus. It is possible that the sample could have been pulled from a larger sample of the student population; different effects could have been seen.

As stated previously, there are many variables that the researchers were interested in pursuing, but was unable to include them all into the initial study. The variables of interest in the future investigation are the individual’s age at the time of the event, the types of stressful life events, and the individual’s perception of the severity of the event.

The researchers are curious about utilizing the moderation effect with different themes being analyzed as the independent, dependent, and moderator variables. In future research, they hope to explore the relationship of the presence of a stressful life event, as an independent variable, and academic achievement, resilience, parent and peer attachment, and connection with the school as the dependent variables. Also, they look forward to analyzing multiple moderating variables including self-efficacy, growth mindset, hope, gratitude, personality, coping styles, and event severity. There are many directions this research can be taken; however, a strong foundation of research has been created by this explorative study.

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Note

This project was conducted as part of a requirement of PSYCH406W under the supervision of Dr. Shariffah Sheik Dawood. All participants received helpful community resources for anonymous outreach interventions.