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Evaluating the Efficacy of Programs for Veteran Students

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Abstract

Veteran students are increasingly prominent in U.S. colleges and universities. The transition from military to civilian life is already challenging, and the transition to the academic realm can be even more so, especially when most veteran students are also first-generation college students, transfer students from community colleges to 4-year universities, or both. The specific problem is that the transition from military to student life requires significant adjustment on the part of both veterans and schools, and it was not known how these students' school leaders could best help these veteran students adjust. The purpose for conducting this quantitative, historical, non-experimental correlational study is to determine whether targeted programs for veteran students are helpful to show how best to allocate resources for their education. The theoretical framework guiding this study is stress processing theory. The existing literature had not yet explored how effective school programs for veteran students are in helping these students. Therefore, the current study furthered the understanding of stress processing theory and might show academic and practical insights into how resources and funding allocation influenced veteran students. Specifically, I investigated the relationships between school funding, VA benefit funding, academic success, and graduation rates. The findings of the study showed no relationship between VA funding, school funding, and veteran graduation rates. The findings warrant future research on how VA funding and school funding are being used and the types of student veteran programs that are effective in increasing veteran graduation rates and academic performances.

Table of Contents

List of Tables

List of Figures

Chapter 1: Context of the Problem

Veteran students are increasingly prominent in U.S. colleges and universities, with over 1 million students now using VA benefits to pursue higher education (Jones, 2013). This number will continue to increase as more veterans return from their deployment in Iraq and Afghanistan, and recent legislation (i.e., the Post 9/11 GI Bill) has been enacted to assist these veterans (Elliott, 2015). However, the transition from military to civilian life is already challenging, and the transition to the academic realm can be even more so, especially when most veteran students are also first-generation college students, transfer students from community colleges to 4-year universities, or both (Pesetski, Ofstein, Outlaw, & Brooks, 2014). School leaders are poorly prepared to help in this transition, with only 22% to 37% having programs in place for that purpose (Schiavone & Gentry, 2014).

Left to themselves, veteran students often isolate themselves and fail to integrate into campus communities at large (Voigt, 2016). However, veteran students may be at substantial risk for mental and physical illness, if not already suffering from one or both (Currier, McDermott, & Sims, 2016; Miller et al., 2016); therefore, they are in particular need of social support (Ahern, Foster, & Head, 2015). Thus, many school leaders have attempted to provide veteran assistance programs with varying degrees of success (e.g., T. C. Bonar, 2016). Thus, there was a significant amount of effort and capital dedicated to the support of veteran students. However, there did not exist a similarly broad body of literature evaluating the success and efficiency of these efforts.

The general problem was that as an increasing number of veterans began to seek postsecondary education through the Post-9/11 GI Bill (Elliott, 2015), college graduation rates for veteran students remained low, with roughly 30% to 40% of veterans who used their veteran benefits to attend school failing to graduate (Cate, 2013). The specific problem was that the

transition from military to student life required significant adjustment on the part of veterans and schools both (Pellegrin, 2013), and it was not known how these students' school leaders could best help these veteran students adjust (Barry, Whiteman, & Wadsworth, 2014). Veteran students who struggle or drop out of classes may have to pay for their courses out of pocket and accrue debt (Sutton, 2016) when financial struggles are already a major challenge for veteran students (Badger & McCuddy, 2014). In addition, military culture may lead veteran students to be more likely to be involved in serious infractions such as alcohol abuse or assault (Haynes, 2016). Stress may be a significant aspect of this, both a cause of and a result of transitional difficulty (Elliott, 2015). Other students and faculty may be poorly prepared to deal with veterans (Hart & Thompson, 2013).

According to stress process theory (Pearlin, 1989), social structure and position in society predict the degree of stress a person is exposed to. Therefore, further research was needed on veteran students as a demographic (Jones, 2013) and into the reasons why they failed or succeeded (Cate, 2013). In addition, researchers should explore whether targeted programs for veteran students were helpful (Cole & Kim, 2013) and ways best to allocate resources for veteran students (Griffin & Gilbert, 2015).

Statement of the Purpose

The purpose for conducting this quantitative, historical, non-experimental correlational study was to determine whether targeted programs for veteran students were helpful to show how best to allocate resources for their education. In this study, veteran students were defined as postsecondary/college students who previously served in some branch of the U.S. military, with special consideration to those attending school through the Post-9/11 GI Bill (Elliott, 2015). The dependent variables being studied included graduation rates and academic success, and the

independent variables were student funding and VA benefit funding. Gender was examined to determine if it was a moderator of funding in academic success and graduation rates.

Statement of Research Questions

RQ1: Based on the data used for the current study, what are the characteristics/profile of veteran students?

RQ2: What effect, if any, does VA benefit funding have on veteran student programs?

RQ3: What effect, if any, does school funding for veteran student programs have on academic success and graduation rates for veteran students?

RQ4: Does gender of veteran students moderate the effect of funding in academic success and graduation rate?

Definitions

Academic Success: Academic success can be defined as meeting the university's expectations for being in good standing and making satisfactory progress toward a degree. In this study, academic success was measured by the average GPA for veteran students.

Funding for veteran student programs: These programs referred to an annual average amount of money in United States Dollars (USD) spent by the school on veteran student assistance programs. These data were collected as continuous interval data.

Funding received through VA benefits: These benefits referred to an average annual amount of money in USD that the school receives from student veteran's VA benefits. These data were collected as continuous interval data.

Gender: Gender referred to the gender of the respondent (male or female).

Veteran student graduation rates: These rates referred to the graduation rate for veteran students enrolled through the school in their chosen degree or certification programs. These data

were collected as continuous interval data. These data included separate averages for male and female veteran students.

Veteran student GPA: GPA referred to a measure of academic achievement; data on the school's average GPA for veteran students were collected. These data were collected as continuous interval data. These data included separate averages for male and female veteran students.

Veteran student programs: Veteran student programs are programs to support veteran student success in postsecondary education by coordinating services to address the academic, financial, physical, and social needs of veteran students.

Assumptions

Several assumptions associated with quantitative research in general merited discussion. First, quantitative approaches included the assumption that reality was objective and independent of the person completing the research. Second, I assumed that the role of the researcher was to remain distant and neutral, without influencing the research in any way with his or her own values. Third, quantitative research was largely deductive, with the goal to predict and explain a phenomenon within the context of theory. Certain assumptions were made in this study because it involved secondary data from the participating colleges. I assumed that available historical data were meaningful and accurate. I assumed that statistical analysis of these data could provide useful information about the value of funding in veteran assistance programs. I also assumed that there were enough data available to reach statistically significant conclusions.

Delimitations and Limitations

The study was limited to universities and colleges in the 23 states that contained most veteran students. In addition, this research included only institutions for which data on veteran

students were available either publicly or through the schools. The study was also limited to American veteran students and did not include international veteran students or account for demographics other than gender in analyses. Thus, care should be taken when generalizing the findings of this study to various locations, populations, and subjects. Further delimitation of the study were that there was no direct manipulation of variables.

When using secondary data, there were several limitations that must be considered. The first limitation was that all data were secondary. The use of secondary data posed a problem with time validity because these data were collected in the past. Time validity was best described as time passed from the date when data were collected; the data might include history from that moment in time. The present study's results still provided valuable insights for future research. The most current data available were used for this study.

Quantitative research included little information on contextual factors that could contribute to the findings of the study. Although the study focused on academic achievement and graduation rates in relation to student funding and VA funding, other variables that could impact performance were not included. Examples of other factors could include the school climate, personal factors and hardships, peer relationships, and teacher-student relationships. In addition, a reliance on scores from tests could be criticized as not considering all abilities and competencies of students. For example, some students are poor test takers, although they may have an advanced grasp of the knowledge being tested. However, the pressure of the test may influence the results. Another limitation of quantitative research was that reducing data to numerical representation could result in a loss of important details, including specific areas in which students performed well and specific areas in which they performed poorly. In addition, depending on the procedures used to determine statistical significance, a false positive finding, or

false negative findings could occur. To remediate this limitation, the level of statistical significance chosen for this study was typical in most disciplines ($p \leq 0.05$; Fisher, 1950).

Another limitation was that all assumptions of multiple regression must be met for the statistical findings to be valid. To test for assumptions of multiple regression, a variety of measures was taken. To test the assumption of normality, a histogram was constructed, kurtosis and skewness statistics were generated. This process allowed for the identification of outliers that could influence the data. When these assumptions were violated, the type of statistical test employed were re-assessed. Due to the theoretical assumption that deficient performance was due to a mismatch between an individual's competence and the expectations of a job/ course, a limitation of the theory was that it discounted other potential causes of poor performance. For example, drug abuse, hardships in life, and mental and physical injuries might contribute to deficient performance as well.

Significance of the Study

The current study was socially significant because of the increasing prevalence of the veteran student demographic in U.S. colleges and universities in the wake of the 9/11 GI Bill (Ahern et al., 2015). These veteran students were in transition, and they often required assistance in terms of programs through their schools, in addition to the financial assistance provided through VA benefits (Pellegrin, 2013). Even as of 2010, VA benefits accounted for over $600 million in public funds (E. J. Campbell, 2016). Thus, some in society could benefit from understanding what effects these funds actually had on veterans. Academically, scholars have requested further research into veteran students, including general research on the demographic, which is poorly understood (Jones, 2013), and why these students succeed or fail in their academic endeavors (Cate, 2013). There has also been a direct call for research into the

effectiveness of veteran programs (Cole & Kim, 2013) and ways school leaders can best allocate resources to help veteran students succeed (Griffin & Gilbert, 2015). Thus, the current study contributed both socially and academically.

Theoretical Framework of the Study

The theoretical framework guiding this study was stress processing theory (Pearlin, 1989). Stress processing theory arose as a sociological theory of stress in the 1980s; Pearlin, the foundational thinker, believed that contemporary sociology did not pay enough consideration to issues of stress. He saw stress as an intrinsically sociological issue because it influenced how people's well-being was determined by the social structure of their lives. He saw stress as an issue that linked together sociology and psychology, as the external influence of the environment could create an internal reaction such as stress (Pearlin, 1989). In addition to considering the sociological role of stress as a factor in social structures and social structures as a cause of stress, he studied the processes by which social factors could worsen or mediate the effects of stress. Thus, Pearlin (1989) created the stress processing theory to understand the ways social structures could influence stress on the individual level, as well as the larger scale ways that social structures could control an individual's exposure to stressors and the relative effect of these stressors.

Therefore, using stress processing theory was a natural lens to examine the transition between military and academic life and the effectiveness of schools' attempts to alleviate the challenges of this transition. Stress processing theory was used to study issues pertaining to veteran students previously (e.g., Elliott, 2015). The theory was applicable in this context because military life and student life represented two distinct sets of social structures, and the position of veteran students within the student social structure was unique. This position might

magnify the stressors affecting veteran students due to their perceptions of being unfairly judged by others (e.g., Elliott, 2015). However, I studied how concerted efforts on the part of schools through funding and resource allocation might act to counteract this issue.

The existing literature had not yet explored how effective school programs for veteran students actually were in helping these students (Cole & Kim, 2013). Therefore, the current study furthered the understanding of stress processing theory and might show academic and practical insights into how resources and funding allocation influenced veteran students. Chapter 2 contains literature about this issue.

Chapter 2: Literature Review

Challenges of Veteran Students

An increasing number of veterans seek postsecondary education through the Post-9/11 GI Bill (Bound & Turner, 2002; Elliott, 2015); however, college graduation rates for veteran students remain low. Thirty percent to 40% of veterans who use their veteran benefits to attend school do not graduate (e.g., U.S. Department of Veteran Affairs, 2015; VA Campus Toolkit, 2013). The purpose for conducting this quantitative, historical, non-experimental correlational study was to determine whether targeted programs for veteran students were helpful to show how best to allocate resources for their education. Specifically, this study investigated the relationships between school funding, VA benefit funding, academic success, and graduation rates. The next section includes examinations of health and mental health issues, such as post-traumatic stress disorder (PTSD), substance abuse, and physical disabilities experienced by veteran students.

Health and Mental Health of Veteran Students

Veteran education benefits have expanded, as has the amount of money spent on veteran higher education (Radford, Bentz, Dekker, & Paslov, 2016). There has been an increase in the number of veteran students who have attended college since the passing of the G.I. Bill in 2011, specifically the number of veteran students attending a 4-year university (rates of veteran students attending community colleges have shown a slight decline). At the same time, more veteran students have reported disabilities than nonmilitary students, which has shown one difference between military and nonmilitary students and the need to address unique needs of veterans (Radford et al., 2016). Additionally, O'Toole, Johnson, Aiello, Kane, and Pape (2016) found that homelessness was also a challenge faced by veterans. This section includes

discussions of the unique psychological, self-injurious, and substance abuse problems experienced by veterans and treatment patterns among veterans.

Psychological problems among veterans. Veterans tend to exhibit psychological issues after serving in the military and experiencing trauma. For instance, Reeves, Parker, and Konkle-Parker (2016) examined the healthcare problems experienced by veterans and the need for mental health professionals to be prepared to treat these issues effectively. Common mental health issues faced by veterans included emotional distress, PTSD, and acute stress disorder (Reeves et al., 2016; Vaughan, Schell, Tanielian, Jaycox, & Marshall, 2014; Wisco et al., 2014). Wisco et al. (2014) noted that 90% of veterans reported exposure to at least one traumatic event. Furthermore, PTSD symptomology was positively correlated to anxiety, depression, and mood disorders and substance use problems. Wisco et al. argued that future researchers should address other programs that met the unique needs of veterans.

Previous researchers similarly highlighted risks for veterans, namely PTSD and depression (Vaughan et al., 2014). A total of 913 veterans participated in Vaughan et al. (2014) mixed-methods study, which involved online surveys as well as phone interview surveys. Descriptive analyses showed that most participants were white males, and about half were married. Further analyses showed that about 20% of respondents met the criteria for PTSD, depression, or both. Results indicated that PTSD and depression symptoms were found significantly higher among veterans who received VA services than those that did not (Vaughan et al., 2014). This finding indicated that using prevalence rates from VA services might lead to overestimating mental health problems in veterans. In addition, Vaughan et al. (2014) found that many veterans were in need of services for PTSD and depression but were not receiving these services. Overall, Vaughan et al. helped to understand better the prevalence of two mental health

issues, namely PTSD and depression in veterans. The researchers highlighted that there were a subset of veterans experiencing symptoms of PTSD, depression, or both who were not receiving care from the system.

Koo, Hebenstreit, Madden, Seal, and Maguen (2015) examined mental health issues in veterans and gender and racial differences. Diagnoses of focus included PTSD, depression, anxiety disorders, adjustment disorders, and alcohol and drug abuse disorders. Participants were also grouped depending on whether they exhibited one, two, or multiple disorders. Records from a total of 792,663 veterans were utilized in the study. Descriptive analyses showed that almost 30% of veterans were diagnosed with PTSD; about a quarter were diagnosed with depression, 14% were diagnosed with anxiety; and about 10% were diagnosed with an anxiety disorder, drug abuse disorder, and alcohol abuse disorder (Koo et al., 2015). Results from further analyses showed that Asian/Pacific Islanders displayed less mental health problems than Whites, and Whites displayed less mental health problems that American Indians. However, Whites were more likely to display symptoms of anxiety. The study showed that, in addition to being a unique population already, there were racial differences that made certain veterans even more at risk for mental health outcomes (Koo et al., 2015).

More explicitly, Rumann and Hamrick (2010) wanted to understand the psychological experiences of student veterans as they transitioned to college after being employed in the military. Rumann and Hamrick involved semistructured interviews of five male veteran students and one female veteran student. On average, interviews lasted about 90 minutes. Notably, all participants reported having concerns about transitioning to college. One of these concerns included having issues with university policies that complicated re-enrollment into college, although they felt that college personnel did try to help them during their enrollment process

(Rumann & Hamrick, 2010). Respondents also noted high stress levels and issues with adapting their identities from one of a military member to a college student. Keeping busy and staying active during college were ways that respondents reported increasing their motivation and staying on task throughout college. Interestingly, the student veterans described college as a situation, which removed the individual from the college experience (Rumann & Hamrick, 2010).

Mental health and academics. Another subset of authors examined the link between the mental health of veterans and their academic performance. R. Campbell and Riggs (2015) sought to investigate the impact that veteran students' psychological stress and social support had on academics. A total of 117 veteran students participated in the study. All veteran students had been deployed prior to this study. Most of the sample consisted of males (84%), and the average age was 32.5 years. Questionnaires were administered online (R. Campbell & Riggs, 2015). R. Campbell and Riggs (2015) showed that support from military personnel during time spent in the military as well as social support while in the college setting was important for veteran students' academic success. Anxiety and post-traumatic stress symptoms were shown to impact academic success negatively. The study had many implications for college campuses and personnel; for instance, college leaders should screen for mental health symptoms among student veterans and develop plans to address these symptoms. This process would also mean that campuses must be better staffed to meet the needs of student veterans (R. Campbell & Riggs, 2015).

Other researchers linked mental health to troubles in academics. For instance, Dasarathy (2015) discussed the familiar challenges faced by veteran students, including pressure to obtain a college degree and mental health problems. Additionally, Fortney et al. (2016) found that veteran

community college students had greater levels of depression, PTSD, and suicidal ideation than nonveteran community college students.

      Self-harm patterns among veterans. Researchers explored the tendencies of veterans to self-harm because of their mental health issues. Blosnich, Kopacz, McCarten, and Bossarte (2015) found that veteran college students were more at risk for self-harm and more likely to display psychiatric problems compared to non-veteran students. In another study, Bryan and Bryan (2014) examined non-suicidal self-injury (NSSI) and suicidal behaviors in military and veteran college students. An online survey was completed by 336 military members and veterans; about 70% of those who completed the survey were male. Results showed that 14% of military and veteran college students engaged in injurious behavior; the most common behavior was cutting (Blosnich et al., 2015). Factors that were found significantly related to NSSI included older age, serving a shorter amount of time in the military, greater trauma, being a female, being of Native American descent, and being deployed to a combat zone. Further, NSSI was significantly correlated with suicide ideation, planning, and attempts; this finding was true even when controlling for demographics and covariates. Although this estimate was comparable to that of nonmilitary and nonveteran students, it was a risk for military and veteran students and an issue they might face while transitioning to college (Blosnich et al., 2015).

      Alcohol abuse among veterans. Miller et al. (2016) compared drinking behaviors among student service members, student veterans, and nonmilitary students. Regardless of military status, males reported drinking more alcohol than females. Male and female SSMs and veteran students overestimated the drinking behaviors of others, suggesting that their normative perceptions of drinking behaviors were inaccurate (Miller et al., 2016).

Other researchers examined problems of drinking among veterans. For instance, Grossbard et al. (2014) found that high risk drinking behaviors were one of the risks that veterans who were deployed faced more often than veterans who were not deployed. High-risk drinking was shown to influence academic performances negatively, as were less support from college faculty and inability to effectively handle stress. This study showed that leaders should address the unique challenges of veteran students to promote success in higher education (Grossbard et al., 2014).

Treatment patterns among veterans. To complicate the transition from military to civilian life and college life further, researchers demonstrated that veteran students might not be inclined to seek treatment when they were in need of help. For instance, E. E. Bonar, Bohnert, Walters, Ganoczy, and Valenstein (2015) aimed to determine if mental health issues and seeking treatment for mental health issues differed between student and nonstudent veterans/service members. A total of 1,439 participants were involved in this study, and over 90% were male. This study showed that despite if veterans or service members were attending college or not, they were not likely to seek mental health treatment or utilize VA mental health services (E. E. Bonar et al., 2015). Service members and veteran students reported not wanting to have treatment indicated on their records. Student and nonstudent veterans and service members did not differ in terms of depression, anxiety, alcohol abuse, or PTSD. The study indicated that service members and veterans had mental health problems and were not likely to seek treatment for these problems; around half of student and nonstudent veterans reported receiving mental health services. Mental health needs were one example of unmet needs of veterans and service members today (E. E. Bonar et al., 2015).

In addition, Hoge et al. (2014) found a high amount of PTSD in veterans following deployment or combat, yet a small percentage of veterans actually sought treatment for PTSD. Of those who did, a quarter of them dropped out before completing treatment. Veterans reported concerns about the stigma associated with seeking treatment and confidentiality, and they felt that they could handle their issues on their own (Hoge et al., 2014).

In conclusion, the introduction of the G.I. Bill led to an increase in veterans seeking higher education (e.g., Radford et al., 2016). Veterans faced many challenges after leaving the military (e.g., Radford et al., 2016; Reeves et al., 2016). Some of the common psychological challenges faced by veterans included PTSD and depression (e.g., Koo et al, 2015; Vaughan et al., 2014). Research showed that psychological issues were related to poor academic performance (Dasarathy, 2015) and self-injurious behaviors (Fortney et al., 2016). Veterans were also more likely to exhibit drinking problems (e.g., Grossbard et al., 2014; Miller et al., 2016). What further complicated challenges faced by veterans was their tendency to avoid seeking mental health treatment (E. E. Bonar et al., 2015). The next section includes a discussion of challenges and experiences faced by veterans when transitioning to civilian life with a focus of transitioning to life as a college student.

Veteran Students in Transition

For the purposes of the current study, transition referred to a person leaving the military setting and entering and adapting to the college setting. Tinoco (2014) described the increase of veterans making the transition to college life and the difficulties that they might face. First, the transition back to civilian life, followed by college life, is much less structured than military life. For instance, students do not have a strict schedule every day and can question authority. Previous research has indicated that to adapt, veteran students truly must change their whole

mindset, which is challenging (Tinoco, 2014). Tinoco (2014) also noted that veterans were less likely to achieve a higher education degree than nonveterans or nonmilitary individuals. Challenges faced by veteran students include lack of academic preparation, lack of understanding about how to proceed in the college environment, issues with VA paperwork or policies, financial costs, and combat-related disabilities. Additionally, veteran students may experience symptoms of PTSD and depression as well as substance abuse. In sum, the transition of a military member to college is challenging enough due to institutional factors, such as payments for tuition and confusing enrollment procedures; however, veteran students also enter college with many other personal issues such as mental health and family problems and may struggle with these issues along with social issues throughout college (Tinoco, 2014). The remainder of this section will discuss identity and retention challenges that are commonly experienced by veteran college students.

Veteran students' challenges with identity. The transition from military to college life results in veterans juggling multiple roles, including that of a military member, a civilian, and a student; not surprisingly, this issue can be psychologically taxing. Naphan and Elliott (2015) sought to understand the perspectives of veteran students when transitioning to college. In this qualitative study, Naphan and Elliott reviewed interviews of 11 student veterans to understand better their experiences with the transitions from military to college. The main themes generated from respondents included task cohesion, structure in the military environment, responsibilities of serving in the military and release anxiety, combat experience, and group cohesion in the military. Task cohesion referred to the tendency for military members to be deindividualized and only work on tasks together (Naphan & Elliott, 2015). The military structure is strict and ordered, which is different from the environment on college campuses; this aspect can lead to

communication and integration challenges. The theme of military responsibilities regarded being given great responsibilities, usually at an early age, which makes transitioning to college difficult due to the lack of major responsibilities. All but two of Naphan and Elliott's (2015) participants were deployed, and they noted that during combat, they engaged in behaviors and had thoughts that were illegal; it was difficult to erase those experiences when suddenly transitioning back to civilian life. Lastly, group cohesion was reported as quite common in the military, where groups of military members did everything together; this aspect could make transitioning to a college campus, with a variety of social groups and cultures difficult (Naphan & Elliott, 2015).

In addition, Jones (2013) discussed the challenges that veteran students faced due to the need to combine their identities as military members, civilians, and students. Jones conducted the phenomenological study to focus on the experiences of three full-time veteran college students attending a university with a high number of veteran students. The university also had an active Student Veterans of America chapter. Jones used criterion sampling to choose the three participants. Two of the participants were males (Jones, 2013). After the interviews were conducted, Jones (2016) found several themes. One of the greatest difficulties that student veterans reported experiencing was adapting to civilian life, partly due to the strict nature of the military and the more lenient nature of college; in a way, veteran students struggled with their identities and new roles as students. Additionally, interviewees reported that there was a need for more support and services for veteran students (Jones, 2013).

In a review of archival data, Alschuler and Yarab (2016) aimed to identify patterns in veteran student retention. Alschuler and Yarab interviewed veteran students about their college experiences. Results yielded many emerging challenges for veteran students, for instance, transitioning to civilian life (let alone college life) was a transition, as was handling multiple

roles and identities (as a military member, civilian, and student). Respondents also reported having to deal with challenges related to medical and psychological problems; these issues in turn could hinder veteran students from achieving their full potential in the academic setting and interfere with their motivation to graduate. Respondents noted that college faculty and staff needed to be better educated about veteran students' needs and services for veteran students on campus should be extended (Alschuler & Yarab, 2016).

Veteran students also struggled with managing different identities (i.e. their identities as military members, civilians, and students; Alschuler & Yarab, 2016). Hammond (2016) indicated veteran college students faced challenges related to identity, specifically having to adapt to identify as a college student postdeployment. Gregg, Howell, and Shordike (2016) examined 13 student veterans who transitioned from the military to higher education. Main themes that emerged in the experiences of student veterans included adapting to civilian lives and creating a civilian identities.

Other researchers examined the difficulties of managing identities and the roles of veteran students. Borsari et al. (2017) examined the challenges of student service members (SSM) and veteran students when attending college, while evaluating current college programs that aimed to assist student service members and veteran students. Results from the literature reviewed showed that SSMs and veteran students reported problems with connecting with other students, and they struggled with managing multiple identities. Another theme was reporting mental health problems and physical disabilities. Another issue for some SSMs was the risk of facing deployment while in college (Borsari et al., 2017). Additionally, military environments were strict and structured; therefore, some SSMs and veteran students found it challenging to navigate college life where they had fewer rules and responsibilities. This finding related back to

the stress processing theory suggested by Pearlin (1989) because the roles and expectations of being a veteran and a student could be conflicting. SSMs and veteran students also exhibited an unawareness for programs and benefits offered to military students. Overall, the results indicated that transitioning from the military to a college campus was a challenge, and there was a lack of consensus on the efficacy of programs aimed at helping SSMs and veteran students with adapting to college life and achieving academic success (Borsari et al., 2017).

Additionally, Herbst (2013) showed that aspects of veteran students' lives and the transition to higher education included the amount of time between leaving the military and entering into college, cultural differences for military versus nonmilitary students, their abilities to balance school and social lives, and psychological issues that resulted from exposure to trauma while in the military. Additionally, some other factors that made transitioning to college difficult for veteran students included feeling that they lost their military support network and needing to secure their own housing, healthcare, and source of income (Herbst, 2013), which also relates back to Pearlin's (1989) proposition that inter-role conflict can be a form of stress.

Similarly, Sportsman and Thomas (2015) discussed that veterans have challenges with both transition to civilian life and transition to college. One of these challenges was financial, and another key challenge was connecting with nonveterans. This finding might be partly due to student veterans' tendency to lack patience for the mundane events and situations that happened on college campuses. Additionally, student veterans were noted as different on campus, but this difference could turn into alienation. Another struggle that pertained to college transition was the common belief among veteran students that college policies and procedures were not logical, possibly stemming from the change in environments from an orderly and structured environment to an environment with fewer constraints (Sportsman & Thomas, 2015). As Pearlin (1989)

suggested in his stress processing theory, playing conflicting roles in society led to stressors; here, veterans were forced into the role of a student, and the demands were in conflict of with the demands of being in the military. Sportsman and Thomas (2015) suggested that student veterans be given detailed instructions of assignments and coursework so that they could effectively understand procedural matters. The researchers also noted that student veterans might struggle with mental health disorders, and even though most faculty members would not be fully trained to handle such diagnoses, they should be able to identify symptoms so that they could make recommendations outside of the classroom before issues escalate (Sportsman & Thomas, 2015).

Veteran students' challenges with retention. Struggling with managing multiple identities may influence college retention, but there are other factors that may also impact retention. Elliott (2015) discussed the increase in veteran students attending higher education since the passing of the G.I. Bill and the challenges faced by veteran students transitioning to college. Elliott noted that the stress process theory was the backbone of the investigation of the relations between military culture, stress, social factors, and educational factors because stress process theory proposed that an individual's place in society influenced the amount of stress and resulting mental health issues that they would face. Transitions out of the military can be particularly stressful; for instance, veterans may face financial issues and unemployment. In fact, this review noted that unemployment has been shown to be higher in veterans than nonveterans (Elliott, 2015).

Thus, the transition to college after military service is even more difficult; veterans have challenges dealing with a less structured environment with people whose views are different than their own and may also experience impacts from physical and psychological wounds (Elliott, 2015). In the research study, there were 626 veteran students who participated, and

approximately 75% were male. The results showed that veteran students face more stress than nonmilitary students, including depression (which was linked to combat exposure), and financial hardship. Social support from one's family and friends was related to depression and PTSD, where elevated levels of support was associated with low levels of depression and low levels of PTSD (Elliott, 2015).

In a review of archival data, Alschuler and Yarab (2016) identified patterns in veteran student retention. Alschuler and Yarab studied veteran students' retention rates and persistence in college. The first phase of the study showed that, overall, veteran students had an average graduation rate of 50%, which was not different than the national average. Transitioning to college life is a great challenge for veteran students (e.g., Miles, 2014; Naphan & Elliott, 2015; Vacchi & Berger, 2014; Voigt, 2016). For instance, Pellegrino and Hoggan (2015) found that two of the main challenges faced by veteran students were financial stress and issues adapting to a less strict and structured environment. Additionally, Jovanovic et al. (2016) proposed that veteran students faced challenges from transitioning to college because they moved from a strict, disciplined, and structured military environment to an environment with more freedoms and fewer time constraints.

In addition, Jenner (2017) aimed to better understand the transition process from military to college student and to identify potential factors impacting degree attainment and retention. Jenner noted that veteran students faced challenges as they transitioned to and throughout college. For instance, veteran students faced financial issues, lack of academic preparation, and gaps in education which put them at risk for dropping out. Research showed that gaps in education might impact engagement or investment in academics and receiving a college degree (Jenner, 2017). However, like traditional or nonveteran students, veteran students faced issues

with finances and balancing school life with social and other parts of life. Some key barriers faced specifically by veteran students included displaying symptoms of mental health issues, facing a lack of education benefits that they might receive as a veteran, and transitioning to civilian and student life from being in the military. These issues cause problems balancing different identities. Lastly, peer support was shown as a positive factor impacting the academics and college experience of veteran students (Jenner, 2017).

Previous researchers attempted to understand factors that could help veteran students succeed. For instance, Norman et al. (2015) examined the challenges and facilitators involved in veteran students' transition from military to college. A total of 31 veterans participated in the study; of these, 24 participated in focus groups, and seven were interviewed individually. Veteran students noted that they were appreciative of supports and organizations for veteran students on campus. Challenges reported were with the Veterans Benefits Administration and funding or financial issues, although there were reports of veterans being appreciative of the Veteran education benefits. Overall, this study showed that individualistic factors impacted veteran students' transition to college and their academic success. Veteran students also reported concern with how colleges addressed veterans, as well as with the G.I. Bill's requirements for obtaining a college degree (Norman et al., 2015).

In conclusion, veterans faced challenges when adapting to civilian life after leaving the military (e.g., Tinoco, 2014). In general, civilian life is much less structured than military life, so adapting requires changing mindsets. There is also the challenge of managing multiple identities: as a military member, as a civilian and as a student (Jones, 2013). This can be even more difficult when psychological and physical disabilities are present that resulted from time served in the military (Tinoco, 2014). Transitioning further into life as a college student was also

difficult due to the less structured environment and ability to question authority, which was much different than in the military (e.g., Jovanovic et al., 2016; Pellegrino & Hoggan, 2015; Tinoco, 2014). In addition, veteran students were often unprepared for academics and had gaps of time since they were last in the educational environment (Jenner, 2017). Veteran students might also face financial issues (Jenner, 2017; Sportsman & Thomas, 2015) and issues with receiving VA benefits for tuition payment (e.g., Tinoco, 2014).

Although student veterans might face various challenges while transitioning to college life, they also had many strengths, including the ability to adapt, to prioritize tasks and goals, being self-motivated and disciplined (Granger, 2016), and to be organized (Norman et al., 2015). Colleges should have the resources and staff needed to accommodate student veterans and utilize their strengths while transitioning to college (e.g., Wilson, 2014). Social support was crucial to the successful integration and academic success of veteran students (e.g., R. Campbell & Riggs, 2015; Romero, Riggs, & Ruggero, 2015; Whiteman, Barry, Mroczek, & MacDermid-Wadsworth, 2013), which included interactions with staff (Falkey, 2014). Veteran students should receive the mental health, financial, and childcare/family services that they need (Sitzes & Akroyd, 2018). Lastly, college leaders need to be adamant about avoiding stereotyping their veteran students (e.g., Vaccaro, 2015); instead, college leaders should focus on promoting the strengths of veteran students (e.g., Church, 2009).

Integration of Strengths and Needs of Veteran Students

Strengths of veteran students. Colleges could benefit from working with the strengths of college students; even though veteran students have unique challenges, they also have unique strengths. Granger (2016) discussed strengths of veteran students and factors that helped students succeed in higher education. These strengths and positive factors included being adaptable,

empathetic, able to prioritize goals, and self-motivated. Another strength of veteran students was that they tended to be very self-disciplined (Norman et al., 2015; Olsen, Badger, & McCuddy, 2014). Another set of skills that might ease the transition into college included organizational skills that veteran students had developed while serving in the military (Norman et al., 2015).

Other research indicated that colleges should build on the strengths that veterans tended to exhibit (Church, 2009). For instance, veterans showed elevated levels of resilience and often had a profound sense of purpose, particularly with group tasks due to loyalty toward teammates. Veteran students could bond over similar experiences and form high levels of trust; therefore, colleges should promote collaboration among veteran students; one method discussed by Church (2009) was veteran peer counseling. Veteran students are were self-disciplined, which could be helpful for staying on task and prioritizing (Church, 2009).

The importance of support during academic transition. The changing trends of degree attainment may be partly due to the elevated level of support needed for veteran students, and support is a critical component of Pearlin's (1989) stress processing theory. Cate (2013) found that nonveterans reported greater percentages of college graduation. The study highlighted that veteran students are attending college at higher rates than reported in earlier years; therefore, colleges need to be prepared to support veteran students as they transition from the military to college life (Cate, 2013). Similarly, Wilson (2014) highlighted the importance of a system of support, rather than any one singular means of support, for veteran students to transition to college life and succeed in higher education.

Sitzes and Akroyd (2018) and Persky and Oliver (2010) noted that veterans faced financial and integration issues when transitioning to college. Suggestions included better training and educating college staff and faculty. Additionally, Pomerantz, Kearney, Wray, Post,

and McCarthy (2014) highlighted the importance of integrating systems of care for veterans, specifically to include mental health services. The efforts to integrate better care already increased treatment of mental health issues among veterans.

Vaccaro (2015) interviewed 11 student veterans to better understand the college experience of veteran students. One major issue reported was being stereotyped or unfairly judged based on their military experiences, even though the students themselves were otherwise different. Rejecting stereotypes is a crucial step in creating college campuses that are military-friendly. Being integrated into college life rather than being stereotyped is important (e.g., Vaccaro, 2015).

Olsen et al. (2014) examined active duty and veteran college students' strengths and weaknesses in the college setting. The researchers used semistructured interviews for data collection on veterans' ideas about their own strengths and challenges that they faced as they entered college lives and transitioned from military members to students. Ten veteran students participated in the study, and seven of them were males. Olsen et al. questioned why participants believed veteran students might not engage in the social and academic programs offered to them to find resources to help veteran students of the future.

Badger and McCuddy (2014) found that there was a need for program helpers to aid veteran students in connecting with one another for social interactions at college. In another study regarding social support, E. J. Campbell (2016) examined the self-determination framework displayed by veteran students in a cohort model designed to help veteran students achieve academic success. A total of 17 veteran students who attended community college were interviewed, and results showed that feeling supported and connected with other student veterans

helped to motivate veteran students. E. J. Campbell (2016) provided support for college programs to build feelings of community and motivation for veteran students.

Cole and Kim (2013) also identified some of the challenges faced by veteran students, with the main challenge being integration. Veteran students do not report elevated levels of social support of engagement in college life. Integration to college life is important for veteran students, and colleges should be prepared to offer programs to help student veterans with this process (Cole & Kim, 2013). Additionally, Falkey (2014) examined the experiences faced by community college and 4-year college veteran students. Results showed that community college students reported more interaction with faculty and little interaction with other students (even other veteran students). However, the 4-year college students reported low levels of interaction with faculty, but elevated levels interaction with other student/veterans; these students also reported little interaction with nonveteran students (Falkey, 2014).

Haynes (2016) suggested that college leaders should create a roadmap for tailored for these students, hold an orientation specifically for veteran students, and consider a strategic outreach program to connect with and understand the concerns and needs of these students. Heitzman and Somers (2015) noted that although a higher percentage of female veterans obtained their higher education degree, their unique needs as veteran students were not really addressed, resulting in the feeling that they withdrew from other students and college life.

In another study, Layne (2016) examined feedback from veteran students to help evaluate whether colleges were well-prepared to assist and accommodate veteran students. Results showed that resources and opportunities for student veterans to receive emotional and social support were limited. One suggestion was to educate better university staff so that they were more prepared and aware of issues faced by student veterans (Layne, 2016). R. Campbell and

Riggs (2015) found that support from military personnel during time spent in the military as well as social support while in the college setting is important for veteran students' academic success.

Goldberg, Cooper, Milleville, Barry, and Schein (2015) discussed suggestions for college programs to meet the needs of veteran students better, including adding more structure to programs and partnering with veteran services organizations. The study was rooted in the social cognitive career theory (SCCT) and student engagement theory. SCCT proposes that career-related behaviors are impacted by many other factors, such as gender, culture, social events, and unexpected life events. Student engagement theory proposes that students perform better when they are engaged and invested in their academics, which includes applying what they are learning to their own lives (Goldberg et al., 2015). The review then discussed results from an expert panel of student veterans regarding their transition to college. The first theme that emerged was the challenge of transitioning to college. Second, the timeline of transitioning, or order and events that led up to attending college was hectic and confusing. Third, veteran students felt that they were lacking the support they once had while active in the military; this in turn has led to more psychological issues. Fourth, being a non-traditional-aged student was a difficulty for veteran students; on average veteran students are 5 years older than their classmates. Suggestions for college campuses were increase training and support for veterans such as academic career advising and mentoring programs. Increased collaboration with veteran organizations was also recommended (Goldberg et al., 2015).

Romero et al. (2015) collected data from over 100 veteran students that showed that using avoidant coping significantly predicted experiencing posttraumatic stress symptoms. The key role of social support was also highlighted: family social support moderated the relationship between problem-focused coping and depression, and the relation between avoidant coping and

symptoms of anxiety and depression. This study helped to show coping strategies that veteran students should avoid and emphasizes the need for veteran students to have social support (Romero et al., 2015).

Kirchner (2015) discussed that veteran students face many challenges unique to being in the military such as stereotypes and adapting to a less structured and strict environment. The researchers also described programs and resources that colleges can use to help veteran students feel safe and succeed in academics, including but not limited to student veteran organizations, orientations for veterans, veteran resource centers and trainings for university faculty (Kirchner, 2015).

Researchers examined the resources that colleges provided to veteran students to aid in the transition from military life to college life and the challenges faced by veteran students (Griffin & Gilbert, 2015). Purposeful sampling was used to recruit enough veterans more easily for the study, but faculty, administrations and other students also participated. One-hundred participants underwent interviews; of these, 28 were students and 72 were college staff and personnel (Griffin & Gilbert, 2015). Three main themes emerged. First, veteran students noted that professors should have resources that meet students' unique needs, and having more resources would help them feel more in control of their transition. Second, veteran students indicated that institutional services were important. Third, social support and integration into the social environment of college was identified as important for veteran student success; veterans felt they did not relate to traditional aged college students, so leaders of programs and campuses should work to foster an inclusive environment with a greater sense of community. There is no one approach that works for all student veterans; college leaders should consider the experiences

and needs of each individual student veteran to accommodate them better as they make difficult life transitions (Griffin & Gilbert, 2015).

Structure and support from colleges is important, but social support is also crucial for veteran students. Whiteman et al. (2013) found that student service members and veteran students reported less social support than nonmilitary students. An increased level of peer support was related to positive academic and mental health outcomes. In another study, Gregg et al. (2016) examined 13 student veterans who transitioned from the military to higher education. A main theme that emerged was the importance of engaging in social interactions with other college students.

Semer and Harmening (2015) sought to understand better the experience of student veterans and specifically identify factors that helped them progress academically. The quantitative study used a non-experimental design and involved a sample of first-year student veterans in Ohio. The study found that race, number of credit hours, discussing career goals, receiving feedback from professors regarding academics, participating in college events, exercise, and commute time to college were all significantly related to veteran students' GPA after their first semester of college (Semer & Harmening, 2015). Importantly, the findings from the study indicated that college personnel can take certain actions to help veteran students succeed. When removing the challenges, such as commute to work, family-related problems, and race-driven factors, college leaders could assist student veterans in their transition to college life. Additionally, student veterans were adamant about not receiving special treatment; instead, they desired college personnel to understand their background and diverse experiences, and the challenges they faced (Semer & Harmening, 2015).

Sitzes and Akroyd (2018) found that five factors were key to the success of veteran students in community colleges: social support from family or friends, adequate counseling and mental health services, assistance with financial aid/tuition, access to child care, and veteran recognition activities. Whiteman et al. (2013) found that student service members and veteran students reported less social support than nonmilitary students. Increased peer support was related to positive academic and mental health outcomes.

Hart and Thompson (2013) conducted a study regarding veteran students' performance in writing classes involved two phases. In the first phase of the study, an online survey was sent to respondents, and there were 439 completed responses. Respondents represented more than 205 universities. In the second phase of the study, site visits were conducted with staff and Veterans Resource Centers (on campuses). Results from the study showed that although there has been an increase of veteran students, there has not been an increase in training, support or resources offered to university faculty to help guide veteran students as they transition to college life. For instance, although two-year and online colleges offer more first-year writing courses for student veterans than 4-year universities, these colleges are not as equipped to provide services and supports for veteran students. Additionally, the pressure placed on student veterans to achieve a degree in a strict time adds to stress and challenges that veteran students face (Hart & Thompson, 2013).

Research indicated that when given beneficial amounts of support, veteran students could succeed academically. For instance, Ackerman, DiRamio, and Mitchell (2009) examined a total of 19 male veterans and six female veterans who transitioned to college. One of the first themes to emerge throughout interviews was the desire to serve and fulfill their duties, which was noted as a common reason for joining the military. The study indicated that veteran students had

special needs but were still likely to be successful if these needs are met by university staff

(Ackerman et al., 2009). Many respondents had been deployed, served in a war zone, and had

been wounded. Out of the many transitions they had already experienced (i.e., transitioning to

the military and throughout the military), transitioning from the military to a civilian, and then to

a college student was reported to be the most challenging. Several respondents noted that their

college did have helpful resources and friendly personnel who tried to assist with their transition

to college life; however, defining a veteran-friendly college was a difficult task for respondents,

leaving it clear that college campuses were not fully equipped to accommodate veteran students

(Ackerman et al., 2009).

Gender Differences among Veterans

Research indicated that being a veteran student might place individuals in a unique social

position which leads to experiencing stressors, but researchers also suggested that the stressors

faced by veteran students might be related to their gender. For example, Burkhart and Hogan

(2015) discussed the unique challenges faced by female veteran students. A total of 20 female

veterans participated in the current study. About 65% of the participants were Caucasian and the

remainder were African American (35%), with an average age of 45 years, and there was a wide

range of time served in the military (2 to 30 years). A major theme was the attempt to cope with

the transition to college life (Burkhard & Hogan, 2015). Respondents reported their experiences

with war and experiences of shock while in the military. Respondents also discussed their

experiences with sexual assault while in the military and that their various experiences have

hardened them. Regarding being a college student, female veterans reported a few main

challenges: they felt that they were living a double life, as a military member and a student; they

felt like they were unprepared for civilian life; and they reported that living with PTSD was a challenge (Burkhart & Hogan, 2015).

Alfred, Hammer, and Good (2014) examined masculinity among active duty members and veterans who were attending college. Conformity to masculine norms was negatively correlated to psychological well-being, indicating both those in active duty and veteran college students are at risk for mental health issues. Barry et al. (2014) compared veteran students to nonveteran students in the college setting. Veteran students were more likely than nonveterans to display signs of psychological and behavioral problems and adjustment issues to college life, including a feeling of disconnect between veteran students and nonveteran students (Hammer & Good, 2014). Therefore, there might be gender differences regarding well-being and adjustment to college life based on male/female veteran students' level of masculinity.

Additionally, DiRamio, Jarvis, Iverson, Seher, and Anderson (2015) used a mixed-methods approach to examine student veterans' help-seeking behaviors and opinions with a focus on female student veterans. The results showed that help-seeking behaviors/attitudes were not significantly different between males and females, although another factor did: military culture and values. Military culture and values were shown to impact female veteran students' help seeking attitudes, but it did not do so for male veteran students (DiRamio et al., 2015). This review also found that women veteran students who exhibited pride, a typical military cultural context, were less likely to seek help, even when they really needed it. The findings suggested that campuses help veteran students by emphasizing the military values that work to their benefit. For instance, a value of the military is community and team building; therefore, if this is increased, veteran students may feel more comfortable approaching college staff when they need

help. Student veteran organizations can also participate in similar activities to build student veterans' sense of community with other college students (DiRamio et al., 2015).

Tsai, Rosenheck, and Kane (2014) examined issues faced by homeless female veterans. Even though females were less likely to experience deployment, they are more likely to show symptoms of PTSD. Homeless female veterans were younger, more likely to have substance abuse issues, and more likely to have dependents with them than male homeless veterans. However, female homeless veterans also had some strengths compared to male homeless veterans including better working relationships and faster admittance into assistance programs (Tsai et al., 2014).

In conclusion, there may be potential gender differences among veterans. Research has highlighted that females report struggling with living with two different identities and being unprepared for life after the military (Burkhart & Hogan, 2015). Regarding seeking help, male and female reports did not differ, however factors that influenced help-seeking did (DiRamio et al., 2015). Additionally, when females exhibited high levels of pride, they were less likely to seek help, even when they needed it; however, this was not true for males (DiRamio et al., 2015). Research has also shown that females are even more likely than males to display symptoms of PTSD (Tsai et al., 2014). The next section will discuss different programs that aim to accommodate male and female student veterans.

Current Programs for Veteran Students

The G.I. Bill led to the increase of veterans attending colleges as well as the number of programs implemented to support and accommodate veteran students. This section will review school-funded programs as well as VA-funded programs that aim to help veteran students succeed.

School funding. Some school-funded programs have been implemented to try to ease the transition for veteran students and increase academic success (e.g., Ahern et al. 2015; Allen, Armstrong, Saladiner, Hamilton, & Conrad, 2014). Allen et al. (2014) examined two programs aimed at assisting veteran students enrolled in a college nursing program. Findings suggested that although finances remained a struggle, other challenges were faced by veteran students, such as going on campus for the first time. The Prior Learning Assessment (PLA) has been shown to help veteran students move at their own pace and advance if they already exhibit enough knowledge; this helps to ensure that veteran students are challenged. The PLA offers each veteran student a personalized curriculum and helps to ensure that they are challenged but also engaged in their academics. By completing a standardized test prior to entering college, the PLA helps to identify gaps in knowledge, resulting from the gap in education while serving in the military (Allen et al., 2014). The PLA can also help identify veteran students who are ahead in academics, allowing them to apply hours for coursework or clinical work as well as class credits that they have already shown knowledge of to expedite their course plan. The use of this competency-based tool helps to tailor curricula and has shown to be especially helpful for student veterans. This evaluation relates to the current study because of the link between funding and programs for veteran students and the success of veteran students (Allen et al., 2014).

Kees, Risk, Meadowbrooke, Nellett, and Spinner (2017) examined the nationwide peer support program for student veterans, Peer Advisors for Education (PAVE), which had trained peers to provide outreach, support, and links to resources to assist student veterans. Researchers showed PAVE positively influenced veteran students. The review began by discussing the difficulties that veteran students experience when transitioning to college, including but not limited to financial issues and being older than traditional college students. The researchers also

noted the tendency for veteran students to not seek help when needed out of fear of stigma (Kees et al., 2017). To combat the fear of being stigmatized, peer programs may be an effective way for veteran students to discuss issues and connect on a social level with their college peers. This review then focuses specifically on PAVE. This peer support program involves experienced student veterans (not first-year students) who meet with new or incoming student veterans. These peers offer a sense of community and can also provide new veteran students with resources and information they need to help with their transition to college and progressing throughout college. PAVE has been implemented across 40 college campuses (Kees et al., 2017).

VA benefits. VA benefits for veteran students have increased since the implantation of the G.I. Bill (e.g., Sutton, 2016). The American Council on Education (ACE, 2015) collaborated with the U. S. Department of Defense and higher education to review military training and experiences for the award of equivalent college credits for members of the Armed Forces and to evaluate military training, course work, and occupational experience. Veterans of America provide campuses with a model to foster safe and positive meetings of veteran students on campus (Church, 2009). Additionally, Norman et al. (2015) had their participants complete self-reported measures related to trauma and health, including psychological health and substance use. Participants were also interviewed about experiences related to veteran-friendly campuses and challenges throughout college. A total of 31 veteran students participated in the study and most were male. Participants reported positive feedback regarding college programs that offered priority registration and counselors for veterans' academic and financial needs (Norman et al., 2015). The veteran students also suggested that the Veteran Campus Toolkit is a great tool for college faculty to review because it offers training that helps faculty to better understand the unique needs of veteran students. The participants also revealed that having activities for

veterans specifically and even hanging flags supportive of veterans can help to foster a veteran-friendly campus.

McCaslin et al. (2014) examined the Department of Veterans Affairs' Veterans Integration to Academic Leadership (VITAL) initiative. This initiative aimed to increase veteran students' access to resources and treatment through on-campus clinical services. The initiative also provided connections between VA Medical Centers and academic settings, and discussed the challenges faced by student veterans that transition to college such as problems related to establishing an identity, stress, and mental health issues. Future research is needed to evaluate the effectiveness of programs such as VITAL (McCaslin et al., 2014).

Another program for veteran students is Combat2College (Church, 2009). This program is helpful because it focuses on promoting the strengths of veteran students instead of focusing on their disabilities and weaknesses. The program is also beneficial because it takes a comprehensive approach to accommodate veteran students by offering healthcare that includes mental health care as part of comprehensive student care. Additionally, the program helps to provide veteran students with relevant resources, fosters social interactions among veteran student groups, and builds trust among veteran students (Church, 2009).

Efficacy of programs for veterans. Despite the increase in use of funded programs for veteran students, research was lacking on the efficacy of these programs (e.g., Coll & Weiss, 2016). Borsari et al. (2017) found a lack of consensus on the efficacy of programs aimed at helping SSMs and veteran students with adapting to college life and achieving academic success. Additionally, Callahan and Jarrat (2014) found that a lot of money and resources were put into these programs, but research on the efficacy was limited.

Evans, Pellegrino, and Hoggan (2015) discussed the lack of solid evaluations of such programs; the evaluations were found to be untested or in need of modifications to truly address the special needs of veteran students. Spencer (2016) noted suggestions for college faculty to better accommodate veteran students including more education, avoiding generalizations about military members or veteran students, and developing relationships with other offices/personnel to build a stronger network of support for veteran students. Summerlot, Green, and Parker (2009) discussed the importance of college veteran organizations; these organizations help integrate veteran students into college life and have positive impacts on veteran students' academic success.

In conclusion, various programs, both school-funded and VA-funded, exist for the purpose of alleviating challenges faced by veterans transitioning to college students. For instance, Allen et al. (2014) showed helpers of the PLA aided veteran students to move at their own pace and advance if they already exhibited sufficient knowledge; helpers ensured they challenged veteran students. There is also a nationwide peer support program for student veterans, PAVE, which uses trained peers to provide outreach, support, and linkage to resources to assist student veterans and has been shown positively impact veteran students (Kees et al., 2017). Additionally, VA benefits have increased due to the implementation of the G.I. Bill (e.g., Sutton, 2016), and the Veterans of America provide campuses with a model to foster safe and positive meetings of veteran students on campus (Church, 2009). The Veterans Integration to Academic Leadership (VITAL) initiative aims to increase veteran students' access to resources and treatment through on-campus clinical services and to link VA Medical Centers to academic settings (McCaslin et al., 2014). Combat2College (Church, 2009) is another program for veteran

students that focuses on promoting the strengths of veteran students instead of focusing on their disabilities and weaknesses and providing comprehensive healthcare (Church, 2009).

Chapter Summary

The introduction of the G.I. Bill led to an increase in veterans seeking higher education (e.g., Radford et al., 2016). Veterans faced many challenges after leaving the military (e.g., Radford et al., 2016; Reeves et al., 2016). Some common psychological challenges faced by veterans included PTSD and depression (e.g., Koo et al, 2015; Vaughan et al., 2014); psychological issues have been shown to be related to poor academic performance (Dasarathy, 2015) and self-injurious behaviors (Fortney et al., 2016). Veterans were also more likely to exhibit drinking problems (e.g., Grossbard et al., 2014; Miller et al., 2016). Veterans tended to avoid seeking treatment (E. E. Bonar et al., 2015). Previous literature indicated that veterans were in a unique social role on college campuses, which might put them at risk for experiencing a variety of stressors; this finding aligned well with the stress processing theory proposed by Pearlin (1989) because their social and economic position created various stressors, such as lack of academic preparation from their gaps in education and financial stressors. These stressors could hinder the academic success of veterans during their college experience.

One challenge faced by veteran students was adapting to an unfamiliar environment; civilian life was much less structured than military life, and adapting required changing mindsets. There was also the challenge of managing multiple identities: as a military member, as a civilian, and as a student (Jones, 2013). In addition, veteran students were often unprepared for academics and had gaps of time since they were last in the educational environment (Jenner, 2017). Veteran students might also face financial issues (Jenner, 2017; Sportsman & Thomas, 2015) and issues with receiving VA benefits for tuition payment (e.g., Tinoco, 2014).

Furthermore, despite the increase in veteran students attending college, colleges were not prepared to accommodate veteran students (e.g., Hart & Thompson, 2013).

However, veteran students displayed many strengths, including the ability to adapt, prioritize tasks and goals, be self-motivated and disciplined (Granger, 2016), and be organized (Norman et al., 2015). Colleges should have the resources and staff needed to accommodate student veterans to utilize their strengths while transitioning to college (e.g., Wilson, 2014). Social support was crucial to the successful integration and academic success of veteran students (e.g., R. Campbell & Riggs, 2015; Romero et al., 2015; Whiteman et al., 2013), which included interactions with staff (Falkey, 2014). Pearlin (1989) stressed the importance of social support when dealing with stressors, which was why the current study aligned well with Pearlin's (1989) stress processing theory.

Research indicated that the transition from military to college might differ based on genders; in other words, veterans might be at risk for experiencing more stressors based on their gender. Burkhart and Hogan (2015) stated their female participants reported struggling with living with two different identities and being unprepared for life after the military. Regarding seeking help, male and female reports did not differ; however, factors that influenced help-seeking did (DiRamio et al., 2015). For instance, cultures and values of the military influenced females' help-seeking behaviors, but these factors did not influence males' help-seeking behavior. Additionally, when females exhibited elevated levels of pride, they were less likely to seek help, but this finding was not true for males (DiRamio et al., 2015). Tsai et al. (2014) showed that females were more likely than males to display symptoms of PTSD.

Previous researchers highlighted that different programs, both school-funded and VA-funded, existed to alleviate challenges faced by veterans transitioning to college students. These

programs included the PLA (Allen et al., 2014), Peer Advisors for Education (Kees et al., 2017); the Veterans of America framework (Church, 2009), the Veterans Integration to Academic Leadership (McCaslin et al., 2014), and Combat2College (Church, 2009). Based on the gaps in the literature, I examined the characteristics/profile of veteran students, the influence that VA benefit funding had on veteran student programs, the influence that school funding for veteran student programs had on academic success and graduation rates for veteran students, and whether gender of veteran students moderated the effect of funding in academic success and graduation rates.

Chapter 3: Methods

The purpose for conducting this quantitative, historical, non-experimental correlational study was to determine whether targeted programs for veteran students were helpful to show how best to allocate resources for their education. Specifically, this study investigated the relationships between school funding, VA benefit funding, academic success, and graduation rates.

What now follows is a discussion of the rationale for the research design, as well as the methodology. The population and sampling procedures, as well as recruitment, participation, and data collection, are addressed. The instrumentation and operationalization of constructs and data analysis procedures are explained. Threats to validity and ethical procedures are identified. The chapter concludes with a summary of Chapter 3.

Sample

As of 2013, there were over 1 million veteran students attending college in the United States, a 100% increase from the roughly 500,000 veteran students in 2009 (VA Campus Toolkit, 2013). These students represented 4% of the student body, a percentage that increased as more veterans returned from Iraq and Afghanistan; however, there were few up-to-date data sources on the current state of this demographic (American Council on Education, 2015). Nevertheless, I did not focus on the veteran students themselves; instead, I focused on the colleges at which they enrolled. According to the VA Campus Toolkit (2013), "79% Student Veterans using GI benefits are attending public schools. The remaining 21% of veteran students are equally split between non-profit private schools and proprietary schools" (para. 2). Additionally, over 80% of veteran students were concentrated into 23 states (American Council on Education, 2015). Thus, the study population consisted of the public universities in those 23 states.

In terms of the sampling method used for this study, the researcher employed purposive sampling. Purposive sampling is a non-probability sampling technique where a researcher relies on his or her own judgment when choosing members of population to participate in the study based on characteristics of a population and the objective of the study (Yang & Banamah, 2014). Purposive sampling was conducted because it had certain advantages applicable for this study. These included greater accessibility, faster speed, and lesser costs associated in recruiting samples for the study (Coy, 2019). Only institutions for which data on veteran students were available either publicly or through the schools were used. The study was also limited to American veteran students, and I did not include international veteran students or account for demographics other than gender in its analyses.

Sampling was carried out through accessing publicly available records and what data these school leaders were willing to provide, and the final sample consisted of all applicable schools for which data were available. A minimum sample size was determined with G*Power 3.1.9.2 (Figure 1). A minimum sample size of 77 veteran students was required to detect a difference of medium effect size of $f^2 = .15$ at 5% confidence with 80% power to conduct multiple regression with three independent variables (graduation rate, academic success, and gender). Figure 2 provides a G*Power plot that determines the critical F value of $F = 2.730$ to detect statistical significance. If some individuals did not wish to be participate, recruiting continued until the required number was achieved.

F tests - Linear multiple regression: Fixed model, R² deviation from zero

Analysis: A priori: Compute required sample size

Input:	Effect size f²	=	0.15
	α err prob	=	0.05
	Power (1-β err prob)	=	.80
	Number of predictors	=	3
Output:	Noncentrality parameter λ	=	11.5500000
	Critical F	=	2.7300187
	Numerator df	=	3
	Denominator df	=	73
	Total sample size	=	77
	Actual power	=	0.8017655

Figure 1. G*Power sample size calculation to detect a medium effect size of f² = 0.15 at 5% confidence with 80% power.
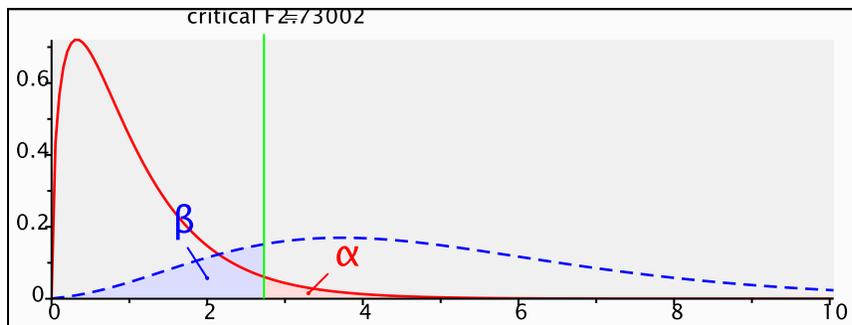
Figure 2. G*Power plot of critical F value required to conduct multiple regression to detect a medium effect size of f² = 0.15 at 5% confidence with 80% power.

Design

Because the objective was to measure relationships, a quantitative design was chosen for the current study. According to Choy (2014), quantitative studies allow researchers to measure phenomena to create assertions and draw inferences from analyses of data that can be generalizable to the population of interest. Specifically, I employed a correlational methodology. Researchers use correlations to establish the presence or absence of relationships between variables that allow for the quantification of these relationships (Hartman, Hunt, & Childers, 2013). Researchers can use quantitative designs to answer questions of "how many" and deal with relationships between variables (Lee, 2014). In the case of this study, the research questions were concerned both with numerical quantities (funding, graduation rate, and academic achievement scores) and questions of how variables, such as funding or gender, influenced other variables, such as graduation rates and success, The data used in the study derived from pre-existing quantitative records, meaning that an appropriate quantitative instrument for data collection already existed.

By contrast, the qualitative approach is suited to gathering exploratory, descriptive data (Lee, 2014). Existing researchers adopted a qualitative approach to studying veteran students (e.g., Haynes, 2016), meaning that most of this descriptive work had already been completed in the case of this study. Additionally, qualitative data dealt with perceptions and opinions (Turner, 2010), and therefore a qualitative approach would not yield the appropriate data for this study.

The specific quantitative design was non-experimental, historical, and correlational. Researchers of non-experimental correlational designs cannot predict causation, only correlations (Johnson, 2001). However, experimental designs are not always feasible; in the case of the study, the researcher could not manipulate variables, such as the amount of funding that veteran

students received. Researchers of correlational designs can still describe the relationships between variables and provide useful data (Johnson, 2001). Historical designs are used when the researcher has access to a large pool of existing data (Johnson, 2001), such as university and college records regarding veteran student graduation rates and funding. The researcher can create high statistical power without extensive data collection at the cost of having available only the data that are recorded in the record (Johnson, 2001). However, data for the variables that I wished to examine were available in the existing data. Thus, the historical approach was superior to a cross-sectional or longitudinal approach in the context of this study.

Data Source and Collection

Data were collected from public records. These records included data kept by schools and available in public databases, such as the GI Bill® Comparison Tool (U.S. Department of Veteran Affairs, 2015). These data were available through public databases; for example, the GI Bill® Comparison Tool (U.S. Department of Veteran Affairs, 2015) contained data on veteran student success. However, when the necessary data could not be gathered from public records, I attempted to contact the school in question to request the data. These data were general in nature; therefore, it was assumed these data would be readily available if requested from the appropriate sources, but data collection was revised when this assumption proved incorrect.

All data collection remained anonymous to ensure no harm was done to the participating institutions, but this was of limited concern due to the public nature of most of the desired data. When contacting schools, I provided informed consent documentation detailing the purpose of the student and its scope; submitting records was acceptance of inclusion in the study. Leaders of participating institutions using more than public data were free to withdraw their participation at

any point prior to the publication of results. These data might have included the following operational variables:

1. *Funding for veteran student programs:* These referred to an annual average amount of money in United States Dollars (USD) spent by the school on veteran student assistance programs. These data will be collected as continuous interval data.

2. *Funding received through VA benefits*: These referred to an average annual amount of money in USD that the school receives from student veteran's VA benefits. These data were collected as continuous interval data.

3. *Veteran student graduation rates:* These referred to the graduation rates for veteran students enrolled through the school in their chosen degree or certification programs. These data were collected as continuous interval data. These data included separate averages for male and female veteran students.

4. *Veteran student GPA:* As a measure of academic achievement, data on the school's average GPA for veteran students were collected. These data were collected as continuous interval data measured from 0 to 4.0. These data included separate averages for male and female veteran students.

Internal validity refers to the ability of the experiment to correctly identify causal relationships. The study was observational, and the researcher did not attempt to explore causal relationships; therefore, threats to internal validity were generally not applicable. However, threats to statistical conclusion validity existed. Threats to statistical validity had three components: reliability of the instrument, data assumptions, and sample size. Data used in the study derived from pre-existing quantitative records, meaning that an appropriate quantitative instrument for data collection already existed. Thus, the reliability and validity of the instrument

used in this analysis were considered appropriate for use in this analysis. Data assumptions were

checked during the data analysis stage and were detailed in previous sections. Finally, an

appropriate sample size was calculated using power analysis to ensure there were no statistical

concerns regarding small samples. Therefore, there were not anticipated risks to statistical

validity.

External validity refers to the extent that study findings can be generalized to the larger

population and applied to different settings. The study was limited to universities and colleges in

the 23 states that contained most veteran students. In addition, I included only institutions for

which data on veteran students were available either publicly or through the schools. The study

was also limited to American veteran students, and I did not include international veteran

students or account for demographics other than gender in analyses. Thus, care should be taken

when generalizing the findings of this study to various locations, populations, and subjects.

Data Analysis

There were three phases of the data analysis process: the data preparation phase, the

preliminary phase, and the primary analysis phase. In the data preparation phase, I checked the

data for errors and missing values. Data with missing values were removed from the analysis.

After data checking, the preliminary analysis phase began.

In the preliminary phase, parametric assumptions of the multiple linear regression were

conducted. These assumptions included linearity, the normality of the standardized residuals,

homoscedasticity, and multicollinearity. To assess linearity and homoscedasticity, plots of the

standardized residuals and the standardized predicted values were examined. When the plots

were not curvilinear, then there was no violation of the assumption of linearity (e.g., Field, 2013;

Tabachnick & Fidell, 2012). Additionally, when the plots formed a rectangular pattern or did not

flare out on either end of the distribution, then there was no violation of the assumption of homoscedasticity (e.g., Field, 2013; Tabachnick & Fidell, 2012). Shapiro-Wilk's was performed to determine if these data were normally distributed (e.g., Field, 2013; Tabachnick & Fidell, 2012). Additionally, kurtosis and skewness statistics were generated to assess normality further. Finally, the variable inflation factor (VIF) was calculated for each variable to determine if there was a violation in multicollinearity between any two variables. When VIF scores were below 10, then there was no violation of the assumption of multicollinearity (see Field, 2013; Tabachnick & Fidell, 2012). The steps of data analysis testing of assumptions are summarized below:

1. Step 1: Test independence of residuals by using the Durbin-Watson statistic, which should be between 1.5 and 2.5.

2. Step 2: Test for a linear relationship between dependent variable and each independent variable by using visually inspecting SPSS scatterplots and partial regression plots.

3. Step 3: Test homoscedasticity using an SPSS scatterplot to check if residuals were equally spread over the predicted values of the dependent variable.

4. Step 4: Test for no multicollinearity by verifying that none of the VIFs were above 10.

5. Step 5: Test that residuals were approximately normally distributed using case-wise diagnostics option in SPSS.

The final stage was the primary analysis stage. In this stage, the statistical analyses were performed to answer the three research questions in which multiple linear regression was used. When the *p*-value was significant, meaning less than .05, the regression model had a significant predictor of the dependent variables (e.g., Field, 2013; Tabachnick & Fidell, 2012). When the

model was significant, then I rejected the null hypothesis. When the model was not significant, then the null hypothesis was not rejected.

Finally, the results of the linear regression were reported using the model summary table. This table contained the correlation coefficient, r squared value, and the F and p value used to determine if the model was significant ($p < .05$). The coefficients table, which contained the beta coefficients and the p value for the beta coefficients, showed if the individual variable in the model made a significant contribution to the model.

Summary

The transition from military to civilian life is challenging, and the transition to academia can be even more so, especially when most veteran students are also first-generation college students, transfer students from community colleges to 4-year universities, or both (Pesetski et al., 2014). There was a significant amount of effort and capital dedicated to the support of veteran students. However, there did not exist a similarly broad body of literature evaluating the success and efficacy of these efforts.

Academically, scholars have called for further research into veteran students, including general research on the demographic, which is poorly understood (Jones, 2013), and why these students succeed or fail in their academic endeavors (Cate, 2013). Additionally, researchers have requested future research into the effectiveness of veteran programs (Cole & Kim, 2013) and ways school leaders can best allocate resources to help veteran students succeed (Griffin & Gilbert, 2015). Thus, the current study findings contributed both socially and academically to the literature.

Chapter 3 included the methodology for this study. Data analysis occurred using the statistical program IBM SPSS, Version 22. Prior to analysis, data were manually cleaned of data

that were missing. Each of the variables was then calculated from the responses and collected into one data set for analysis. Chapter 4 contains the results from this analysis, which shall be followed by Chapter 5. Chapter 5 includes the findings related to those found in the literature review.

Chapter 4: Results

Veteran students are increasingly prominent in U.S. colleges and universities, with over a million students now using their VA benefits to pursue higher education. This number will continue to increase as more veterans return from their deployment. The purpose for conducting this quantitative, historical, non-experimental correlational study was to determine whether targeted programs for veteran students were helpful to show how best to allocate resources for their education. Specifically, I investigated the relationships between school funding, VA benefit funding, academic success, and graduation rates.

The sections that follow present a discussion of the descriptive findings of the and the data analysis procedures. The results of the analysis are presented for each respective research question. The chapter concludes with a summary of the study results.

Data Collection

Purposive sampling was used to select institutions for the study. The reasons for this sampling strategy included greater accessibility of participants at a faster speed and fewer financial costs associated with recruiting a sample (Coy, 2019). Only institutions for which data on veteran students were available either publicly or through the schools were included in the study. The study was limited to American veteran students, and I made no attempt to include international veteran students or account for demographics other than gender. Sampling was carried out through accessing publicly available records and data that school leaders were willing to provide, and the final sample consisted of all applicable schools for which data were available.

The objective of the study was to measure relationships; therefore, a quantitative design was chosen for the study. According to Choy (2014), researchers use quantitative studies to measure phenomena, create assertions, and draw inferences from analyses of data that can be

generalizable to the population of interest. Specifically, the researcher employed a correlational methodology. Researchers can use correlations to establish the presence or absence of relationships between variables to quantify these relationships (Hartman et al., 2013). Researchers use quantitative designs to answer questions of "how many" and deal with the relationships between variables (Lee, 2014). In the case of this study, the research questions were concerned both with numerical quantities (funding, graduation rate, and academic achievement scores) and with questions of how variables, such as funding or genders, influenced other variables, such as graduation rates and success rates.

Results

Twenty institutions were included in the sample for the study. Information on veteran graduation rates, veteran grade point averages (GPAs), veteran student program funding, and VA funding were collected. Table 1 below provides descriptive statistics for the study variables.

Table 1

Descriptive Statistics for Study Variables

	N	Min	Max	Mean	Std. Dev.
Veteran Graduation Rates (%)	20	0.00	66.00	40.85	15.65
Veteran GPA	20	0.00	3.10	2.58	0.66
Veteran Student Program Funding (Thousands)	20	0.00	4840.07	601.81	1372.08
Funding VA (Thousands)	20	2421.51	107615.52	30221.83	24954.75

Veteran graduation rates ranged from 0% to 66% ($M = 40.85\%$, $SD = 15.65\%$), GPAs ranged from 0 to 3.1, ($M = 2.58$, $SD = 0.66$), and student programming funding (in thousands of dollars) ranged from 0 to \$4,840.07 ($M = \$601.81$, $SD = \$1,372.08$). VA funding (in thousands) ranged \$2,421.51 to \$107,615.52 ($M = \$30,221.83$, $SD = \$24,954.75$).

Outliers were assessed by creating standardized values of the study variables. Table 2 provides the minimum and maximum for each variable.

Table 2

Standardized Values of Study Variables

	N	Minimum	Maximum
Veteran Graduation Rates (%)	20	-.44	3.09
Veteran GPA	20	-1.11	3.10
Veteran Student Program Funding (Thousands)	20	-2.61	1.61
Funding VA (Thousands)	20	-3.90	.80

Standardized values ranged from -0.44 to 3.09 for veteran graduation rates, -1.11 to 3.10 for veteran GPA, -2.61 to 1.61 for veteran student program funding, and -3.90 to 0.80 for VA funding. There were three data values that were more than 3 standard deviations; thus, these were deemed outliers in the study.

Next, normality was tested to ensure that these data were normally distributed. Visual inspections of histograms (Figures 3 through 6 below) showed that there was a violation of the normality assumption. Funding (both veteran student and VA funding) were positively skewed (Figures 3 and 4), and graduation rates and GPAs (Figures 5 and 6) were leptokurtic (i.e., had a high peak).
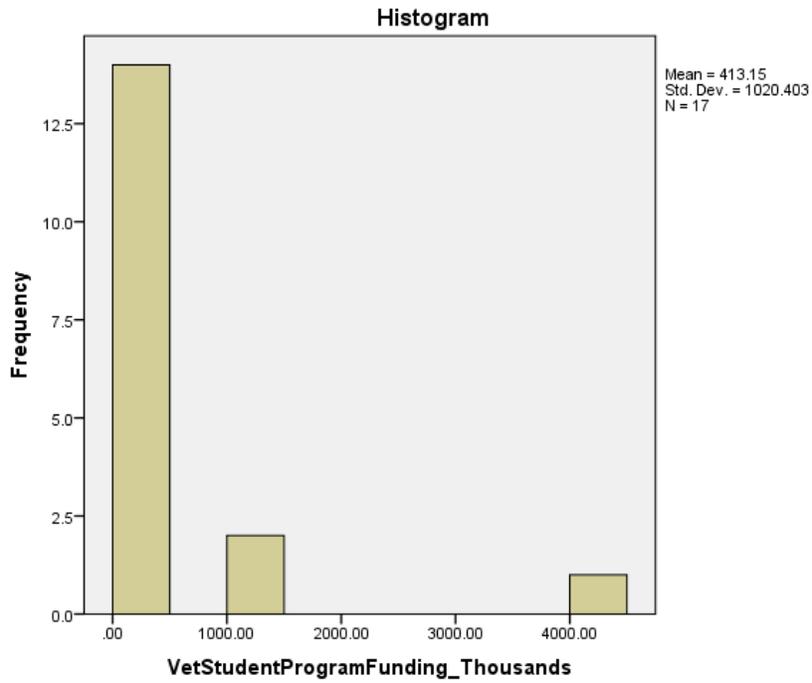
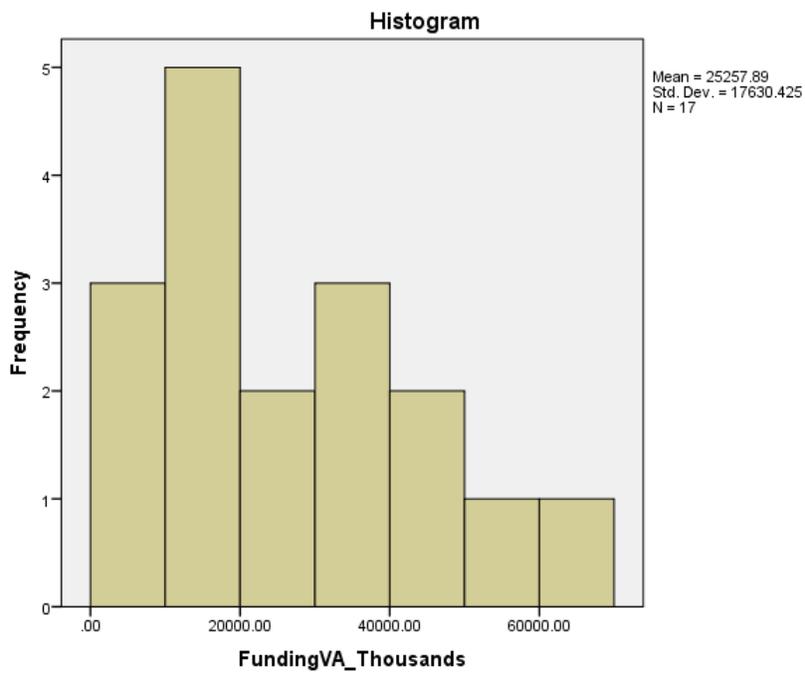*Figure 3*. Histogram of veteran student funding (in thousands of dollars).

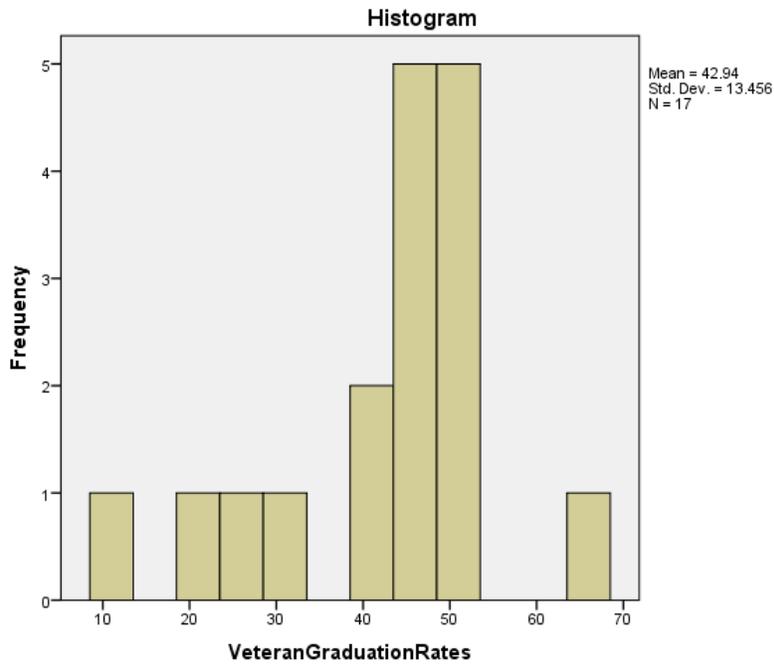*Figure 4*. Histogram of VA funding (in thousands of dollars).

Figure 5. Histogram of veteran graduation rates.
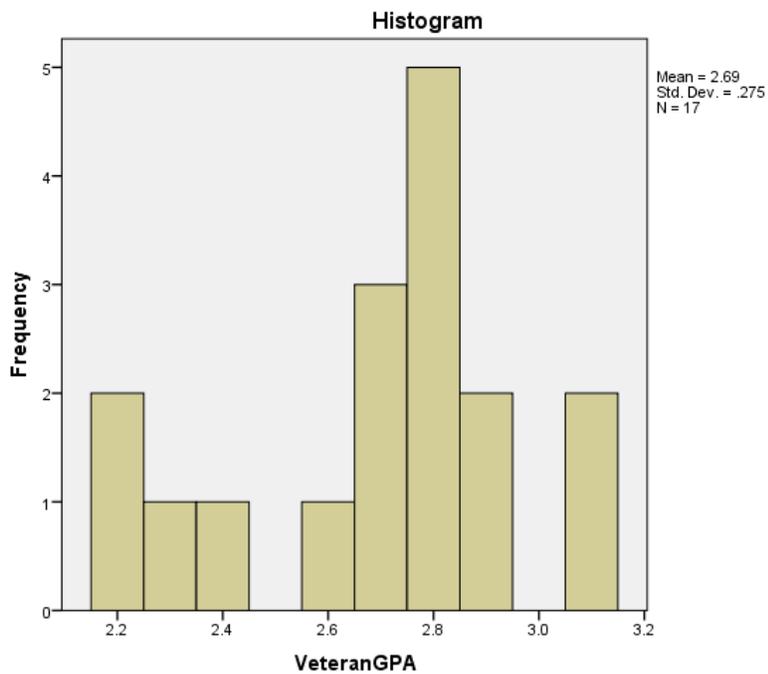
Figure 6. Histogram of veteran GPA.

In addition to visual inspection of histograms, the researcher calculated skewness and kurtosis statistics to evaluate normality. Table 3 provides this information.

Table 3

Skewness and Kurtosis Statistics of Study Variables

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Veteran Graduation Rates	-1.029	.550	1.186	1.063
Veteran GPA	-.585	.550	-.319	1.063
Veteran Student Program Funding (Thousands)	3.270	.550	11.453	1.063
Funding VA(Thousands)	.513	.550	-.834	1.063

Skewness and kurtosis statistics within -3 and +3 denoted acceptable normality. Veteran student program funding exceeded acceptable values for both skewness and kurtosis.

Linearity between the study variables were assessed by visual inspection of scatter plots. Figures 7 through 10 provide this information. There seemed an approximate, positive linear relationship between funding, veteran GPAs, and veteran graduation rates. Significance of these relationships is tested in the following section.
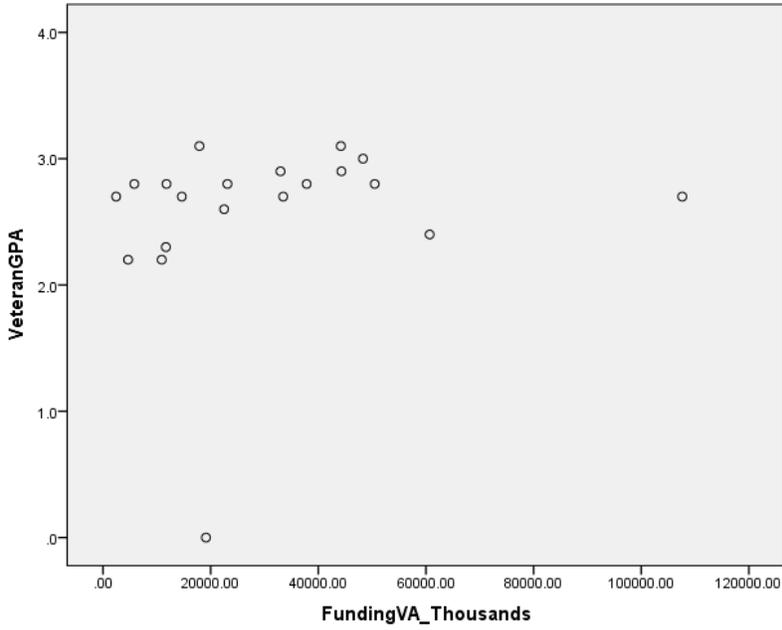
Figure 7. Scatter plot of VA funding and veteran GPA.
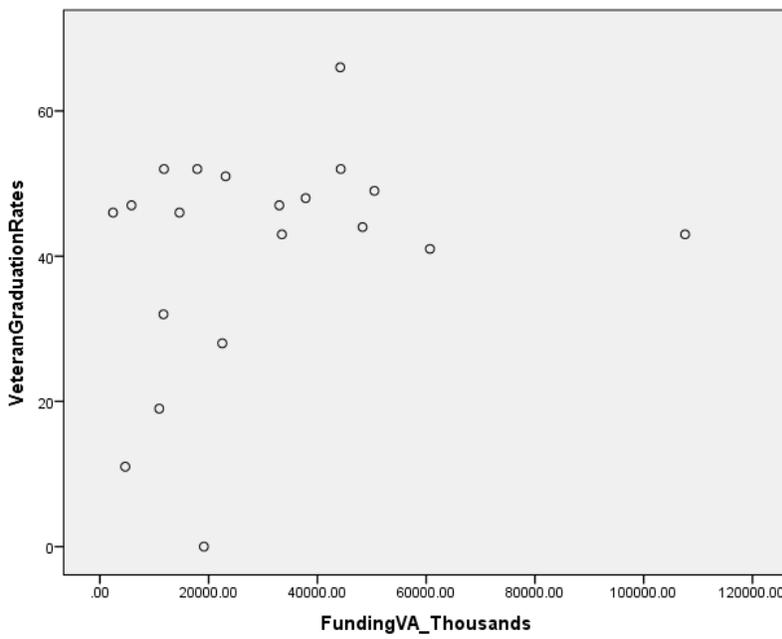
Figure 8. Scatter plot of VA funding and veteran graduation rates.
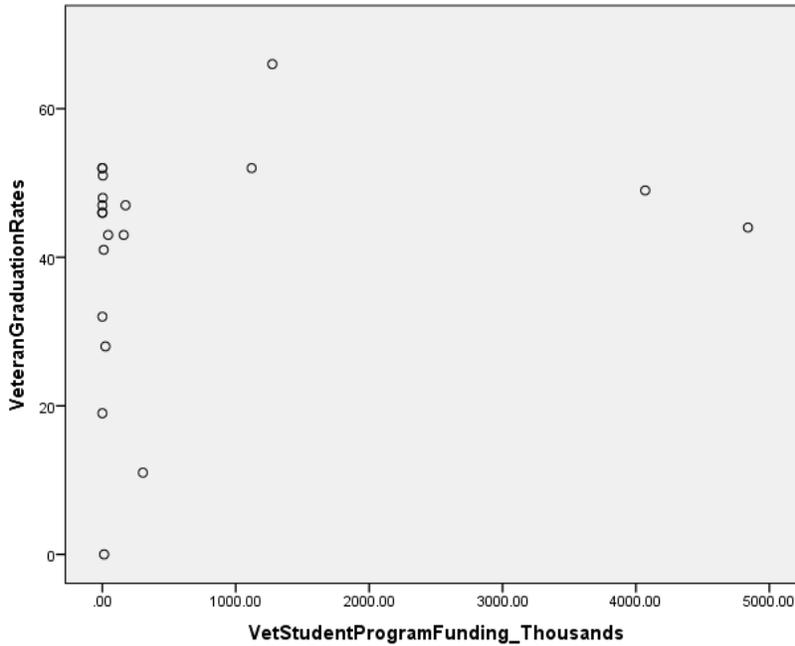
Figure 9. Scatter plot of veteran student program funding and veteran graduation rates.
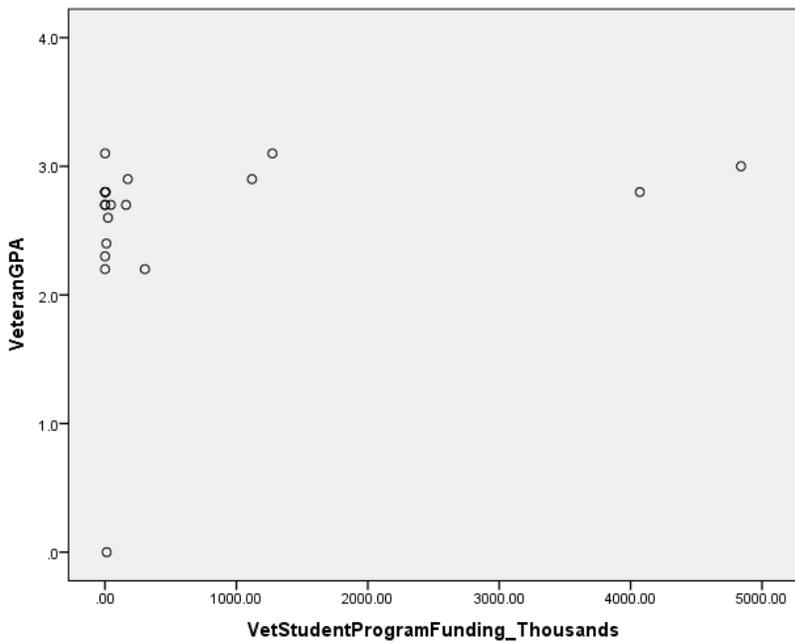
Figure 10. Scatter plot of veteran student program funding and veteran GPA.

Due to the small sample size of the study ($N = 20$), the violation of normality, and the presence of outliers, the non-parametric bootstrap was employed as well as The Spearman's rank-order correlation. Bootstrapping allows the researcher to estimate the sampling distribution of a

statistic without making assumptions about the form of the population. Additionally, The Spearman's rank-order correlation calculates a coefficient, r_s or ρ (pronounced "rho"), which is a measure of the strength and direction of the association/relationship between two continuous or ordinal variables. The Spearman rank correlation test does not carry any assumptions about the distribution of the data.

Research Question 1. Originally intended to be addressed, the first research question that was the following: Based on the data used for the current study, what are the characteristics/profile of veteran students? However, data were historical in nature and did not include the demographic variables originally intended for analysis. Therefore, RQ1 results were not presented in this study; instead, the researcher applied the results to RQ2.

Research Question 2. RQ2 was the following: What is the relationship between VA benefit funding and veteran student programs success rate as measured by graduation rates? The relationship between VA funding and veteran graduation rates was not statistically significant ($r_s = 0.232$, $p = 0.328$). The correlation was deemed a small effect size. The 95% confidence interval for this correlation ranged from -.241 to 0.610. The relationship was not significant; therefore, this null hypothesis was not rejected. Thus, there was no statistically significant relationship between VA benefit funding and veteran student programs success rate, as measured by graduation rates. Table 4 provides this information.

Table 4

Spearman's Correlations for RQ2

				Veteran Graduation Rates	Funding VA Thousands
Spearman's rho	Veteran Graduation Rates	Correlation Coefficient		1.000	.231
		P-value		.	.328
		N		20	20
		Bootstrap[c]	Bias	.000	-.013
			Std. Error	.000	.217
			95% Confidence Interval Lower	1.000	-.241
			Upper	1.000	.610
	FundingVA_Thousands	Correlation Coefficient		.231	1.000
		P-value		.328	.
		N		20	20
		Bootstrap[c]	Bias	-.013	.000
			Std. Error	.217	.000
			95% Confidence Interval Lower	-.241	1.000
			Upper	.610	1.000

c. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

Research Question 3. RQ3 was quantitative and was the following: What is the relationship between school funding for veteran student program funding and academic success for veteran students as measured by GPA? The relationship between school funding for veteran student and academic success for veteran students, as measured by GPA, was not statistically significant. ($r_s = 0.281$, $p = 0.230$). The correlation was deemed a small effect size. The 95% confidence interval for this correlation ranged from -.226 to 0.696. The relationship was not statistically significant; therefore, this null hypothesis was not rejected. Thus, there was no statistically significant relationship between school funding for veteran student program funding

and academic success for veteran students, as measured by GPA. Table 5 below provides this information below.

Table 5

Spearman's Correlations for RQ3

					Veteran Student Program Funding	Veteran GPA
Spearman's rho	Veteran Student Program Funding (Thousands)	Correlation Coefficient			1.000	.281
		P-Value			.	.230
		N			20	20
		Bootstrap[c]	Bias		.000	-.010
			Std. Error		.000	.238
			95% Confidence Interval	Lower	1.000	-.226
				Upper	1.000	.696
	Veteran GPA	Correlation Coefficient			.281	1.000
		P-Value			.230	.
		N			20	20
		Bootstrap[c]	Bias		-.010	.000
			Std. Error		.238	.000
			95% Confidence Interval	Lower	-.226	1.000
				Upper	.696	1.000

c. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

Sensitivity Analysis

Outliers might influence the outcome of a statistical analysis. Consequently, sensitivity analysis was conducted to determine if the removal of the three outliers in the data set would result in different results. This first quantitative research question was retested with the three outliers removed from the data set:

Research Question 2. The relationship between VA funding and veteran graduation rates was not significant at the 5% level ($r_s = 0.413$, $p = 0.099$). The relationship was not statistically significant; therefore, this null hypothesis was not rejected. Thus, there was no statistically

significant relationship between VA benefit funding and veteran student programs success rate, as measured by graduation rates. However, there was a large effect size, and the relationship was statistically significant at the 10% level.

Table 6

Spearman's Correlation for RQ 2 (Outliers Removed)

				Veteran Graduation Rates	VA Funding Thousands
Spearman's rho	Veteran Graduation Rates	Correlation Coefficient		1.000	.413
		Sig. (2-tailed)		.	.099
		N		17	17
		Bias		.000	-.016
		Std. Error		.000	.226
		Bootstrap[c] 95% Confidence Interval	Lower	1.000	-.109
			Upper	1.000	.774
	VA Funding Thousands	Correlation Coefficient		.413	1.000
		Sig. (2-tailed)		.099	.
		N		17	17
		Bias		-.016	.000
		Std. Error		.226	.000
		Bootstrap[c] 95% Confidence Interval	Lower	-.109	1.000
			Upper	.774	1.000

c. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

Research Question 3. This second quantitative research question was retested with three outliers removed from the data set. The relationship between school funding for veteran student and academic success for veteran students, as measured by GPA, was not statistically significant. ($r_s = 0.245$, $p = 0.343$). The correlation was deemed a small effect size. The 95% confidence interval for this correlation ranged from -.298 to 0.703. The relationship was statistically not significant; therefore, this null hypothesis was not rejected. Thus, there was no statistically significant relationship between school funding for veteran student and academic success for veteran students, as measured by GPA. Table 7 provides this information.

Table 7

Spearman's Correlations for RQ3 (Outliers Removed)

				Veteran Student Program Funding Thousands	Veteran GPA
Spearman's rho	Veteran Student Program Funding Thousands	Correlation Coefficient		1.000	.245
		Sig. (2-tailed)		.	.343
		N		17	17
		Bootstrap[c]	Bias	.000	-.007
			Std. Error	.000	.259
			95% Confidence Interval Lower	1.000	-.298
			Upper	1.000	.703
	VeteranGPA	Correlation Coefficient		.245	1.000
		Sig. (2-tailed)		.343	.
		N		17	17
		Bootstrap[c]	Bias	-.007	.000
			Std. Error	.259	.000
			95% Confidence Interval Lower	-.298	1.000
			Upper	.703	1.000

c. Unless otherwise noted, bootstrap results are based on 10000 bootstrap samples

Summary

The researcher conducted this quantitative, correlational study to investigate the relationships between veteran student school funding, VA funding, veteran graduation rates, and veteran GPA. Due to small sample sizes ($N = 20$), the presence of outliers in the data set, and violations of the normality requirement, the researcher performed the non-parametric bootstrap and Spearman's correlations. Utilizing a bootstrap of 10,000 samples, Spearman's correlations

were performed to analyze the relationships between the study variables. The relationship between VA benefit funding and graduation rates as well as the relationship between veteran student and academic program funding and veteran GPA were not found statistically significant.

Sensitivity analysis was performed to determine if the presence of outliers influenced the study. Three data values were removed that had standardized scores greater than 3, and the analysis was repeated. The relationship VA benefit funding and graduation rate, although not significant at the 5% level, was significant at the 10% level. This finding warrants further investigation into these relationships, with a much larger sample.

Chapter 5 follows and presents the conclusions of this study and recommendations for future research. The results of this study are compared with the results of other similar studies mentioned in the literature review of Chapter 2. The limitations of this current study are also addressed.

Chapter 5: Discussion

Introduction and Summary of the Findings

As the number of student veterans or students currently serving in the military increases in postsecondary institutions, so does the number of institutions enrolling them and claiming to be military-friendly (T. C. Bonar, 2016; Elliott, 2015). This recent surge in student veterans transpired in the wake of the Post 9/11 G.I. Bill enacted in 2009, which increased the benefits of student veterans and allowed for more universal access to postsecondary education (Elliott, 2015; Sutton, 2016). Leaders created the Post 9/11 G.I. Bill to provide an increase in the veteran education funding from 4.6 billion USD in 2008 to 11.7 billion USD in 2013 (Radford et al., 2016). Even with the bill in place, many student veterans have expressed their dissatisfaction with their institutions' services (T. C. Bonar, 2016). Leaders of different colleges and universities have provided dissimilar services (O'Toole et al., 2016), with only a few providing mental health services (T. C. Bonar, 2016; Granger, 2016; Norman et al., 2015). Reeves et al. (2016) interviewed participants who identified the lack of such services as an important issue when they had experienced the traumatic nature of military life (Reeves et al., 2016).

The issue of dissatisfaction has led researchers to explore the many factors influencing the experiences of student veterans in higher education (Borsari et al., 2017; Jenner, 2017), many of which were discussed in Chapter 2. Most literature exploring the experiences of student veterans was qualitative in nature (Haynes, 2016; Jenner, 2017), which led Hammond (2016) to request more quantitative studies related to student veterans to build on and support the qualitative ones. The purpose for conducting this quantitative, historical, non-experimental correlational study was to determine whether targeted programs for veteran students were helpful to show how best to allocate resources for their education.

The researcher investigated whether there were relationships between the independent variables, school funding for veteran student programs, and Veterans Affairs (VA) benefit funding and the dependent variables of academic success, as measured by GPA and graduation rates. As stated in earlier chapters, Pearlin's (1989) stress processing theory was used as the theoretical framework for this study; Pearlin described social structures, such as the military and postsecondary institutions, while also considering the transition from one structure to another. Pearlin showed that these influenced transitioning students' stress levels, relaying a complex web of primary and secondary stressors. Financial issues were one of the stressful challenges that student veterans encountered, which raises concern as the Post 9/11 G.I. Bill was supposed to cover most of the expenses in higher education (e.g., Jenner, 2017; Kees et al., 2017; Norman et al., 2015; Tinoco, 2014). When considering Pearlin's (1989) stress processing theory, aids such as those provided by the bill are ways to alleviate stress, not aggravate stress. Based on this study, the researcher questioned whether the funds were being ineffectively spent. Therefore, and in accordance with the stress processing theory (Pearlin, 1989), the following research questions were raised:

RQ1: Based on the data used for the current study, what are the characteristics/profile of veteran students?

RQ2: What is the relationship between VA benefit funding and veteran student programs success rate as measured by graduation rates?

RQ3: What is the relationship between school funding for veteran student program funding and academic success for veteran students as measured by GPA?

The first research question was designed to gather demographic information of the participants. However, due to the historical nature of the study, the data gathered were pre-

existing; therefore, no additional information could be obtained. These data only included veteran graduation rates, veteran grade point averages (GPAs), veteran student program funding, and VA funding for the participating institutions. Therefore, the results of RQ1 were not presented in this study. Nonetheless, this issue did not hinder the study from fulfilling its purpose through RQ2 and RQ3.

The findings for both RQ2 and RQ3 showed no significant relationships between VA funding and veteran graduation rates, and between school funding for veteran students and academic success. However, after removing outliers from the data set, and adjusting the significance level to 10% as the sample decreased (e.g., Labovitz, 1968), the findings showed a significant relationship between VA funding and veteran graduation rates. These findings are discussed in detail in the following sections, along with existing research, limitations of the study, recommendations for future research, and the implications of the findings.

Interpretation of the Findings

The results for RQ2 and RQ3 are discussed in the following subsections. The theoretical framework of stress processing theory (Pearlin, 1989) is used as a lens throughout the following discussions. Existing literature related to the findings are also discussed.

Relationship between VA funding and veteran graduation rates. The first finding of the study showed no relationship between VA funding and veteran graduation rates. Based on this finding, one might infer that the amount of funding from the VA did not really matter when it came to veteran students' persistence leading to graduation. Previous authors noted that, despite the increase and updates of VA benefit programs, there was a lack of consensus on the efficacy of these programs (Borsari et al., 2017; Callahan & Jarrat, 2014). This present study's finding then contributed to the sparse literature, showing how the funds provided by VA

programs might not be correctly used, as observed by its relationship with veteran graduation rates. When considering the theoretical framework of Pearlin's (1989) stress processing theory, the researcher was not surprised that VA funding, a single aspect of the social structure of veteran education, had little influence over graduation rates, as the structure was comprised of many parts. This finding was in line with Alschuler and Yarab's finding (2016) that most of the attrition in their collected archival sample could not have been solely attributed to financial difficulties.

The veteran students who dropped out of one Midwestern public university were all funded by one, or even more, of several military-related benefits, such as the revised Post 9/11 G.I. Bill and the Montgomery G.I. Bill, among others (Alschuler & Yarab, 2016). National statistics reflected this finding as well, as only about 30% to 40% of student veterans using benefits actually graduated and obtained a degree (Cate, 2013). After interviewing several student veterans and students serving in the military, Alschuler and Yarab (2016) found that other factors, aside from financial ones, had more weight over students persisting and graduating from college or university. These included mobilization or deployment, problems associated with multiple roles and identities, medical or psychiatric symptoms, sense of belonging or involvement in campus, and attitudes about civilian peers and faculty (Alschuler & Yarab, 2016). With those other factors in play, the impact of VA funding on veteran graduation rates may not be as great.

In examining student veteran's strengths, Granger (2016) found that success in graduating and obtaining a degree derived mostly from students' adaptability, self-efficacy, and belief in better lives after graduation, factors highly unrelated to VA funding. To persist and succeed in college, student veterans must constantly assess themselves and their broad but

clearly-defined goals (Granger, 2016). Researchers recognized the transition from military life to college life as a difficult phase (Alschuler & Yarab, 2016; Gregg et al., 2016; Heineman, 2016; Kees et al., 2017), but students' military trainings allowed them to remain positive and adapt to this transition (Granger, 2016).

Contrary to theories involving traditional students, where student attributes, commitments, efforts, and experiences were necessary for persistence, Granger's (2016) theory of persistence required adaptability and self-efficacy from student veterans. In line with Pearlin's (1989) stress processing theory that explains how stress involves a complex web of primary and secondary stressors, the impact of financial issues may just be one part of a complex web. These issues were aforementioned factors mentioned by Alschuler and Yarab (2016) and Granger (2016); hence, these might not influence veteran graduation rates too much alone.

Relationship between VA funding and veteran graduation rates at 10% significance level. When accounting for outliers though, I found that the relationship between VA funding and veteran graduation rates was significant at 10% level, displaying that benefit funding might have a slight influence on student veteran persistence and graduation. Borsari et al. (2017) noted that the Post 9/11 G.I. Bill only funded up to four years in higher education, which might not be enough time for some student veterans to graduate. Considering how student veterans were usually older than traditional students, they might have more external obligations as well, such as taking care of their families (Ahern et al., 2015). This issue might divide their time and attention, causing them to take fewer courses; in turn, they take longer to graduate, losing their funding once they exceed the 4-year mark (Borsari et al., 2017). At times, this time issue might lead them to acquire a considerable amount of debt by the time they leave school (Tinoco, 2014). For example, Elliott (2015) purported that veterans struggle with financial issues and unemployment

significantly more than nonveterans. This example showed how financial factors could influence veteran graduation rates, as the adjusted result of this present study showed.

Jenner's (2017) literature review indicated financial issues as having the most significant influence on all students' persistence, including veterans and nonveterans. Student veterans have additional burdens that might also be related to financial issues (Jenner, 2017). Many student veterans struggled with mental health issues, such as PTSD, depression, or self-injurious behaviors (Fortney et al., 2016; Reeves et al., 2016), and not all colleges and universities offered free mental health services, which might lead student veterans to spend their own money and seek outside help (T. C. Bonar, 2016; Granger, 2016). The accumulation of financial and psychological issues might increase the risk of student veterans dropping out of school (Jenner, 2017).

Jenner (2017) noted how the Post 9/11 G.I. Bill only provided housing allowance for colleges and universities within the state of residency, which greatly limited student veterans' choices of schools. This may be an issue especially for students still serving in the military, as they may choose to study near their military base as opposed to their state of residence, thereby cancelling out their housing benefit (Jenner, 2017). These issues showed how VA funding or lack thereof for mental health services and housing might indirectly influence veteran graduation rates as they struggled with persistence while facing multiple obstacles.

Other financial factors might be more directly influential in veteran graduation rates. For instance, Norman et al. (2015) discovered that disbursements from the VA funding were sometimes late, which not only caused stress for student veterans but also caused them to withdraw from courses automatically. Participants of Norman et al.'s (2015) study relayed confusion over the Post 9/11 Bill, stating that the complexities of the Bill itself and its payment

policies were unclear, and they were unaware of these complexities until they were already enrolled and utilizing the bill's benefit funding. Likewise, Semer and Harmening (2015) stated that the complexities of the Post 9/11 G.I. Bill often left student veterans confused about how to best utilize their benefits. In line with this finding, Heineman (2016) noted the lack of assistance and orientation specifically for student veterans regarding their funding and enrollment, causing the veterans to go back and forth between offices just to gather information. With the problems of stress and confusion regarding the VA funding, in conjunction with the late disbursements, it came as no surprise that VA funding might an influence veteran graduation rates, even if 10% of this result might be attributed to chance in accordance with its significance level.

Relationship between school funding for veteran students and academic success for veteran students as measured by GPA. The second finding of this study showed that the relationship between school funding for veteran students and their GPA was not significant, even when outliers were removed. The implication of this finding was that the academic performances of student veterans were not influenced by the amount of funding spent on student veteran programs in school. Once again, the theoretical framework, stress processing theory, might explain this finding, as school funding was one aspect of the complex social structure of veteran education, and other aspects existed within that structure (Pearlin, 1989).

Researchers have suggested that these programs were effective for student veterans (Ahern et al., 2015; Allen et al., 2014); however, these may be helpful in ways other than academically (Granger, 2016; Kees et al., 2017). Some examples include the PAVE program, which Kees et al. (2017) found helpers assisted student veterans socially and emotionally; the Veterans Health Administration's (VHA) "Homeless Patient Aligned Care Team," which provided hygiene, transportation, food, and clothing needs for homeless student veterans

(O'Toole et al., 2016); and mental health counseling services (T. C. Bonar, 2016; Granger, 2016).

While some school-funded programs included tutoring and mentoring (Ahern et al., 2015; Jovanovic et al., 2016), and others included academic support programs (Granger, 2016), the efficacy of these programs remained unproven. T. C. Bonar (2016) noted how the success rates of these programs were sporadic. Moreover, other factors might have influenced student veterans' academic performances or mediated the relationship between school funding and academic success. Dasarathy (2015) and Norman et al. (2015) stated that mental and physical health, which leaders might address by school-funded programs and services, could negatively affect academic performance. Semer and Harmening (2015) also found other factors influenced student veterans' GPA, such as race, credit hours, discussion of career goals, feedback from professors, college event participation, exercise, and commute time to school. Tinoco (2014) emphasized student veterans lacked academic preparation since their time in the military, which might then reflect their academic performance in higher education. However, the mediating roles of these factors were beyond the scope of this current study.

Based solely on the present study's results, school funding had no influence on academic performance. This finding was similar to Bailey, Drury, and Randall's (2017) findings that showed similar GPA and standardized test scores for student groups before and after the Post 9/11 G.I. Bill. Their finding indicated that the increase in school funding did not increase or decrease student veterans' academic performance. Semer and Harmening's (2015) participants also did not state any financial variables as factors influencing their GPAs. However, Bailey et al. (2017) noted that a comprehensive support system for student veterans, assisting them in aspects including but not limited to academic issues, would prove advantageous in promoting

academic success. Vaccaro (2015) shared similar insights, highlighting the diversity of the group of student veterans and that no single program might effectively meet every single student veteran's needs completely. These findings showed the complexity of student veterans' needs and that raising school funding might not be enough to influence their academic performances, as evinced in the present study's results.

Other studies have shown opposing results, revealing certain school-funded programs or services that influenced student veterans' academic performance. One such program was the PLA, where helpers allowed student veterans to move and advance in their studies at their own pace (Allen et al., 2014). Allen et al. (2014) defined this program as assisting students to identify gaps in knowledge, as well as areas of proficiency, thereby allowing for a more tailor-fit curriculum and academic success. R. Campbell and Riggs (2015) purported that leaders of colleges and universities should mandate mental health screening and health care for student veterans, as psychological symptoms could hinder their academic adjustment. This finding was similar to E. E. Bonar et al.'s (2015) finding that student veterans were not always willing to seek mental health treatment, even when they knew that they needed help. School-funded faculty and staff training and education on military culture and psychological awareness were found to assist in this matter by identifying student veterans with health care needs, and therefore decreasing the chances that these students would fail in school due to psychological symptoms (Ahern et al., 2015; R. Campbell & Riggs, 2015).

Researchers purported that helpers of these school-funded programs assisted student veterans academically and often used mediating factors, such as mental health care. As stated in Pearlin's (1989) stress processing theory, these mediating factors made up a complex web of stressors that could affect student veterans' academic performance, which was also beyond the

scope of this present study. I found that the amount of school funding for student veterans alone was not directly related to their academic performances, as measured by their GPAs.

In sum, both VA funding and school funding in isolation were not found to influence student veteran graduation and academic success at the 5% significance level. Other factors might account for the dependent variables or possibly mediate these relationships, such as problems with multiple roles and identities (Alschuler & Yarab, 2016), medical or psychological problems (Alschuler & Yarab, 2016; Dasarathy, 2015; Norman et al., 2015; Reeves et al., 2016), adaptability (Granger, 2016), and physical needs (O'Toole et al., 2016). However, after adjusting for outliers, the results showed that there was a 90% chance that VA funding might influence veteran graduation rates. This finding was not surprising, considering how several researchers found financial issues were a problem for student veterans (Borsari et al., 2017; Elliott, 2015; Jenner, 2017; Tinoco, 2014).

Overall, the findings indicated that funding might not be the only variable that influenced both veteran graduation and academic performances. However, other variables might be involved, which might mediate the relationship between the present study's independent and dependent variables. This finding indicated that current VA and school funding might not be allocated properly in most institutions, which might account for the non-significance of the relationships between funding and veteran graduation rates and academic performances.

Limitations of the Study

The sample of this present study was limited to 20 institutions that provided information on American veteran students. Therefore, the findings of this study could not be generalized to wider or other populations, such as other races, types of institutions, and locations. The historical and secondary nature of the data gathered limited the present study's findings to the time when

the student veterans were enrolled, hence decreasing its time validity. In other words, the findings, even though these came from the most recent data, might not be applicable to student veterans in a different time setting. The non-experimental, quantitative nature of the study might provide information on correlations or the lack of it but not on causality. One of the present study's key findings, the significant relationship of VA funding on veteran graduation rates at 10% significance level, also raised caution, as this aspect was adjusted to account for the smaller sample size defined by Labovitz (1968). This limitation meant there was a 10% probability that this significant relationship was simply due to chance.

The pre-existing data gathered were provided by the participating institutions, and no other instruments were used; therefore, the data involved might be limited. Considering the complexity of the matter described by Pearlin (1989), information on the amount of funding might not be sufficient in accounting for veteran graduation rates and academic performances. The mediating roles of problems with multiple roles and identities (Alschuler & Yarab, 2016), medical or psychological problems (Alschuler & Yarab, 2016; Dasarathy, 2015; Norman et al., 2015; Reeves et al., 2016), adaptability (Granger, 2016), and physical needs (O'Toole et al., 2016) were not examined. The participating institutions did not provide data on how the VA or school funds were being allocated and the student veteran programs that they used. Hence, the findings of this present study still had value, as these showed how the increase of such funding might not develop the desired effects, thereby providing insight for future researchers.

Recommendations

The findings of this study indicated that VA funding and school funding did not share a significant relationship with veteran graduation rates and academic performances at the 5% significance level; therefore, these funds might not be utilized properly by most institution

leaders. This finding warrants future research on how these funds are being used and the types of

student veteran programs that are effective in increasing veteran graduation rates and academic

performances. Future researchers can examine the efficacy of the most popular programs, such

as the PAVE and PLA, and compare these with each other to identify which program deserved

more attention and allocation of funds.

As researchers conducted several qualitative studies already on this subject (Hammond,

2016; Haynes, 2016; Jenner, 2017; Norman et al., 2015), more quantitative measures, such as the

one used in the present study, would provide empirical evidence on the efficacy of the programs

stated above, especially if more data could be gathered. Although costly, a longitudinal

investigation will be most useful in cases where the experimental design and manipulation of

variables are not possible. Future researchers can examine academic records and pre and

posttests before and after the implementation of specific student veteran programs. Qualitative

researchers may also investigate issues that have not yet been tackled by previous studies, such

as interviews with program and policy makers and with veteran mental health experts, to provide

a triangulation of data on what student veterans may need in these programs. Case studies on

veterans who have graduated and succeeded after higher education can also be completed to

determine what challenges they have faced, what has drove them to persist and succeed, and

what they have perceived as the best way to allocate funds for student veterans.

As mentioned in the sections above, several factors might mediate the relationship

between VA and school funding, and veteran graduation and academic performance.

Quantitative studies on the mediating effects of student veterans' multiple roles and identities

(Alschuler & Yarab, 2016), medical or psychological problems (Alschuler & Yarab, 2016;

Dasarathy, 2015; Norman et al., 2015; Reeves et al., 2016), adaptability (Granger, 2016), and

physical needs (O'Toole et al., 2016), on the relationships between VA funding and graduation rates, and between school funding and academic performance are recommended. Future researchers can utilize tools other than historical records to measure these variables better. Possible results of these studies can show how proper allocation of funds can influence the success of student veterans in higher education.

The present study's finding that VA funding significantly correlated with veteran graduation rates at 10% significance level also warranted more research on the matter. This finding indicated that VA funding might influence veteran student graduation. A larger sample size can be examined to obtain results in a higher confidence level and increase both validity and reliability. Academic success of funded veterans can be compared with nonfunded veterans to include a larger scope. As the implementation of the Post 9/11 G.I. Bill is still recent and certain changes are still being made regarding the Bill (Norman et al., 2015; Semer & Harmening, 2015), the field of study on student veterans is growing, thereby requiring more investigations on the issue (Spencer, 2016).

Implications

This historical, quantitative, correlational study provided insights on VA funding and school funding's influence, or lack thereof, on student veterans' graduation rates and academic performance. The following section includes discussion of the implications of these insights on practice, theory, and social change. For student veterans, students serving in the military, and veterans seeking higher education, the results imply that large VA and school funding may not necessarily mean a higher chance of success and graduation for them. Veterans may be swayed by institutions providing higher funding or more extravagant programs, but these programs may not be effective or suitable for them. As Vaccaro (2015) similarly noted, student veterans

comprise a large and diverse group, having diverse needs, and what may work for some, may not work for others. The findings then show that veterans need to examine thoroughly the funding, programs, and services provided by institutions before enrolling.

For school policy makers, the results show that the quality of programs and services offered may be more important than the amount of money spent. Therefore, they need to be aware of the various needs of student veterans to cater to them better. They also need to be more proactive (Alschuler & Yarab, 2016) and provide more information to potential student veterans regarding the programs and services leaders offer, before and after students enroll. This process can occur in the form of a separate orientation specifically for student veterans, as Heineman (2016) proposed; peer mentoring with more experienced student veterans, as Ahern et al. (2015) and Kees et al. (2017) proposed; or veteran centers and spaces, as Ahern et al. (2015) and Heineman (2016) proposed. However, E. E. Bonar et al. (2015) noted that student veterans might not actively seek assistance or utilize services when needed; therefore, school faculty and staff needed to be vigilant and properly trained on how to identify student veterans with potential needs (Ahern et al., 2015; R. Campbell & Riggs, 2015; Spencer, 2016). Administrative staff should also be aware and constantly updated of the VA benefit funding programs to inform student veterans of the most appropriate benefit funds for them (Semer & Harmening, 2015).

The present study's findings may have the most impact on government policy makers because the large budget that they have allocated for student veterans may not be utilized to its full potential, as shown in the lack of a significant relationship between funding and veteran student success. Therefore, policy makers need to be more aware of certain programs, services, and policies that are most effective for student veterans, and they should implement these in postsecondary institutions to ensure that the funds are being used properly. They should also

provide more distributed and detailed information about the different benefit funds to avoid confusion. The G.I. Bill Comparison Tool (U.S. Department of Veteran Affairs, 2015) and the VA Campus Toolkit (2013) are good initiatives, but not all veterans may be aware of or have access to these sites. Helpers must be available to help student veteran at the beginning of a veteran's discharge; then, helpers can be certain that veterans are aware of their options after military life.

Regarding the methodological implications of this study, the quantitative nature provided empirical evidence that funding might not be as influential on veteran student success as initially purported. The numerical results presented show that much research is needed to identify how best to allocate funds and resources for veteran education. Therefore, based on these findings, along with Pearlin's (1989) stress processing theory, I request that both researchers and practitioners of the field look beyond the amount of funding provided for student veterans in accounting for their success in higher education.

Conclusion

The increase in funding for student veterans brought about by the Post 9/11 G.I. Bill called for inquiry on whether these funds were effective in assisting student veterans' academic success (Radford et al., 2016; Sutton, 2016). The present study's findings, along with existing literature, showed that the amount of funding did not directly influence veteran graduation rates and academic performance in general (Alschuler & Yarab, 2016; T. C. Bonar, 2016; Jenner, 2017). When accounting for outliers though, I found a slight chance that VA funding might influence veteran graduation rates. This finding, although unsurprising due to the prominence of financial issues in previous literature (e.g., Elliott, 2015; Jenner, 2017; Tinoco, 2014), might not be the sole factor determining veteran graduation (e.g., Alschuler & Yarab, 2016). Other possible

factors beyond the scope of this study were presented in the previous sections, and these also warranted further research. As Pearlin (1989) noted in his stress processing theory, which I used as this present study's theoretical framework, stress hindered student veterans' academic success and was a complex and sociological issue that involved more than one factor. Therefore, the efficacy of student veteran programs was due to more than just larger funding.

References

Ackerman, R., DiRamio, D., & Mitchell, R. L. G. (2009). Transitions: Combat veterans as college students. *New Directions for Student Services, 2009*, 5-14. doi:10.1002/ss.311

Ahern, A., Foster, M., & Head, D. (2015). Salt Lake community college veterans services: A model of serving veterans in higher education. *New Directions for Community Colleges, 2015*(172), 77-86. doi:10.1002/cc.20165

Alfred, G. C., Hammer, J. H., & Good, G. E. (2014). Male student veterans: Hardiness, psychological well-being, and masculine norms. *Psychology of Men & Masculinity, 15,* 95. doi:10.1037/a0031450

Allen, P. E., Armstrong, M. L., Saladiner, J. E., Hamilton, M. J., & Conard, P. L. (2014). Opportunities, hurdles, solutions, and approaches to transition military veterans into professional nursing programs. *Journal of Professional Nursing, 30*, 474-480. doi:10.1016/j.profnurs.2014.03.007

Alschuler, M., & Yarab, J. (2016). Preventing student veteran attrition: What more can we do? *Journal of College Student Retention: Research, Theory & Practice, 20*(1), 47-66. doi:10.1177/1521025116646382

American Council on Education. (2015). *Serving the military and veteran community. Ace: Leadership and advocacy*. Retrieved from http://www.acenet.edu/higher-education/topics/Pages/College-Credit-for-Military-Service.aspx

Badger, K., & McCuddy, M. D. (2014). Understanding the student veterans' college experience: An exploratory study. *US Army Medical Department Journal, 2014*, 101-108. Retrieved from https://www.cs.amedd.army.mil/amedd_journal.aspx

Bailey, A. K., Drury, M. B., & Randall, H. (2017). Student veterans' academic performance before and after the post–9/11 GI bill. *Armed Forces & Society*. doi:10.1177/0095327x17737283

Barry, A. E., Whiteman, S. D., & Wadsworth, S. M. (2014). Student service members/veterans in higher education: A systematic review. *Journal of Student Affairs Research and Practice, 51*(1), 30-42. doi:10.1515/jsarp-2014-0003

Blosnich, J. R., Kopacz, M. S., McCarten, J., & Bossarte, R. M. (2015). Mental health and self-directed violence among student service members/veterans in postsecondary education. *Journal of American College Health, 63,* 418-426. doi:10.1080/07448481.2014.931282

Bonar, E. E., Bohnert, K. M., Walters, H. M., Ganoczy, D., & Valenstein, M. (2014). Student and nonstudent national guard service members/veterans and their use of services for mental health symptoms. *Journal of American College Health,63*(7), 437-446. doi:10.1080/07448481.2014.975718

Bonar, T. C. (2016). Mental health and military-connected students on campus: Culture, challenges, and success. *Student Services, 2016*(156), 41-51. doi:10.1002/ss.20190

Borsari, B., Yurasek, A., Miller, M. B., Murphy, J. G., McDevitt-Murphy, M. E., Martens, M. P., . . . Carey, K. B. (2017). Student service members/veterans on campus: Challenges for reintegration. *American Journal of Orthopsychiatry, 87*, 166-175. doi:10.1037/ort0000199

Bound, J., & Turner, S. (2002). Going to war and going to college: Did World War II and the GI Bill increase educational attainment for returning veterans? *Journal of Labor Economics, 20,* 784-815. doi:10.1086/342012

Bryan, C., & Bryan, A. (2014). Non-suicidal self-injury among a sample of United States military personnel and veterans enrolled in college classes. *Journal of Clinical Psychology, 70,* 874-885. doi:10.1002/jclp.22075

Burkhart, L., & Hogan, N. (2015). Being a female veteran: A grounded theory of coping with transitions. *Social Work in Mental Health, 13*, 108-127. doi:10.1080/15332985.2013.870102

Callahan, R., & Jarrat, D. (2014). Helping student service members and veterans succeed. *Change: The Magazine of Higher Learning, 46*, 36-41. doi:10.1080/00091383.2014.897189

Campbell, E. J. (2016). *Veteran student success: An evaluation of veteran students' perceptions of a cohort learning model* (Doctoral dissertation, Oregon State University). Retrieved from https://ir.library.oregonstate.edu/concern/graduate_thesis_or_dissertations/n009w6581

Campbell, R., & Riggs, S. A. (2015). The role of psychological symptomatology and social support in the academic adjustment of previously deployed student veterans. *Journal of American College Health, 63,* 473-481. doi:10.1080/07448481.2015.1040408

Cate, C. A. (2013). *Exploring student veterans' post-secondary completion rates with two national surveys* (Research brief). Washington, DC: Student Veterans of America.

Choy, L. T. (2014). The strengths and weaknesses of research methodology: Comparison and complimentary between qualitative and quantitative approaches. *IOSR Journal of Humanities and Social Science*, *19*(4), 99-104. Retrieved from http://www.iosrjournals.org/

Church, T. E. (2009). Returning veterans on campus with war related injuries and the long road back home. *Journal of Postsecondary Education and Disability*, *22*(1), 43-52. Retrieved from http://www.ahead.org/publications/jped

Cole, J. S., & Kim, Y. M. (2013). *Student veterans/service members' engagement in college and university life and education.* Washington, DC: American Council on Education.

Coll, J. E., & Weiss, E. L. (2016). Supporting veterans in higher education: A primer for administrators, faculty, and advisors. *Best Practices in Mental Health, 12*, 111-112. Retrieved from https://www.questia.com/library/p439753/best-practices-in-mental-health

Coy, M. J. (2019). Research methodologies: Increasing understanding of the world. *International Journal of Scientific and Research Publications, 9*, 71-77. doi:10.29322/IJSRP.9.01.2019.p8511

Currier, J. M., McDermott, R. C., & Sims, B. M. (2016). Patterns of help-seeking in a national sample of student veterans: A matched control group investigation. *General Hospital Psychiatry, 43*, 58-62. doi:10.1016/j.genhosppsych.2016.08.004

Dasarathy, N. (2015). Back to school: How academic departments at universities can best assist student veterans' transitions into degree programs post-service. *Southern California Review of Law and Social Justice, 25*, 263. Retrieved from https://gould.usc.edu/students/journals/rlsj/

DiRamio, D., Jarvis, K., Iverson, S., Seher, C., & Anderson, R. (2015). Out from the shadows: Female student veterans and help-seeking. *College Student Journal, 49*, 49-68. Available at https://www.projectinnovation.com/college-student-journal.html

Elliott, M. (2015). Predicting problems on campus: An analysis of college student veterans. *Analyses of Social Issues and Public Policy, 15*(1), 105-126. doi:10.1111/asap.12066

Evans, J. J., Pellegrino, L., & Hoggan, C. (2015). Supporting veterans at the community college: A review of the literature. *The Community College Enterprise, 21*, 47-66. Retrieved from https://www.schoolcraft.edu/cce

Falkey, M. E. (2014). *An exploratory study of the transition experiences of Post-9/11 GI Bill era student/veterans from active duty military service to college student* (Doctoral dissertation, George Mason University). Retrieved from http://ebot.gmu.edu/handle/1920/8858

Field, A. P. (2013). *Discovering statistics using SPSS*. Thousand Oaks, CA: Sage.

Fisher, R. A. (1950). *Contributions to mathematical statistics*. Oxford, England: Wiley.

Fortney, J. C., Curran, G. M., Hunt, J. B., Cheney, A. M., Lu, L., Valenstein, M., & Eisenberg, D. (2016). Prevalence of probable mental disorders and help-seeking behaviors among veteran and nonveteran community college students. *General Hospital Psychiatry, 38*, 99-104. doi:10.1016/j.genhosppsych.2015.09.007

Goldberg, M., Cooper, R., Milleville, M., Barry, A., & Schein, M. L. (2015). Ensuring success for veterans with disabilities in STEM degree programs: Recommendations from a workshop and case study of an evidence-based transition program. *Journal of STEM Education: Innovations and Research, 16*, 16-24. Retrieved from http://www.jstem.org

Granger, P. W. (2016). *Student veteran success: A grounded theory study* (Doctoral dissertation). Retrieved from https://fisherpub.sjfc.edu/education_etd/271/

Gregg, B. T., Howell, D. M., & Shordike, A. (2016). Experiences of veterans transitioning to postsecondary education. *American Journal of Occupational Therapy, 70*, 1-8. doi:7006250010p1-7006250010

Griffin, K. A., & Gilbert, C. K. (2015). Better transitions for troops: An application of Schlossberg's transition framework to analyses of barriers and institutional support structures for student veterans. *The Journal of Higher Education, 86*(1), 71-97. doi:10.1353/jhe.2014.0004

Grossbard, J. R., Widome, R., Lust, K., Simpson, T. L., Lostutter, T. W., & Saxon, A. (2014). High-risk drinking and academic performance among college student veterans. *Journal of Alcohol and Drug Education, 58*, 28-47. Retrieved from https://www.jadejournal.com/home.aspx

Hammond, S. P. (2016). Complex perceptions of identity: The experiences of student combat veterans in community college. *Community College Journal of Research and Practice, 40,* 146-159. doi:10.1080/10668926.2015.1017891

Hart, D. A., & Thompson, R. (2013, June). *"An ethical obligation": Promising practices for student veterans in college writing classrooms.* Retrieved from http://www.ncte.org/library/NCTEFiles/Groups/CCCC/AnEthicalObligation.pdf

Haynes, D. L. (2016). *Implications of military culture on student veterans' behavior at a western US community college* (Doctoral dissertation, Creighton University). Retrieved from http://dspace.creighton.edu:8080/xmlui/handle/10504/106906

Heineman, J. A. (2016). Supporting veterans: Creating a "military friendly" community college campus. *Community College Journal of Research and Practice, 40*, 219-227. doi:10.1080/10668926.2015.1112318

Heitzman, A. C., & Somers, P. (2015). The disappeared ones: Female student veterans at a four-year college. *College and University, 90*, 16-26. Retrieved from http://www.aacrao.org/

Herbst, E. (2013). Overcoming barriers to care for returning veterans: Expanding services to college campuses. *Journal of Rehabilitation Research and Development, 50*(8), vii-vii. doi:10.1682/JRRD.2013.09.0204

Hoge, C. W., Grossman, S. H., Auchterlonie, J. L., Riviere, L. A., Milliken, C. S., & Wilk, J. E. (2014). PTSD treatment for soldiers after combat deployment: Low utilization of mental health care and reasons for dropout. *Psychiatric Services, 65*, 997-1004. doi:10.1176/appi.ps.201300307

Jenner, B. M. (2017). Student veterans and the transition to higher education: Integrating existing literatures. *Journal of Veterans Studies, 2*(2), 26-44. Retrieved from https://journals.colostate.edu/index.php/jvs/index

Johnson, B. (2001). Toward a new classification of nonexperimental quantitative research. *Educational Researcher, 30*(2), 3-13. doi:10.3102/0013189X030002003

Jones, K. C. (2013). Understanding student veterans in transition. *The Qualitative Report, 18*(37), 1-14. Retrieved from http://nsuworks.nova.edu/tqr/

Jovanovic, V., Dean, A., Considine, C., Arcaute, K., Katsiloudis, P., & Tomovic, M. (2016, June). *Pilot programs for veterans transition to engineering fields*. As presented in Proceedings of the American Society for Engineering Education-Annual Conference. doi:10.18260/p.25901

Kees, M., Risk, B., Meadowbrooke, C., Nellett, T., & Spinner, J. (2017). Peer advisors for veteran education (PAVE): Implementing a sustainable peer support program for student veterans on college campuses. *Metropolitan Universities, 28*, 30-49. doi:10.18060/21541

Kirchner, M. J. (2015). Supporting student veteran transition to college and academic success. *Adult Learning, 26*, 116-123. doi:10.1177/1045159515583813

Koo, K. H., Hebenstreit, C. L., Madden, E., Seal, K. H., & Maguen, S. (2015). Race/ethnicity and gender differences in mental health diagnoses among Iraq and Afghanistan veterans. *Psychiatry Research, 229*, 724-731. doi:10.1016/j.psychres.2015.08.013

Labovitz, S. (1968). Criteria for selecting a significance level: A note on the sacredness of .05. *American Sociological Association, 3*(3), 220-222. Retrieved from https://link.springer.com/journal/12108

Layne, V. (2016). *Transitions from military duty to college for United States military veterans* (Doctoral dissertation, Walden University). Retrieved from https://scholarworks.waldenu.edu/dissertations/2493/

Lee, Y. A. (2014). Insight for writing a qualitative research paper. *Family & Consumer Sciences Research Journal, 43*(1), 94-97. doi:10.1111/fcsr.12084

McCaslin, S. E., Thiede, J., Vinatieri, T., Passi, H., Lyon, K. B., Ahern, D. A., . . . Chitaphong, K. (2014). Facilitating veterans' academic success: Veterans integration to academic leadership (VITAL) initiative. *Career Planning & Adult Development Journal, 30*, 191-209. Retrieved from https://www.careernetwork.org/

Miles, R. A. (2014). Career and life transitions of veterans enrolled in community colleges and programs developed to meet their needs. *Career Planning & Adult Development Journal, 30*(3), 172-181. Retrieved from https://www.careernetwork.org/

Miller, M. B., Brett, E. I., Leavens, E. L., Meier, E., Borsari, B., & Leffingwell, T. R. (2016). Informing alcohol interventions for student service members/veterans: Normative perceptions and coping strategies. *Addictive Behaviors, 57*, 76-82. doi:10.1016/j.addbeh.2016.02.009

Naphan, D. E., & Elliott, M. (2015). Role exit from the military: Student veterans' perceptions of transitioning from the US military to higher education. *The Qualitative Report, 26*, 36-48. Retrieved from https://nsuworks.nova.edu/tqr/

Norman, S. B., Rosen, J., Himmerich, S., Myers, U. S., Davis, B., Browne, K. C., & Piland, N. (2015). Student veteran perceptions of facilitators and barriers to achieving academic goals. *Journal of Rehabilitation Research and Development, 52*(6), 701-712. doi:10.1682/jrrd.2015.01.0013

Olsen, T., Badger, K., & McCuddy, M. D. (2014). Understanding the student veterans' college experience: An exploratory study. *US Army Medical Department Journal, 2014*, 101-109. Retrieved from https://www.cs.amedd.army.mil/amedd_journal.aspx

O'Toole, T. P., Johnson, E. E., Aiello, R., Kane, V., & Pape, L. (2016). Peer reviewed: Tailoring care to vulnerable populations by incorporating social determinants of health: the veterans health administration's "Homeless Patient Aligned Care Team" Program. *Preventing Chronic Disease, 13.* doi:10.5888/pcd13.150567

Pearlin, L. I. (1989). The sociological study of stress. *Journal of Health and Social Behavior, 30*(3), 241-256. doi:10.2307/2136956

Pellegrin, J. (2013). The veteran's view. *About Campus, 17*(6), 16-21. doi:10.1002/abc.21101

Pellegrino, L., & Hoggan, C. (2015). A tale of two transitions: Female military veterans during their first year at community college. *Adult Learning, 26,* 124-131. doi:10.1177/1045159515583257

Persky, K. R., & Oliver, D. E. (2010). Veterans coming home to the community college: Linking research to practice. *Community College Journal of Research and Practice, 35*, 111-120. doi:10.1080/10668926.2011.525184

Pesetski, C., Ofstein, J., Outlaw, S., & Brooks, R. (2014). Veteran transfer students and concealed weapons on campus. *Journal of Cases in Educational Leadership, 17*(3), 33-47. doi:10.1177/1555458914543378

Pomerantz, A. S., Kearney, L. K., Wray, L. O., Post, E. P., & McCarthy, J. F. (2014). Mental health services in the medical home in the Department of Veterans Affairs: Factors for successful integration. *Psychological Services, 11*, 243-253. doi:10.1037/a0036638

Radford, A. W., Bentz, A., Dekker, R., & Paslov, J. (2016). *After the Post-9/11 GI Bill: A profile of military service members and veterans enrolled in undergraduate and graduate education.* Washington, DC: National Center for Education Statistics.

Reeves, R. R., Parker, J. D., & Konkle-Parker, D. J. (2016). War-related mental health problems of today's veterans: New clinical awareness. *Journal of Psychosocial Nursing and Mental Health Services, 43*, 18-28. doi:10.3928/02793695-20050701-06

Romero, D. H., Riggs, S. A., & Ruggero, C. (2015). Coping, family social support, and psychological symptoms among student veterans. *Journal of Counseling Psychology, 62*, 242. doi:10.1037/cou0000061

Rumann, C. B., & Hamrick, F. A. (2010). Student veterans in transition: Re-enrolling after war zone deployments. *The Journal of Higher Education, 81*, 431-458. doi:10.1080/00221546.2010.11779060

Schiavone, V., & Gentry, D. (2014). Veteran-students in transition at a Midwestern university. *The Journal of Continuing Higher Education*, *62*(1), 29-38. doi:10.1080/07377363.2014.872007

Semer, C., & Harmening, D. S. (2015). Exploring significant factors that impact the academic success of student veterans in higher education. *Journal of Higher Education Theory and Practice, 15*, 31-43. Retrieved from http://www.na-businesspress.com/jhetpopen.html

Sitzes, J., & Akroyd, D. (2018). *The impact of institutional support programs and policies on veteran students' persistence at North Carolina community colleges*. Manuscript in preparation.

Spencer, L. G. (2016). Faculty advising and student veterans: Adventures in applying research and training. *Journal of Veterans Studies, 1,* 52-71. Retrieved from https://journals.colostate.edu/index.php/jvs/index

Sportsman, M. A., & Thomas, L. (2015). Coming home to school: Challenges and strategies for effective teaching with military veterans. *InSight: A Journal of Scholarly Teaching, 10,* 43-55. Retrieved from http://www.insightjournal.net/

Summerlot, J., Green, S. M., & Parker, D. (2009). Student veterans organizations. *New Directions for Student Services, 2009,* 71-79. doi:10.1002/ss.318

Sutton, H. (2016). Understand updates to student-veteran legislation. *The Successful Registrar, 16*(1), 1-5. doi:10.1002/tsr.30155

Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.

Tinoco, E. M. (2014). Student veterans in higher education: A transitional challenge. *Community Investments, 26*, 28-44. Retrieved from https://econpapers.repec.org/article/fipfedfci/

Tsai, J., Rosenheck, R. A., & Kane, V. (2014). Homeless female US veterans in a national supported housing program: Comparison of individual characteristics and outcomes with male veterans. *Psychological Services, 11,* 309-316. doi:10.1037/a0036323

Turner, D. W., III. (2010). Qualitative interview design: A practical guide for novice investigators. *The Qualitative Report*, *15*(3), 754-760. Retrieved from https://nsuworks.nova.edu/tqr/

U.S. Department of Veteran Affairs. (2015). *GI Bill® comparison tool.* Retrieved from https://www.vets.gov/gi-bill-comparison-tool

VA Campus Toolkit. (2013). *Who are today's student veterans?* Retrieved from http://www.mentalhealth.va.gov/studentveteran/index.asp

Vaccaro, A. (2015). "It's not one size fits all": Diversity among student veterans. *Journal of Student Affairs Research and Practice, 52,* 347-358.

Vacchi, D. T., & Berger, J. B. (2014). Student veterans in higher education. In *Higher education: Handbook of theory and research* (pp. 93-151). New York, NY: Springer.

Vaughan, C. A., Schell, T. L., Tanielian, T., Jaycox, L. H., & Marshall, G. N. (2014). Prevalence of mental health problems among Iraq and Afghanistan veterans who have and have not received VA services. *Psychiatric Services, 65,* 833-835. doi:10.1176/appi.ps.201300111

Voigt, J. (2016). A personal challenge of veteran integration. *Pedagogy, 16*(3), 532-539. doi:10.1215/15314200-3600877

Whiteman, S. D., Barry, A. E., Mroczek, D. K., & MacDermid Wadsworth, S. (2013). The development and implications of peer emotional support for student service members/veterans and civilian college students. *Journal of Counseling Psychology, 60,* 265-278. doi:10.1037/a0031650

Wilson, K. B. (2014). Thank you for your service: Military initiatives on college campuses. *New Horizons in Adult Education and Human Resource Development, 26*, 54-60. doi:10.1002/nha3.20072

Wisco, B. E., Marx, B. P., Wolf, E. J., Miller, M. W., Southwick, S. M., & Pietrzak, R. H. (2014). Posttraumatic stress disorder in the US veteran population: Results from the National Health and Resilience in Veterans Study. *Journal of Clinical Psychiatry, 75,* 1338-1346. doi:10.1002/da.22371

Yang, K., & Banamah, A. (2014). Quota sampling as an alternative to probability sampling? An experimental study. *Sociological Research Online*, *19*(1), 1-11. doi:10.5153/sro.3199