Student Veterans' Career Decision-Making and College Stress:

College Environment, Post-Traumatic Stress Symptoms,

and Sense of Coherence

by

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ABSTRACT

Given the post 9/11 influx of veteran students in higher education and the importance of early career decision-making for establishment of a post-graduation careers, understanding factors that help and hinder the college success and career decision-making of student veterans is needed. The purpose of this study was to explore the experiences of veterans in higher education in relation to career decision-making difficulties. Thus, the influence of variables related to campus environment (mentoring and cultural congruity), experiences of post-traumatic stress symptoms (PTSS) and college stress, and resilience as evidenced by sense of coherence (SOC) was investigated.

A sample of 239 United States Armed Forces veterans (171 male, 67 female, 1 nonbinary) enrolled in institutions of higher education across the United States was recruited through an online program. In addition to a demographic sheet, participants completed self-report measures assessing cultural congruity, sense of coherence, post-traumatic stress symptoms, mentoring, college stress, and career decision-making difficulties.

Hierarchical multiple regressions revealed that of the two constructs comprising campus environment, only cultural congruity was a significant and negative predictor of college stress. Mentoring was not a significant predictor. Post-traumatic stress symptoms predicted college stress above and beyond the variance predicted by college environment. The greater student veterans' post-traumatic stress symptoms, the more college stress they reported experiencing. A moderated hierarchical regression revealed that college environment did not moderate the relation between post-traumatic stress symptoms and college stress. College stress was found to be a positive predictor of career decision-

making difficulties. Sense of coherence did not moderate the relation between college stress and career decision-making difficulties.

Findings are discussed in the context of Schlossberg's transition model, which posits that individuals will navigate the transition process based on their perceptions of the transition and their personal assets and liabilities, factors that influence coping ability. Limitations and clinical implications for working with student veterans are presented. The importance of early intervention to enhance cultural congruity and address post-traumatic stress symptoms and career decision-making difficulties among student veterans is discussed.

To my mother and father, Michelle and Ralph Borenstein,

who have guided, supported, and loved me beyond measure.

Thank you for believing in me through every chapter of life.

To those who have selflessly served our country in the U.S. military,

I am deeply grateful. May we support you with similar commitment.

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CHAPTER 1

PROBLEM IN PERSPECTIVE

With a steady enrollment of service members and veterans in higher education in pursuit of undergraduate and graduate degrees, a differentiated understanding of status of United States (U.S.) military service members is useful for discerning challenges specific to the diverse subgroups within this population. The U.S. Armed Forces, or military, is composed of five branches, including the Army, Navy, Air Force, Marine Corps, and Coast Guard (US Code 10 U.S.C. § 101). Across all branches, the term *service member* refers to anyone who is currently serving on active duty, or committing full-time service, for the U.S. military or as a member of the Reserves or National Guard (Steele, Salcedo, & Coley, 2010). Someone who is a current member of the Army Reserve, Navy Reserve, Air Force Reserve, Marine Corps Reserve, or Coast Guard Reserve but who is not serving on active duty is considered a *reservist* (Steele et al., 2010). The term *veteran* connotes an individual who served on active duty in the armed forces for more than 180 days and was honorably discharged or released or who served at least 90 days with one or more days during wartime and was honorably discharged or released (Danish & Antonides, 2009; US Code 5 U.S.C. § 2108). Generally, a veteran is a former service member who has separated from the armed forces (Steele et al., 2010). The purpose of this study was to explore factors related to college connection and career decision-making of veterans returning to school.

A distinct population, student veterans are more likely to be older and male than U.S. nonveterans. Veterans in general comprised 8% of the noninstitutional civilian population aged 18 years and older in 2018 [Bureau of Labor Statistics (BLS), 2019].

Although ten percent of the total living 19.2 million veterans were women, females constituted 16% and 17% of veterans who served in Gulf War era I (August 1990 to August 2001) and Gulf War era II (September 2001 onward), respectively, significantly larger proportions of service members than in previous service eras. Differences in unemployment rates among veterans and nonveterans were not significantly different (BLS, 2019), a noteworthy change from the previous BLS survey which identified elevated unemployment rate for males aged 25 to 34 years who served during Gulf War-era II (post September 2001) as compared to their nonveteran counterparts (BLS, 2017). The 4.1 million Gulf War-era II veterans, who comprised roughly one-fifth of the veteran population in 2018 (BLS, 2019), served missions in the wars of Afghanistan and Iraq (e.g., Operation Iraqi Freedom, Operation Enduring Freedom, Operation Noble Eagle, Operation New Dawn). Approximately 54% of Gulf War-era II veterans were age 35 years or older in 2018. About 41% of Gulf War-era II veterans reported a service-connected disability in 2018, compared with 25% of all veterans. The percentage of Gulf War-era II veterans aged 25 years and older who earned a bachelor's degree or higher (38.3%) or some college or associate degree (39.5%; total = 77.8%) was higher than that for all veterans (32.3% and 34.8%, respectively; total = 67.1%) and nonveterans (35.6% and 25.4%, respectively; total = 61.0%) (BLS, 2019).

The Prudential Foundation (2012) surveyed Gulf War-era II veterans and soon-to-be veterans regarding employment challenges faced following transition to civilian life. Of the 1,845 participants, almost half reported that they did not feel ready to make the transition, citing unemployment, health difficulties, time needed to determine next steps, and desire to "decompress" following their service (p. 3), among other reasons. Concerns

regarding cultural barriers in the workplace were endorsed by 58% of participants. Roughly half (48%) of respondents noted concern about employers not understanding military culture, with approximately one-third (37%) reporting feeling that they will not be able to relate to coworkers or vice versa, and 32% indicating that they believed civilian co-workers are intimidated by veterans. Finding work that was personally meaningful was the most frequently cited concern of surveyed veterans and soon-to-be veterans, with 80% of participants endorsing this statement. Practical concerns related to finding employment included impact on family (56%), reasonable accommodations for health-related needs (42%), and, for Reserve members, employer support for Reserve commitments some transitioning veterans may have (40%). Among veterans who reported having only a high school degree, 74% reported a desire to achieve an undergraduate college degree or higher education status (Prudential Foundation, 2012). The aspirations for high educational attainment and the unique employment concerns of veterans highlight a need for understanding of the experiences of veterans in higher education, particularly as they relate to preparation for meaningful careers. Therefore, one aim of this study was to examine personal and academic factors potentially related to student veterans' career decision behaviors.

Student Veterans

Almost 900,000 service members, veterans, and their family members were beneficiaries of the Department of Veterans Affairs (VA) education benefits during 2018, according to the Veterans Benefits Administration (VBA) Office of Resource Management (VBA, 2019). Two-thirds of the student veterans in one survey reported using funding from the Post-9/11 GI Bill (Prudential Foundation, 2012). The Prudential

Foundation's (2012) survey identified 44% of veterans as students, with 30% indicating full-time status and 14% part-time. Who are these student veterans? Myths about active-duty students and student veterans abound, including assumptions of lower college success rates, lack of preparation for college, resistance to support, and willingness to vocalize dissent or dissatisfaction with their educational experiences [National Association of Student Personnel Administrators (NASPA), 2013]. However, available data and reports of academic professionals who work with this population portray a different reality.

Historically, higher education institutions have not tracked enrollment and completion rates of service member students well. Indeed, NASPA (2013) indicated that as recently as 2012, roughly two-thirds of its surveyed member institutions did not gather disaggregated completion or retention data for student veterans or active-duty military students. Identifying service member or veteran students by use of funding from the Department of Defense (DoD) or the VBA is a common but imperfect practice at the institutional level that may miss students who fall into this population but do not utilize funding or may erroneously designate veterans who stop using funding as dropouts (Cate, 2014; NASPA, 2013). During the 2011-2012 academic year, 41% of student veterans did not use VA or DoD education benefits (Molina & Morse, 2015). Tracking transfer students or students who stop-out (take a temporary leave) can also prove problematic for institutional assessment (NASPA, 2013).

Culling data from the 2016 Student Veterans of America (SVA) Census and the National Veteran Education Success Tracker (NVEST), the SVA 2017 profile on student veterans depicted the "typical" veteran as aged 25 or older, male, married (45%), and

pursuing postsecondary education in a field different than their military occupation. Additionally, close to half of student veterans had children (46%) and worked full- or part-time during schooling (46%) (SVA, 2017). Roughly half (51%) of the student veterans participating in NVEST reported having a VA disability rating, with approximately four of five of those veterans indicating that their disability contributed to school stress (Cate et al., 2017). Some demographic data appears to mirror that of veterans in the noninstitutionalized civilian population overall [e.g., data collected in the 2017 American Community Survey indicated veterans were more likely to be or to have been married than non-veterans (National Center for Veterans Analysis and Statistics, 2019)].

Although less recently gathered, the American Council on Education's (ACE) data regarding student veterans and service members may help to round out the picture of who makes up the student veteran population (Kim & Cole, 2013). During the 2011-2012 academic year, the average age of student veterans and service members enrolled in four-year universities was 33 years (versus 22 years for nonveteran/civilian students). Most student veterans identified as White (68.2%), followed by African American (10.6%), Hispanic (7.8%), Asian American (3.1%), American Indian (1.5%), multi-racial/ethnic (1.7%), and other (7.1%), reflecting more diversity than the nonveteran/civilian college population (Kim & Cole, 2013). Compared to nonveteran college students, student veterans and service members were also more likely to report spending more than 10 hours per week working for pay off campus (29.6% v. 43.1%) and providing care to dependents living with them (12.1% v. 43.1%). A majority (69.5%) of student veterans and service members reported spending more than 10 hours per week

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preparing for class, comparable to nonveteran students (65.4%). However, fewer veteran students and service members reported engaging in campus and co-curricular activities, socializing, experiential learning activities, and collaboration with peers on assignments outside of the classroom. Although student veterans and service members were more likely to report positive relationships with faculty members and administrative personnel on campus than nonveteran students are, they were slightly less likely to indicate experiencing friendly and supportive relationships with other students (58% versus 62%, respectively) (Kim & Cole, 2013). It is evident that student veterans differ from their non-veteran college peers in a number of ways. Identifying whether these differences in demographics and life experiences influence degree attainment is important for understanding veterans' experiences in higher education.

Degree Attainment. Despite their nontraditional student characteristics, including increased likelihood of balancing additional responsibilities beyond typical college student tasks, veterans are persisting in college. Coordinated in conjunction with the SVA, the U.S. Department of Veterans Affairs (VA), and the National Student Clearinghouse, the Million Records Project (MRP) (Cate, 2014), examined educational attainment data during a 10-year timeframe of approximately 22% of the student veterans who received GI Bill benefits between 2002 and 2010, a sample of the records of 788,915 veterans. Average time-to-completion for an associate-level degree was 5.1 years, with half (52.6%) of associate-level degrees completed within four years. For baccalaureate-level degrees, the average time-to-completion was 6.3 years, and most (59.4%) of baccalaureate-level degrees were finished within five years. Cate (2014) noted, "It is likely that individuals reporting extended times-to-completion were not continuously

enrolled and many factors, both personal and military-related, may have contributed to their longer academic careers" (p. 44). For instance, interruptions to schooling (i.e., military deployments) delay veteran and service member students' time-to-completion for degree attainment (Cate, 2014).

Although making direct comparisons with traditional student completion rates is challenging due to differing research methodologies, veterans' rate of completion parallels the rate for nonveteran students (Cate, 2014). According to the National Center for Education Statistics (NCES), 59% of first-time, full-time students who started school in fall 2009 earned their undergraduate bachelor's degrees at the same four-year degree-granting institution within six years. Just 29% of first-time, full-time undergraduate students who began earning a certificate or associate degree in fall 2012 attained it within three years (NCES, 2017). Although these figures seem to suggest comparable or higher educational attainment among veterans and service members compared to other students, more exploration is needed to provide valid comparison data.

Post-9/11 GI Bill. The Post-9/11 Veterans Assistance Act of 2008, also known as the Post-9/11 GI Bill or "new GI Bill," is often credited for the influx of student veterans and military personnel enrolling in higher education since 2009. Like its predecessor, the Servicemen's Readjustment Act of 1944, the Post-9/11 GI Bill offered significant financial support for the educational costs incurred by members of the armed forces. The latter allocated funding for the then-2 million members who had served in the Iraq and Afghanistan conflicts (Radford, 2009). Legislative changes made to the GI bill in the years following its enactment addressed benefit coverage for student veterans and their families and refined requirements for educational institutions that service them.

The GI Bill Tuition Fairness Act of 2013 established a requirement for colleges to charge student veterans the in-state tuition rate regardless of their residency status (GI Bill Tuition Fairness Act of 2013). In one study, a 10.9 percent increase in full-time enrollment was identified post-GI Bill use, though researchers acknowledged that other factors may allow for more time to commit to increased course load (Cate et al., 2017). In 2018, there were 708,069 beneficiaries of the Post-9/11 GI Bill (VBA, 2019).

More recent data collected by SVA through NVEST, a project tracking post-secondary outcomes of students who utilized Post 9/11 GI Bill benefits, determined a student veteran college "success rate" of 71.6% during 2015, six years following the bill's implementation (Cate et al., 2017). GI Bill beneficiaries were deemed successful in their pursuit of a degree if they had completed the degree (53.6%) or were currently persisting in their degree program (18.0%), defined as being enrolled between January 1 and September 1, 2015. Attrition reached 28.4% percent, with 19.8% successfully completing the last term in which they were enrolled. Overall, 54.2% of student veterans participating in the project reported withdrawing from classes prior to the end of at least one term. Per the study results, 347,564 student veterans earned degrees during this time period, and approximately one-fourth of these students earned multiple degrees or certificates (Cate et al., 2017).

Since the Post-9/11 GI bill's enactment and the increase in enrollment of student veterans in higher education, colleges and universities have generally responded with veteran-friendly changes to institutional policies, including implementation of programs and services targeted to this population (NASPA, 2013). NASPA surveyed 239 member institutions on the campus services supporting student veterans and service members.

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Participating campuses represented public, private, large, and small institutions across the U.S. Roughly three-fourths of respondents reported having dedicated personnel or resources intended to enhance student service member success for active duty military students and student veterans. However, the majority of survey institutions did not track service member retention and completion data separately from the overall student population, which would be necessary to assess the effectiveness of the programs and initiatives in place. Twenty-eight percent of participant institutions reported tracking retention or degree completion of active duty military students, and 33% reported tracking retention or degree completion data of student veterans (NASPA, 2013). However, only 25% of participant institutions indicated having a detailed understanding of attrition among their student veterans and active-duty military students (NASPA, 2013). The NASPA study failed to examine factors related to success and retention of service members. Some of these factors include the campus environment and relationships on campus as well as more individual idiosyncratic variables such as perceived stress, experienced trauma, and personal resilience. In addition, career goals or decision-making were not examined.

College Success and Veterans

Success in college has been defined in many ways. Some scholars operationalize success as a high GPA or as completion or degree attainment (e.g., Bowen et al., 2009; Hackett et al., 1992; Tinto, 1993; Zajacova, Lynch, & Espenshade, 2005). Few studies, however, have defined it as successful career decision-making that leads to post-graduation career establishment.

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Career Decision-Making. The decisions made when entering the labor force are impactful for future career success. For many occupations, higher education is necessary in order to establish and advance in one's career, making an individual's choice to invest in college studies a decision of no small weight. Research underscores the influential shaping of one's long-term career trajectory by early job decisions and placements, particularly in relation to market trends and conditions. Quality of initial job opportunities, salary and wage adjustments, and mobility, among other factors, can shift significantly following economic changes. However, those effects appear to be stronger and longer lasting for workers with less workforce experience and whose early wages and ability are situated at the bottom end of the distribution. Recently, in their exploration of immediate and persisting career effects of college graduates' entry into the workforce during periods of economic recession, Oreopoulos, von Wachter, and Heisz (2012) found that workers designated as "low-skilled," determined by college background and preparation, were more likely to experience long-lasting effects of economic downturn, including longer "catch-up" of lost wages. Thus, college persistence remains a variable of interest in achieving success at the beginning of one's career.

Identified in the research literature are seven individual factors that negatively affect persistence and attainment in higher education (Choy, 2002; Coley, 2000; Horn et al., 1995; Schmid & Abell 2003; Skomsvold et al., 2011): delayed college enrollment; no high school diploma; part-time college enrollment; financially independent; having dependents; single parent status; and full-time work while in college (Molina & Morse, 2015, p. 15). In a national sample of military-connected undergraduate students surveyed during the 2011-2012 academic year, all participants identifying as student veterans

endorsed having at least one of the factors, while 44% of student veteran participants endorsed having four or more (Molina & Morse, 2015). Thus, attention to this population's connection to and experiences in college is particularly important.

For college students, selection of a major is as practically critical as it is existentially important for career decision-making (McMenamin & Kurzynski, 2016). Students who have not declared a major are at risk for prolonging their time to degree completion. Access to advanced and upper-division courses in a major of interest is typically predicated on students completing prerequisite coursework and maintaining minimum academic performance requirements, which may be particularly challenging for students who have not decided on their major or who are unable to declare due to academic performance reasons. For student veterans, financial considerations may add another layer of complexity and pressure to decision-making. The Post 9/11 GI Bill generally provides tuition coverage for the minimum time necessary to achieve a four-year degree: 36 months (e.g., McMenamin & Kurzynski, 2016; Radford, 2009). Early major and career decision-making facilitates "on-time" degree completion and minimizes out-of-pocket costs for veterans who would otherwise need to extend their undergraduate study (McMenamin & Kurzynski, 2016).

Research during the last 25 years, however, challenges the historically held assumption that undeclared students are at greater risk for attrition (e.g., Graunke et al., 2006; Lewallen, 1993). Current scholars and academic advising professionals tend to agree that retention and degree completion does not appear to be necessarily tied to major and career indecision or declaration of a major upon matriculation to college (e.g., Buyarski, 2009; Cuseo, 2005; Graunke et al., 2006; Spight, 2008). Cuseo (2005)

suggested that understanding *how* students choose majors is more important than *if* they have chosen a major, arguing that students who lack information, planning, and self-knowledge may be more at-risk for potential attrition than are undeclared students overall. Graunke and colleagues' (2006) findings offer some support for the supposition that decidedness is not necessarily predictive of academic success. In their study, college students reporting higher levels of commitment to a college major were less likely to complete a degree in six years than were students who reported lower commitment levels to a specific major. Conversely, students reporting higher institutional commitment and commitment to an educational goal were most likely to graduate within six years (Graunke et al., 2006). These findings suggest that commitment to a major or major decidedness is not the remedy to persistence and completion concerns. Rather, the authors suggested that the general education offered by some institutions of higher education may provide students a safe base from which they can explore academic programs and career options with reduced fear or concern about failing to make degree progress or declare a major (Graunke et al., 2006). From this perspective, undeclared and major- or career-committed students may both benefit from general education that allows for career exploration to facilitate informed major and career decision-making.

   Career Decidedness and Decisiveness. Several similar but distinct constructs are relevant for understanding career decision-making and related literature. Undecided students may be described as those students who are "unwilling, unable, or unready to make educational and/or vocational decisions" (Gordon, 2007, p. viii). Indecisive students are those who have trouble making any decision (Appel et al., 1970; Gordon, 2007). Steele and McDonald (2008) asserted that indecisive students' inability to make

commitments is reflected across many or most areas of their lives. Although the developmental and decision-making problems indecisive students have mirror those of undecided students (Steele & McDonald, 2008), indecisive students' difficulties are often coupled with higher levels of anxiety, problem intensity, or psychosocial concerns (e.g., Gaffner & Hazler, 2002; Salomone, 1982; Van Matre & Cooper, 1984, as cited in Steele & McDonald, 2008). A state of indecisiveness is believed to involve more dysfunctional career thinking (Austin et al., 2010; Austin et al., 2004; Sampson et al., 2004).

Career decidedness indicates the degree of certainty individuals endorse about their specific career choices whereas career decisiveness is an assessment of one's ability to "independently and resolutely" decide on a career (Hartung, 1995). Austin and colleagues (2010) noted, "[Decisiveness] considers the individual's belief in his or her capability to make decisions without avoidable delay, difficulty, or dependence on others" (p. 69).

A glance at the variety and volume of career options makes evident the complexity and difficulty of deciding on an occupation. Following its 2010 revision, the online occupational resource O*NET boasts a collection of descriptive data on 974 occupations (O*Net Resource Center, n.d.). Difficulty with career-related decisions is associated with several negative outcomes related to psychological health and well-being and academic performance, including increased risk of academic failure, personal distress, and maladjustment (e.g., Feldt et al., 2010), depression (Saunders et al., 2000), anxiety (Santos, 2001), and low self-esteem and career choice anxiety (Betz et al., 1996; Park et al., 2018). Decision-making difficulties often reflect career indecision (Guay et al., 2003; Kelly & Lee, 2002), which has been associated with fear of commitment and

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dimensions of self-consciousness and perfectionism (Leong & Chervinko, 1996), poor

self-efficacy (Betz & Voyten, 1997), and negative career thoughts (Kleiman et al., 2004;

Saunders et al., 2000). Negative career thoughts have been linked to academic

undecidedness (Kilk, 1997), career undecidedness (Austin et al., 2010), and career

indecisiveness (Austin et al., 2004) and may hinder career decision-making (e.g., Strauser

et al., 2002). Personality factors have also been linked to career decision difficulties

(e.g., Albion & Fogarty, 2002). Kelly and Shin (2009) identified a positive association

between neuroticism and decision problems related specifically to lack of information.

In consideration of these issues, reducing career indecision among students and

adults alike is needed. Facilitating career decidedness, however, is more complex than

eliminating career indecision (Shin & Kelly, 2015). Traditionally, career decidedness is

considered a temporary and developmental state that remains until a decision is made

(e.g., Osipow, 1999) and reflects one's amount of certainty about a specific career

decision (Gordon, 2007). There is some evidence to support that decidedness is

influential in academic persistence decisions (e.g., Marso & Pigge, 1997; Restubog et al.,

2010). In a longitudinal survey of 146 undergraduate students and their parents,

Restubog and colleagues (2010) found that career decidedness, along with career self-

efficacy, mediated the relation between contextual support (i.e., parent support, career

counseling sessions) and students' academic persistence, measured as reduced academic

program turnover. As noted, becoming decided likely reflects several factors, among

them social support, and may play an important role for student outcomes during college

and beyond. The social identity and support associated with military service may amplify

the importance of these factors when examining student veterans' decidedness.

Transition Through College. Although limited research exists on how the transition from military service through higher education shapes student veterans' career-related choices and decisions, there is evidence to suggest that military service uniquely influences career choice and major decision-making. Logically, one's military work experience may contribute to confidence and perceptions of self-competence in relation to specific, related work tasks. Some research grounded in Social Cognitive Career Theory indicates one such task would be career decision-making itself. In Gravley's (2012) study of career decision self-efficacy among veterans in transition to college, participants whose work tasks during military service (i.e., military career) lined up with their proposed, non-military career plans reported higher levels of career decision self-efficacy in areas of self-appraisal, occupational information, planning, and problem-solving, though not goal selection. Ghosh and Fouad (2016) suggested that veterans' self-exploration, an integral component of connecting self with careers during the career decision-making process, may be impeded by their prior work or task assignments during military service. A qualitative study conducted with veterans returning from deployments lends support to this assertion. Krieshok et al. (1999) identified a major transitional challenge veterans described upon returning from military service as difficulty with their vocational identities. Storytelling was employed as an intervention to facilitate clarity in conceptualization of their career plans and future and related goals, and it required veterans' self-exploration of careers of interest (Krieshok et al., 1999). Similarly, major declaration requires some level of career exploration, represents early development of a vocational identity, and constitutes a significant and distinct college

task. Attention to the transition process through college may contextualize the potential

career and major decision-making challenges of student veterans.

 Adult Transition Model. A significant challenge for student veterans is the

transition from highly structured military living to a fairly unstructured college life

(Mares & Rosencheck, 2004). How student veterans manage the transition to college and

cope with the stress related to the cultural changes and new responsibilities they face can

be theoretically understood using Schlossberg's (1981) transition model. Within the

model's framework, *transition* denotes "any event or nonevent [negative or positive] that

results in changed relationships, routines, assumptions, and roles" (Goodman et al., 2006,

p. 33). The perceived significance of the transition to the individual, the individual's

connection to the transition (context), and the extent to which the transition impacts the

individual are typically more important and meaningful aspects of the transition than the

transition event itself (Anderson et al., 2012; Schlossberg, 1981; Schlossberg et al., 1995;

Goodman et al., 2006). Furthermore, a transition must be perceived as such by the

individual experiencing it in order for the transitional process to be described as one

(Chickering & Schlossberg, 1995; Goodman et al., 2006). During adulthood, individuals

encounter transitions that are anticipated (predictable and expected), unanticipated, or

nonevents (anticipated events that do not occur) (Chickering & Schlossberg, 1995;

Goodman et al., 2006). The college transition, an anticipated event, is distinct from the

unanticipated and nonevents that likely characterize some veterans' military service (e.g.,

short notice prior to deployment; plans for moving to a new unit delayed).

 During transitions, individuals evaluate the transition over time and determine

potential positive and negative effects of the transition, "take stock" of the resources

available for managing the transition and associated changes, and take charge or action to manage the stress the transition evokes by using those resources (Anderson et al., 2012; Goodman et al., 2006; Schlossberg, Lynch & Chickering, 1989; Schlossberg et al., 1995). Individuals present with an idiosyncratic array of resources (Sargent & Schlossberg, 1988) and may also attempt to identify ways to strengthen insufficient resources. Schlossberg (2004) highlighted the perceived impact of the transition, not the transition itself, as the relevant and critical component of changes: "The bigger the change [to one's roles, relationships, routines, and assumptions], the greater the potential impact and the longer it may take to incorporate the transition and move on" (Schlossberg, p. 3–4, as cited in Ostovary & Dapprich, 2011).

Discussion of the utilization of coping resources helps to explain how adults in transition reach goals and desired outcomes (e.g., Anderson et al., 2012; Griffin & Gilbert, 2015; Livingston et al., 2011). Coping resources are described as one of four identified "S" factors: self, support, situation, and strategies (Chickering & Schlossberg, 1995; Schlossberg et al., 1995). *Self* refers to a wide range of intrapersonal coping resources, specifically personal characteristics and psychological resources including maturity, resilience, or level of commitment (Anderson et al., 2012; Rumann & Hamrick, 2010). *Support* includes interpersonal relationships (e.g., family, friends, mentors), campus and community resources, financial resources, and other external resources, including policies in place to assist the individual, that may provide positive, affirming feedback during transitions (Anderson & Goodman, 2014). Perception of the *situation* follows an individual's assessment of the transition as positive or negative, temporary or permanent, and necessary or optional, the expectations of the situation, and other factors

(Griffin & Gilbert, 2015). *Strategies* speak to the individual's method of organization and planning of coping practices. They manifest as behavioral skills for managing transitions and include seeking information, acting and inhibiting action, and intrapsychic behavior, among other approaches (Griffin & Gilbert, 2015).

The transition phases *moving in, moving through,* and *moving out* of the Integrative Model of the Transition Process (Schlossberg et al., 1989) more specifically address phases experienced upon transitioning higher education environments. *Moving in* is the transition starting point during which students are just beginning to experience their new surroundings. At this phase, students may experience social and cognitive dissonance as they concurrently hold on to pre-transition ties and roles (professional and social) and step into new roles (Barbour, 2014; Schlossberg et al., 1989). If role distinctions are stark and difficulties with adjustment to new roles occurs, a prolonged "moving in" phase or potential for dropping out may occur (Barbour, 2014) as the student may feel more marginal and disconnected from the campus environment (Schlossberg, 1989). Particularly for student veterans, the role transition may be substantial and challenging (DiRamio, Ackerman, & Mitchell, 2008). Indicators of the *moving through* phase are development of a social support system as well as partial adjustment to and accommodation for new roles, marking a successful "moving in" (Barbour, 2014; Schlossberg et al., 1995). During this time, evaluation of the importance of the new role(s) may take place (Schlossberg et al., 1995). *Moving out* reflects the end of the transition (e.g., graduation). Although assumed to occur linearly, the phases do not have timeframes by which individuals are expected to move forward; phases will vary by individual given the diverse range of coping skillsets and availability of resources

(DiRamio et al., 2008). The current study was conceptualized from Schlossberg's transition framework with a focus on student veterans' experiences as they transitioned through higher education.

Qualitative research with student veterans and grounded in transitional theory provides support for the "uncertainty and vulnerable nature of transitions" and the three-pronged classification of transitions (Livingston et al., 2011, p. 325). Rumann and Hamrick (2010) suggested that assessment of the situation (e.g., college environment) and relying on support were the most important factors for veterans' academic success in college. Griffin and Gilbert (2015) emphasized a need for veterans to explore all coping resources (the four "S"s) to facilitate successful transition and navigation of the college environment and discussed the potential influence of institutional resources and policies on adjustment to college.

Mattering. As successful transitioning to new roles is paramount for adjustment, reducing experiences of marginality and facilitating connections to members of the campus environment and to the college itself seem necessary. According to the theory of marginality and mattering by Rosenberg and McCullough (1981) and extended by Schlossberg (1989), perceived mattering plays into personal motives and can impact choices made and actions taken. Mattering, defined as "a motive [influenced by] the feeling that others depend on us, are interested in us, are concerned with our fate, or experience us as an ego-extension" (Rosenberg & McCullough, 1981, p. 165), decreases the experience and feelings of marginality. Applying the theory to students in transition, Schlossberg (1989) noted, "Involvement creates connections between students, faculty, and staff that allow individuals to believe in their own personal worth" (p. 5).

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Exploration of the construct of mattering among adolescents (Marshall, 2001; Rosenberg & McCullough, 1981), college students (e.g., Dixon & Robinson Kurpius, 2008; Dixon Rayle, 2005; Dixon Rayle & Chung, 2007; Schieferecke & Card, 2013; Sutton & Kimbrough, 2001), and employed adults (Schieman & Taylor, 2001) offers evidence for the importance of perceived connection and support to facilitate feelings of mattering and behaviors of success. For example, Dixon Rayle and Chung (2007) found that first-year undergraduate students' self-reports of social support from college friends and family predicted feelings of mattering to friends and to the college. Further, mattering at the college was the most powerful predictor of levels of academic stress (Dixon Rayle & Chung, 2007). Fostering experiences and perceptions of mattering at institutions of higher education and to the people with whom students interact in the college environment may be essential for enhancing positive college experiences and outcomes, including career decision-making.

College Environment and Campus Relations

As service members and veterans transition through college, they may find "fitting in" a challenge, both socially and cognitively (e.g., Radford, 2009; Weber, 2012). The cultural shift from military life to a civilian-centered community on campus can be jarring for several reasons, including the differing developmental stage of the traditional undergraduate college student as compared to that of the student veteran. Most student veterans are dissimilar to the aged 21 and under traditional college students (Radford, 2009) who may be leaving home for the first time and exploring their identities (Erikson, 1968). Military students and student veterans tend to be older (Kim & Cole, 2013; Lang, Harriet, & Cadet, 2013), married and/or have children (e.g., Lang et al., 2013; Radford,

2009), and may have familial or work responsibilities that require attention in addition to their academic workload (e.g., Kim & Cole, 2013; Lang et al., 2013; Radford 2009). When military students and student veterans begin college, they often find that they are years older than their classmates and campus "peers" (Bauman, 2009).

Furthermore, veterans may feel disconnected or isolated due to perceived cultural differences between the college culture and military culture (e.g., McAndrew et al., 2019; Weber, 2012) and lack the personal college-related social support relationships that may facilitate feelings of mattering (e.g., Dixon Rayle & Chung, 2007). Qualitative research with student veterans also suggested that situation factors (e.g., perceptions of college culture) and support factors (e.g., interpersonal and institutional supports) influence veterans' experiences of experience the college environment and, ultimately, academic success during higher education (Rumann & Hamrick, 2010). One institution-related source of interpersonal support, mentoring, may enable students to gain familiarity and comfort with a new or different cultural context with direction and support from a member of the college community (e.g., Gloria et al., 2000). Mentoring's positive influence on a variety of outcomes for college students has been well-documented (e.g., Bordes-Edgar et al., 2011; Campbell & Campbell, 1997; Castellanos et al., 2016; Crisp & Cruz, 2009; Terenzini, Pascarella, & Blimling,1996). Given this research highlighting the importance of cultural fit and support for students' higher education experience, college environment was conceptualized as cultural fit (cultural congruity) and college-specific support (mentoring) in the current study.

Cultural Fit. Given that military students are older and may have had experiences that differed drastically from those of the traditional undergraduate, student

veterans may have difficulty with cultural fit. The extent to which students feel as though they "fit in" with the campus environment and that their culture is reflected in the campus culture is referred to as cultural congruity (Gloria & Robinson Kurpius, 1996). Alternatively, cultural incongruity speaks to the experience of differences in cultural expectations, values, and beliefs of an individual's culture(s) and the mainstream culture (Gloria & Robinson Kurpius, 2001; Gloria & Rodriguez, 2000). Gloria and Robinson Kurpius (1996) first used the term in relation to racial and ethnic minority students in a White campus environment. Cultural congruity has since been examined among racial and ethnic minority students, (e.g., Constantine et al., 2002) including African American students (e.g., Constantine & Watt, 2002), Latina/o students (e.g., Gloria et al., 2005; Gloria & Robinson Kurpius, 1996; Hurtado & Carter, 1997), Native American students (e.g., Chee et al., 2019; Gloria & Robinson Kurpius, 2001), as well as among women (e.g., Gloria et al., 2001; Dixon Rayle, Arredondo, & Robinson Kurpius, 2005), and student veterans (e.g., Chiu, 2013; Weber, 2012). Cultural congruity has been identified as a significant predictor of life satisfaction (Castellanos et al., 2016) and academic persistence decisions of racial and ethnic minority undergraduate students (Gloria & Robinson Kurpius, 1996, 2001; Gloria et al., 1999; Rigali-Oiler & Robinson Kurpius, 2013). Weber (2012) explored factors affecting college retention among 490 student veterans and service members. Cultural congruity and social support were strongly associated with retention of student veterans. Thus, facilitating cultural fit on campus for military students may be critical to ensuring continued academic progress and completion. Kelley and colleagues (2013) suggested that college programs have

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"intuitively moved in that direction" by providing early assistance as veterans transition as well as connecting veterans in classes for the development of social support.

Further, exploration of related constructs, including belongingness and mattering, underscores the importance of facilitating student veterans' connection to their university or college. Barry and colleagues (2019) framed questions of student service members' and veterans' integration into campus communities and higher education settings as belongingness. Forty-two percent of student service members/veterans (SSM/V) reported low sense of belonging in contrast to 28% of civilian participants and 33% of surveyed Reservists, distinguished from SSM/V in this sample. A construct highlighted in Schlossberg's (1989) transition model, mattering has been found to have a direct effect on college student involvement and sense of belonging and an indirect effect on intent to persist (Tovar, 2013). Social connectedness, too, overlaps with cultural congruity, and the former has been found to have a negative direct effect on symptoms of PTSD (Kintzle et al., 2018).

Expanding operational definitions of cultural congruity may impact measurement and comparison of data as exploration of this construct continues. For instance, McAndrew and colleagues (2019) surveyed 814 student service members and veterans regarding their transition to college and sense of cultural incongruity, measured by assessing feelings of belongingness via the Cultural Congruity Scale (CCS; Gloria & Kurpius, 1996) and feelings of being understood by others regarding participants' experience of academic barriers via a new scale. The latter scale was developed by soliciting participant report of the degree to which a variety of challenges (e.g., memory or attention problems, being treated differently, lack of support from teachers) negatively

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impacted their academic success during the previous six months and participant

perception of how others viewed the extent to which the same barriers negatively

influenced participant success during that timeframe. Using polynomial regression and

response surface analysis, researchers were able to determine the "degree to which the

relationship between [a participant's] perceived academic barriers and adjustment to

college [was] dependent on [a participant's] perception of others' view of [the

participant's] academic barriers" (McAndrew et al., 2019, p. 683). Such analyses

allowed for exploration of incongruence between participant's and others' perceptions of

the participant's experience of challenges as well as the direction of that incongruence

(e.g., if participants perceived their barriers as greater or lesser than others perceived the

barriers for participants). On average, student service members and veterans in this

sample indicated they "slightly agree that they experience cultural congruity" (p. 684)

and viewed others as underestimating the impact of academic barriers participants

experienced. Cultural incongruity as assessed by the CCS predicted reported adjustment

to college. Feelings of being understood by others about experienced academic barriers

(i.e., congruence between self- and other-perception of barriers) somewhat buffered the

relationship between adjustment to college and the three types of academic barriers

assessed (i.e., perceived lack of university support, conflict with nonacademic life, and

physical and mental health).

Assessing cultural congruity for student veterans is particularly significant as

military and civilian cultures understandably differ. Values instilled in student veterans

during their military training may not be similarly supported, valued, or understood by

civilian students, advisors, faculty, and other campus connections (McReynolds, 2014).

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Further, it may be difficult for student veterans to adapt specific skills and behaviors developed during military service for survival in ways that are appropriate to civilian life (Castro et al., 2006). Military researchers have developed targeted programming to assist with effective transitioning to home and facilitate peer identification of service members who may benefit from mental health support during transition. For instance, Castro and colleagues' (2006) BATTLEMIND resiliency training program illustrated the potential challenges veterans may face in translating their skills to civilian settings (Castro et al., 2006). The title, BATTLEMIND, serves as an acronym for military-valued behaviors and skills, critical to survival during combat, that must be adapted once off the battlefield, including working as a team or with buddies, accountability, targeted aggression, tactical awareness, lethally armed, emotional control, mission operational security (OPSEC), individual responsibility, non-defensive (combat) driving, and discipline and ordering. Highlighting the cultural differences of military life/service versus civilian life, training materials note the problematic nature of these skills if not successfully adapted to the culture of civilian life. For example, veterans can become isolated or withdrawn, may be seen as controlling, may have difficulty with anger control, may remain hypervigilant, may feel unsafe without weapons or remain "locked and loaded" when at home, may be cold and detached, may be secretive, may have guilt or feel unable to ask for help, may engage in aggressive behavior or driving, and may experience conflict related to discipline (Castro et al., 2006). Notably, roughly one-third (34%) of veterans and soon-to-be veterans surveyed by the Prudential Foundation (2012) reported receiving no assistance or training for transitioning from the military to the civilian workforce, and

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60% reported concerns about "translating" their skills to skills of interest for a civilian employer.

One of several factors that may promote or erode a sense of cultural fit is interactions with students, staff, and faculty (Castellanos & Gloria, 2007; Lim et al., 2018). Cultural differences and misunderstandings may become clear in the daily interactions student veterans experience with members of the campus community. DiRamio et al. (2008) noted that military students may not draw attention to their military service background to avoid discomfort arising from a number of interactions, including inappropriate questions about their military service (e.g., if the service member has ever killed someone) or being "outed" in class with regard to their military service, thereby removing the anonymity they may have cultivated. Criticism of military during class may also disturb and erode feelings of belonging and alienate student service members and veterans (DiRamio et al., 2008; Herrmann et al., 2008), reducing the likelihood that veterans will feel cultural congruity on campus.

Mentoring. The second component of campus environment that has found to be important to veteran success is mentoring. Therefore, having a mentor to assist in a successful transition through college and post-military life may be important. Following their qualitative research with 25 university student veterans, DiRamio and colleagues (2008) argued for the use of mentors, among other strategies, to facilitate successful transitions to campus life. Personal relationships such as mentoring allow students to explore and become familiar with a different cultural context with the guidance and assistance of someone already versed in the campus community. Seemingly ubiquitous in organizational, academic, and military environments, mentoring is an established and

evidence-based approach for facilitating successful transitions into a variety of work environments.

Although consensus is lacking for a definition of mentoring, Jacobi (1991) identified several aspects of the concept that are supported throughout the literature. She described mentoring relationships as "helping relationships" and noted, "The primary dynamic of the mentoring relationship is the assistance and support provided to the protégé by the mentor" (p. 513). Mentors demonstrate higher achievement, experience, or influence in the environment in which mentoring takes place relative to the protégé or mentee. The focus of mentoring is on the growth, development, and achievement of an individual and may include a variety of forms of help and guidance (e.g., Cullen & Luna, 1993; Hansford, Ehrich, & Tennent, 2004). Jacobi's (1991) identified components of the mentoring relationship, including role modeling (e.g., Brown, Davis, & McClendon, 1999, Crisp & Cruz, 2010; Nora & Crisp, 2007), support (emotional and psychological)(e.g., Chao et al., 1992; Cullen & Luna, 1993; Crisp & Cruz, 2010; Kram & Isabella, 1985; Nora & Crisp, 2007), and direct guidance with professional and career development (e.g., Brown et al., 1999; Campbell & Campbell, 1997; Chao et al. 1992; Crisp & Cruz, 2010; Nora & Crisp, 2007) have been well-evidenced since her work was published. Although emphasis on the growth and development of the mentee shapes the interactions, mentoring relationships are personal and reciprocal, often benefitting both participants (e.g., Crisp & Cruz, 2010; Healy & Welchert, 1990; Kram & Isabella, 1985; Nora & Crisp, 2007). Thus, mentoring is notably distinct from and extends beyond academic advising (Johnson, 2007; Johnson & Zlotnik, 2005).

Research on the impact of mentoring on college success reveals the relevance, utility, and buffering impact of this approach, whether established formally or informally. Mentoring relationships developed with college faculty are positively associated with student persistence and academic achievement (Crisp & Cruz, 2009; Terenzini et al.,1996). Terenzini and colleagues (1996) found that first-year college undergraduates who reported having a mentoring relationship were more likely to return to college for a second year than were students who were not mentored. In their 4.5-year longitudinal study of academic persistence among Latino/a undergraduates, Bordes-Edgar and colleagues (2011) found that having a mentor was one of the key factors that lead to academic persistence. Some research also points to stronger academic performance among faculty-mentored students, including higher grade point averages (GPA), than among students who did not have mentors (e.g., Campbell & Campbell, 1997; Crisp & Cruz, 2009). Although Campbell and Campbell's (2007)10-year follow-up study indicated that GPA by graduation did not differ significantly for mentored students, those students with faculty mentors were more likely to remain on campus to pursue graduate studies and advanced training than were their non-mentored counterparts. Furthermore, students matched with mentors of the same ethnicity demonstrated higher graduation rates, higher cumulative GPA, and increased likelihood of engaging in graduate-level education (Campbell & Campbell, 2007). Mentored students perceive mentoring relationships as foundational to post-graduation success. Schlosser and colleagues (2003) identified college mentoring as an important contributor to success beyond schooling in that students reported that mentors helped them prepare for professional achievement and success by assisting them in developing relevant professional skills and behaviors.

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Mentoring and other relationships providing social support have been associated with decreased stress and psychological distress, including depression, for college students (e.g., Hefner & Eisenberg, 2009; Morgan & Cotton, 2003; Wei, Russell, & Zakalik, 2005; Wright et al., 2013). For instance, Ruthig and colleagues' (2009) longitudinal exploration revealed that perceived social support was a predictor for lower levels of depressive symptoms in a sample of college students.

Given the positive influence mentors may have on the students with whom they work, mentors may have a distinct role in facilitating students' connections to the campus culture. Nora and Crisp (2007) suggested that the mentoring relationship should provide a space in which protégés or mentees feel culturally validated and emotionally supported. Findings from research with cultural minority student populations offer similarly positive outcomes. For racial and ethnic minority students, perceptions of being mentored were associated with cultural fit (Gloria et al., 2000), college adjustment (Santos & Reigada, 2002), and greater persistence to graduation (Bordes-Edgar et al., 2011). Specifically, the representativeness of faculty mentors with regard to racial/ethnic minority populations is associated with higher retention, higher cultural adjustment, and increased educational satisfaction for racial and ethnic minority students (e.g., Cole, 2008). Castellanos and colleagues (2016) noted, "It is faculty mentorship…that fosters a sense of validation" for students in relation to academic and professional outcomes (p. 83).

Research into varying mentor relationships suggest beneficial interaction across the spectrum. In a study of undergraduate students and mentoring relationships, Delgado-Guerrero (2016) found that, for participants with peer mentors, university comfort and cultural congruity were positively associated with educational self-efficacy.

For participants with staff mentors, university comfort and cultural congruity were associated with both self-efficacy and self-esteem. For participants with faculty mentors, university comfort shared a positive relation with self-esteem. Delgado-Guerrero concluded that, regardless of type of mentor, having a mentor had a positive impact on undergraduates. Similarly, findings from Southwell and colleagues' (2016) with student veterans exploration of mentoring relationships of student veterans suggested that visiting with advisors and faculty was positively associated with student veterans' and service members' expectations for completing their degrees and their perception of the university or college environment. Despite these positive findings, it may be more difficult for student veterans to develop mentoring relationships as recent research indicates student veterans are taking advantage of online education courses in lieu of on-the-ground coursework (e.g., Ford & Vignare, 2014; Lang et al., 2013). Based on the extensive literature supporting the roles of cultural congruity and mentoring on college and academic success, the current study examined the influence of cultural congruity and mentoring on veterans' college stress. Cultural congruity and mentoring were conceptualized as two components of the college environment.

Stress

College environment is related to the stress college students experience. In addition to believing that one fits on campus and in having one or more persons/mentors who are supportive of their education, many veterans have experienced situations and traumas that have led to posttraumatic stress symptomatology or physical injury that can interfere with their career goals and education. Furthermore, veterans may have doubts about their ability to handle the tasks of being a student again.

College stress. When veterans return to school, they may also experience a new set of stressors – those related to becoming and being a student. Adapting to a new educational environment can be a stressful process for college-goers (e.g., Towbes & Cohen, 1996), particularly student veterans who face distinct challenges as they transition to college and higher education (e.g., DiRamio et al., 2008; Ghosh & Fouad, 2016; Knapp, 2013; Radford, 2009). For example, difficulties with attention and concentration, memory, and other cognitive processes may impact veterans who have experienced a traumatic brain injury or are experiencing mental health concerns such as PTSS/PTSD or depression, sleep difficulties, chronic or persistent pain, alcohol or drug use, or stress in general (e.g., French et al., 2014; Hoge et al., 2009; Verfaellie et al., 2014).

The challenge of learning and recalling course material amidst such difficulties is significant (Zogas, 2017). In their qualitative exploration of student veterans' transitions from the armed services to the classroom, Ackerman and colleagues (2009) noted that difficulty with adjustment to formal classroom instruction was a consistent theme among participants. One student veteran noted, "Once I got back to school, it was like I know what I need to do and it is right in front of me, but I'm just not doing it. I don't know if it [is] because I am not as focused as I was before I left, or . . . I don't know" (p. 10). Another participant reported, "…but what made it hard was my attention span and my patience were very short, so sitting in class…became very hard to do" (Ackerman et al., 2009, p. 10). Such difficulties may contribute to challenges with preparation and engagement in academics for veterans. Other considerations, such as demographic differences (i.e., more likely to be older, to have family responsibilities, and to be reliant upon multiple sources of financial aid), complicate the transition to higher education

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(Knapp, 2013). When compared to non-military students, student veterans and service member students in one investigation demonstrated lower GPAs even after several confounding variables were controlled (Durdella & Kim, 2012), and Cook and Kim (2009) reported that one of the primary challenges identified by military and veteran students was degree completion. In addition to these transition challenges, student veterans also face the same college stressors civilian students encounter.

The college environment differs from the world of work in a variety of ways including the problems and situations met (Hirsch & Ellis, 1996) and resulting stressors. For example, evaluation and goal setting and striving, reflective of experiences of employed persons, differ in nature within a college space. College students encounter continuous evaluation from several "supervisors" (instructors) in the form of tests, quizzes, and papers that, depending upon on the course, may occur on a weekly basis, a situation uncommon for nonstudents (e.g., Ross, Niebling, & Heckert, 1999, Wright, 1964). Such evaluation is a major component of academic stress. Ragheb and McKinney (1993) defined perceived academic stress as "performing assignments under tight time and deadlines, having an unreasonable load of projects and exams such as having several assignments due at once, not completing academic assignments on time, expecting to be able to complete several tasks, and difficulty dealing with instructors" (p. 5, as cited in Rayle & Chung, 2009). The literature points to several potential sources of college or academic stress that support and expand this definition, including strong pressure to perform well, to earn high grades, and to earn a degree (e.g., Hirsch & Ellis, 1996) as well as the student's perception of a vast and necessary knowledge base and of limited and insufficient time to master it (Carveth et al., 1996), excessive workload and

homework, confusing or unclear assignments, and uncomfortable classroom

environments (e.g., Kohn & Frazer, 1986). Sgan-Cohen and Lowental (1988) also noted

time pressures as potential sources of stress for students, and Cheng and colleagues

(1993) reported that competition in classes and course-related stress were also challenges

in the academic environment.

College stress, however, is not limited to academics. Financial challenges,

scholarship requirements, and pressures related to family may affect the experience of

stress for students (Cheng et al., 1993). Furthermore, other potential stressors may

become magnified or shift in form when in the college environment. Wright (1967)

highlighted the potential stress that may arise from eating and sleeping habits,

relationships with family and friends, and loneliness for some students. Relations with

faculty members may also factor into the experience of stress (Sgan-Cohen & Lowental,

1988). Ross and colleagues (1999) assessed major sources of stress among 100

university students, noting that daily difficulties or hassles such as changes in eating and

sleeping habits, vacations or breaks, increased workload, and new responsibilities were

more commonly reported than were major life events. As Misra and Castillo (2004)

noted, other research identified studying for and taking exams, learning considerable

content in a brief timeframe, and grade competition (Abouserie, 1994; Kohn & Frazer,

1986) as major stressors.

The negative impact of stress on college students is well-documented (e.g.,

Edwards et al., 2001; Misra et al., 2000; Reifman & Dunkel-Schetter, 1990; Zaleski,

Levey-Thors, & Schiaffino, 1999). Academic stress specifically has been found to be a

critical factor in college student adjustment (e.g., Gall, Evans, & Bellerose, 2000;

Mallinckrodt, 1988). In some studies, college-related stress was inversely related to academic performance among traditional undergraduates (Akgun & Ciarrochi, 2003; Felsten & Wilcox, 1992; Pritchard & Wilson, 2003; Russell & Petrie, 1992), particularly for first-year (Struthers, Perry, & Menec, 2000) and immigrant college students (Buddington, 2002). Its negative impact on persistence has been identified among college freshman (e.g., Perrine, 1998; Zhang & RiCharde, 1998) and older nontraditional students (Chartrand, 1992). Data from a nationwide college student health assessment conducted by the American College Health Association (ACHA, 2019) indicated that more than 32% of college students demonstrated poor or decreased academic performance in relation to increased experiences of stress. Roughly one-third of the 20,000 surveyed students reported that stress negatively affected their academic performance, resulting in receiving in their receiving lower exam grades (21%), lower course grades (8.7%), incomplete courses or dropped courses (1.9%), or significant interruption to their thesis (2.5%). Approximately 45% reported experiencing "more than average" stress during the previous 12 months, and an additional 13.4% identified experiencing "tremendous" stress during that time period (ACHA, 2019).

Although some scholarly work has failed to link stress and academic performance outcomes (e.g., Petrie & Stoever, 1997; Sandler, 2000), most empirical data support an association between the two. During times of high academic stress, Weidner and colleagues (1996) found that college students exhibited significant decreases in positive health behaviors, and Dixon and Robinson Kurpius (2008) found that college stress significantly predicted depression among undergraduates. In addition to the typical college stress that college students may encounter, veterans may struggle with lingering

stress symptoms related to military service experiences as they move through their higher education. For instance, exposure to traumatic events during military service may make service members more likely to experience mental health conditions later in life (Lee, Aldwin, Choun, & Spiro, 2019). In describing how health and stress may influence academic functioning of student veterans specifically, Zogas (2017) wrote,

> "It is practically impossible to draw meaningful boundaries between mental health concerns, physical health concerns, and social concerns as they manifest in veterans' lives. Consider, for instance, a veteran who is having trouble finding work and enrolls in school. Perhaps back pain makes it difficult to sit for hours in a college classroom, in the company of classmates who are a decade younger, and perhaps exhaustion from insomnia makes it difficult to study effectively. Are these medical problems? Are they combat-related problems? The more holistic idea of "transition" is useful for thinking about veterans with problems like this" (p. 8).

Romano (1992) asserted that it is the interaction between stressors and an individual's perception of those stressors that results in stress. The amount of stress experienced may be contingent upon the coping resources of the student and how effective he or she is coping with situations of stress (e.g., D'Zurilla & Sheedy, 1991). In the current study, perceptions of how stressful college-related tasks are and factors related to coping with perceived stress were investigated. In addition to college stress, sources of stress related to veterans' distinct military experiences likely contribute to veterans' ability to cope during transitions. Given veterans' potential for exposure to stressful and traumatic events (e.g., combat) during military service, post-traumatic stress symptoms specifically warrant study.

Post-traumatic stress symptomatology. Veterans' college transition process may be influenced by military-related mental health concerns, including post-traumatic stress. More broadly, the significance and extent of mental health problems among

veterans have been of major interest in the public and research realms (e.g., Hoge et al., 2004; Milliken et al., 2007). Until recently, empirical literature related to transition and readjustment mental health problems of U.S. veterans was culled primarily from veterans of peacekeeping operations and Vietnam and Gulf War veterans. However, researchers have found that service members and veterans are more likely to endorse experiencing more psychosocial distress when transitioning to civilian life than when initially leaving a combat zone (e.g., Demers, 2011). For example, in a study of veterans transitioning to civilian life, Morin (2011) found that veterans who reported struggling with post-traumatic stress were significantly less likely to report experiencing an "easy" re-entry compared to veterans who did not experience symptoms of post-traumatic stress (34% versus 82%).

Post-traumatic stress disorder (PTSD) is classified as a Trauma and Stressor-Related Disorder that can occur after directly or indirectly experiencing or witnessing threatened or actual death, serious injury, or sexual violence (American Psychiatric Association, 2013). Some symptoms related to PTSD diagnosis include persistent re-experiencing of the traumatic event (e.g., intrusive thoughts, nightmares), avoidance of reminders, thoughts, or feelings related to the trauma, experiencing negative thoughts or feelings (e.g., feeling isolated) and hyperarousal and reactivity following the trauma (e.g., difficulty sleeping or concentrating, hypervigilance) (American Psychiatric Association, 2013). Symptoms associated with PTSD represent multiple dimensions of distress, resulting in significant variability in presentation across individuals (Armour et al., 2016; Stein, Wilmot, & Solomon, 2016). In recent literature, the presence of PTSD symptomatology that does not meet criteria for a diagnosis has been referred to as post-

traumatic stress symptomatology (PTSS) (e.g., Hoge et al., 2007; Hourani et al., 2012; Pietrzak et al., 2010).

Rates of PTSD have been calculated in a variety of ways, resulting in a wide range of estimated incidence. In one study, an estimated 30% of post-9/11 veterans who used VA health care between 2009 and 2011 were diagnosed with PTSD (Cifu et al., 2013). The National Council for Behavioral Health (NCBH, 2012) projected that in 2014, almost one-third (30.1%) of Iraq and Afghanistan veterans, equating to roughly 730,000 veterans, would have a mental health condition requiring treatment. In these projections, PTSD and comorbid PTSD and major depressive disorder (MDD) were expected to impact 13.8% of Iraq and Afghanistan veterans. In comparison, approximately 6.8% of the general U.S. adult population was estimated to experience PTSD during their lifetime (e.g., Kessler et al., 2005).

The impact of PTSS and PTSD is significant and problematic for overall functioning. PTSS is associated with impairment in work and activities of daily living (Hoge et al., 2007; Hourani et al., 2012; Pietrzak et al., 2010; Rona et al., 2009; Stein et al., 2000). For veterans, PTSD was associated with poorer mental and physical health (e.g., Hutchinson & Banks-Williams, 2006; MacLean & Elder, 2007; Ren, Skinner, & Lee, 1999). Challenges related to PTSS and PTSD for student veterans mirror outcomes reported for all veterans. In Rudd et al.'s (2011) investigation of the military-affiliated students' mental health, the "average participant" was found to demonstrate moderate symptom levels of anxiety and depression and to meet the criteria for a PTSD diagnosis. Mean scores reported for anxiety, depression, suicidality, combat exposure, and PTSD rose to clinical levels, per the cutoff guidelines of the assessment instruments. Almost

half (46%) of the sample reported having thought about suicide, with one in five participants reporting having a plan. PTSD was strongly linked with suicide attempts, and the severity of symptoms moderated the association between depression and suicidality (Rudd et al., 2011). Overall, trauma-exposed students, including student service members and veterans, were more likely to endorse higher levels of stress, experience symptoms of depression and anxiety, and have been diagnosed with a mental health condition (Artime et al., 2019). However, service members and veterans who had been deployed with no recent experience of interpersonal violence were less likely than students with no trauma exposure to experience mental health symptoms, which may reflect a "learned resiliency" (Artime et al., 2019, p. 279).

Psychological problems and poor neurocognitive performance may also interfere with academic success, which is akin to a student's occupational functioning. In an exploratory study of neurobehavioral symptoms among student veterans, symptoms of PTSD and of traumatic brain injury (TBI) were both moderately associated with lower academic self-efficacy, which was the strongest predictor of GPA in this study (Ness & Vroman, 2014). GPA was not significantly associated with PTSD or traumatic brain injury (TBI) symptoms in sample described as "high achieving" by authors (Ness & Vroman, 2014). Further, in a qualitative analysis of service member college students experiencing neurobehavioral symptoms, participants did not perceive their symptoms as negatively impacting their academic success (Ness, Rocke, Harrist, & Vroman, 2014).

The growing body of research into student veterans' experiences suggests that psychological symptoms interfere with distinct student veteran experiences, including transition to college and social and cultural connectedness on campus (e.g., Barry et al.,

2014). Weber's (2012) exploration with student veterans revealed an association between PTSD and reports of poorer social support and lower cultural congruity, suggesting that PTSD symptoms and campus connections may be important factors related to veterans' campus experiences. Barry et al.'s (2014) systematic review of the literature on student service members and veterans in higher education noted their significantly higher rates of health risk behaviors, psychological symptoms, and challenges to adjustment to college as compared to those of non-military students. The authors described combat-related trauma as an important contributor to the differences between military and non-military students. For example, binge-drinking has been positively associated with PTSD symptoms for military students but not for non-military students (Barry et al., 2012; Widome et al., 2011). Artime and colleagues (2019) found that students exposed to trauma were more likely to report psychological concerns interfering with their academic performance. Given the evidence of negative physical, psychological, and social experiences among student veterans when PTSS is present, the complicating influence of this factor for college functioning is noteworthy. In addition to investigation of experienced post-traumatic stress symptoms, the current study examined the influence of college stress on post-traumatic stress symptoms for student veterans. Considering the pervasive impact of post-traumatic stress symptoms on overall functioning, it is important to explore protective factors that may equip veterans transitioning through college to cope effectively with stressors. Resilience in the form of sense of coherence is one personal resource that may help veterans successfully navigate psychosocial difficulties.

Sense of Coherence

As veterans move through the college transition process, personal resources including sense of coherence, a factor of resilience, may ease the influence of stress on college experiences such as career decision-making. Grounded in salutogenesis, the concept of sense of coherence (SOC) is a bridge between personal health and the external factors that contribute to overall well-being. Antonovsky (1987) described SOC as a global construct that influences individual understanding and appraisal of the surrounding world, particularly events that occur. Specifically, SOC is the "extent to which one has pervasive, enduring, and dynamic feelings of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can be reasonably expected" (Antonovsky, 1979, p. 123). Appraisals of events and stressors may be salutary/positive, neutral, or negative (Antonovsky, 1993). Someone with high SOC is likely to believe that issues and events will work out well (Antonovsky, 1979), whereas someone with low SOC may become "stuck" in their appraisal of difficulties as burdens and may focus on potential negative outcomes (Korotkov, 1998). Antonovsky (1987) hypothesized that a strong SOC would offer an increased ability to cope with environmental stressors and challenges.

Three interrelated concepts comprise the SOC construct--comprehensibility, manageability, and meaningfulness. Vossler (2012) described comprehensibility as "the belief that internal and external environments are structured, predictable, and explicable and that individuals can make sense of events in one's life" (Osborne, 2016, p. 13). Manageability refers to a belief that one has the resources necessary to meet the demands of the environment. Further, the concept speaks to confidence in one's ability to cope

with stressors experienced (Osborne, 2016; Vossler, 2012). Meaningfulness, a "belief that demands in the world are worthy of investment and may be viewed as a challenge instead of a burden" (Osborne, 2016, p. 13), is theorized to have the potential to facilitate an individual putting forth the effort needed to cope effectively with difficult or challenging events and situations (Korotkov, 1998).

Along with factors such as hardiness, social support, optimism, and meaning or purpose in life, SOC was discussed by Helmreich and colleagues (2017) as a modifiable and well-evidenced psychosocial resilience factor (e.g., Allart et al., 2013; Al-Yagon & Margalit, 2009; Bjørkløf et al., 2013; Cohen & Savaya, 2003; Eriksson & Lindström, 2006; Forstmeier et al., 2009; Frommberger et al., 1999; Peter et al., 2012; Pragodpol & Ryan, 2013; Schnyder et al., 2008; Van Kessel, 2013; Van Leeuwen et al., 2012; Winger, Adams, & Mosher, 2016). As a construct, resilience in the literature for veterans has been studied as a protective factor following military separation, a major transition process (e.g., Hourani et al., 2012; Pietrzak & Southwick, 2011). Resilient veterans were more likely to report higher levels of perceived control and purpose (Pietrzak & Southwick, 2011). Pre-separation resilience served a protective role for transitioning marines experiencing mental health concerns with functional impairment (i.e., being prevented from doing one's usual activities on at least one day in the past 30 days due to poor mental health) (Hourani et al., 2012). SOC is z strongly associated with resilience and hardiness, another protective factor documented (e.g., Almedom, 2005; Antonovsky, 1987; Sullivan, 1993). Sullivan (1993) suggested that SOC is a more inclusive resilience factor, noting that the construct of hardiness can be accounted for by the meaningfulness and manageability concepts of SOC. In part due to its inclusiveness, Almedom (2005)

identified SOC as the preferred construct for exploring factors related to resilience and coping.

Although Antonovosky (1987) conceptualized SOC as fairly stable across the lifetime following its development in early childhood, some evidence indicates only moderate stability. For example, Kivimaki and colleagues (2002) identified decreases in SOC for male participants following experiences of violence and financial problems. However, in Schnyder and colleagues' (2000) exploration of SOC among accident victims, the significant decreases in SOC experienced within the first six months after the accidents occurred stabilized in the second six months. Findings of several studies suggested a relative stability of the construct by adolescence (e.g., Kroninger-Jungaberle & Grevenstein, 2013; Moksnes et al., 2013), though others (e.g., Feldt et al., 2003) have found no impact of age on the stability, level, or mean change in sense of coherence. Noting the high test-retest reliability of measures of SOC as support for the trait-like nature of the construct, Schnyder and colleagues (2000) suggested that SOC should be considered stable although it may be influenced by experienced traumatic events. Kenne Sarenmalm and colleagues (2013) suggested that SOC may develop over the lifetime as all experiences continue to influence associated beliefs.

Higher SOC has been linked to greater well-being (Chamberlain et al., 1992; Nasermoadeli et al., 2003; Pallant & Lae, 2002; Ryland & Greenfield, 1991; Wissing & van Eeden, 2002), to general psychological well-being (Wiesmann & Hannich, 2013; Zeidner & Aharoni-David, 2015), to general life satisfaction (Diraz, Ortlepp, & Greyling, 2003; Lustig et al., 2000; Wiesmann & Hannich, 2013), to self-esteem (Söderberg, Lundman, & Norberg, 1997), and to satisfaction with health (Wiesmann & Hannich,

2013). In their exploration of SOC in relation to social support, self-esteem, physical health, and completion of daily activities, Wiesmann and Hannich (2013) identified SOC as a partial mediator of the relation between these constructs, referred to as resistance resources. Further, SOC fully moderated the association of social support and health satisfaction (Wiesmann & Hannich, 2013).

The role of SOC in coping spans a variety of stressful events and situations. The mediating effect of higher SOC on stress is well-evidenced (Albertsen et al., 2001; Cilliers, 2003; Diraz et al., 2003; Feldt, Kinnunen, & Mauno, 2000; Hedov et al., 2002; Hintermair, 2004; Höge & Bűssing, 2004; Kalimo et al., 2002). Individuals with higher SOC were more likely to report experiencing emotional calm and contentment (Johnson, 2004). Relatedly, Mlonzi and Strümpfer (1998) identified a strong negative correlation between SOC and anxiety. In studies with women, Kenne Sarenmalm and colleagues (2013) found that SOC was a significant predictor of distress, health status, and quality of life among women diagnosed with breast cancer, and Krantz and Östergren (2000) found that medium to high levels of SOC and social support weakened the relation between violence victimization and health symptoms among women who had experienced domestic violence. SOC's impact extends to youth as well [e.g., Aspers and colleagues' (2013) findings of a strong association between SOC and increase in perceived health quality among a group of adolescents with congenital heart disease]. Notably, Gana (2001) found that individuals reporting weaker SOC tended to be more vulnerable to experiencing stress. These studies demonstrate the important role SOC may play in buffering stress.

SOC and Mental Health. Negative outcomes associated with mental health issues are also buffered by higher levels of SOC. For example, in a sample of 155 adolescents aged 16 to 19 years, SOC was found to be inversely related to burnout, depression, and anxiety (Kroninger-Jungaberle & Grevenstein, 2013). In another study, SOC mediated the relation between mental health issues (e.g., anxiety, stress, worry) and general life satisfaction (Gana, 2001) and appeared to have a buffering effect. Among individuals diagnosed with a serious mental illness, Świtaj et al. (2013) found that SOC independently predicted the psychosocial impact of the associated stigma, and for individuals with psychotic disorders, SOC mediated the relationship between stigma and depression.

There is also significant evidence for the mitigating role of SOC for individuals impacted by PTSS and PTSD. SOC has also been found to act as a mediator in the relation of traumatic stress or trauma exposure and overall well-being (Ferrajao & Oliveira, 2016; Veronese & Alessandro, 2014; Zeidner & Aharoni-David, 2015). In addition, Dudek and Koniarek (2000) found an inverse relationship between SOC and levels of posttraumatic stress symptoms. Delgado (2007), who found a positive association between SOC and perceived quality of life among individuals with chronic PTSD, identified an inverse relation between reports of stress levels and SOC. Furthermore, SOC was a better predictor of severity of PTSD symptoms among paramedics than was resilience, as measured by the Resilience Scale (Streb, Haller, & Michael, 2014).

Reflective of its importance for coping with significant psychological, health, and social stressors, SOC provides a means for individuals to experience higher levels of

well-being and life satisfaction in the face of psychosocial difficulties. Therefore, it is important to explore the role of SOC on career-related decisions.

SOC and Career-Decision Making. Researched extensively in relation to health, SOC has also become of interest to career and vocational scholars (e.g., Höge & Bűssing, 2004; Lustig & Strauser, 2002). Similar to findings about other resilience and career-related behaviors and beliefs, individuals with high SOC demonstrate fewer problematic or negative outcomes related to careers (e.g., Seo, 2010; Strauser & Lustig, 2003). Employing Hershenson's model of work adjustment, Strauser and Lustig (2003) identified several associations between SOC and work-related competencies, including more developed work personalities, better coworker relationships, better adaptability to work roles, and better ability to engage in appropriate responses to work authority figures. These results suggest that SOC plays a role in one's ability to adapt to new responsibilities, rules, and roles at work as well as to make good judgments in this environment (Strauser & Lustig, 2003).

Although research is limited in this realm, findings depict the utility and importance of a strong SOC, particularly when poor mental health, trauma, and other stressors are present. As discussed by Austin and colleagues (2010), high SOC is inversely related to factors such as anxiety (Edwards & Besseling, 2001; Geyer, 1997), depression (Carstens & Spangenberg, 1997; Edwards & Besseling, 2001; Geyer, 1997), and psychopathology (Bengtsson-Tops & Hansson, 2001; Petri & Brook, 1992), as well as to personality factors such as neuroticism (Larsson & Kallenberg, 1996; Strümpfer, Gouws, & Viviers, 1998) and cognitive difficulties such as dysfunctional thinking

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(Karlson et al., 2000). All of these factors have the potential to impact negatively an individual's appraisal of career-related issues.

There is some evidence that SOC's mitigating role extends to functioning in career environments. For example, Osborne (2016) found that a stronger SOC mediated the relationship between PTSS and work role functioning among veterans, indicating a possible buffering of the effects of the stress symptoms on functioning in work. More investigation is needed to provide a comprehensive understanding of the role SOC plays in work and career-related areas. However, Osborne's findings indicate promising directions for development of SOC as a means for coping with work- and career-related difficulties.

In light of previous research, cultivating high SOC may facilitate development of behaviors and strategies that mitigate the impact of stressors on career decision-making. Austin and colleagues (2010) investigated the link between SOC and negative career thoughts among non-college-based unemployed adults and the ability of SOC and negative career thoughts to predict career decision status. Their findings revealed a strong, inverse relationship between SOC and negative career thinking. Notably, although SOC and negative career thoughts together accounted for 15% of the variance of career decidedness, these two factors accounted for 38% of the variance in decisiveness. Respondents who indicated higher SOC endorsed lower levels of dysfunctional career thinking, suggesting less overall dysfunction in relation to career decisions. Further, high SOC was also associated with less career decision confusion, less anxiety related to the career choice, and less conflict with significant others (Austin et al., 2010). Although their work confirmed other research regarding the inverse relation

between career decidedness and negative career thoughts (e.g., Gordon, 1998; Sampson et al., 2004; Saunders et al., 2000), Austin and colleagues (2010) reported that negative career thoughts did not predict decidedness in their sample, an inconsistency that may be related to sample differences and warrants additional research. They suggested that, "higher levels of SOC [may] increase the resoluteness and independence of the individuals' choice. Decisiveness may allow an individual to spend less time and fewer emotional resources when making a career decision" (p. 72).

Although Lustig and Strauser (2002) found that participants with higher levels of SOC reported higher levels of negative career thinking, which contradicts other literature, they also noted that SOC accounted for significant variance in several variables related to negative career thinking. These variables included career decision-making confusion, anxiety about commitment to a career decision, and conflict with external influences like familial pressures and relationships. Research with special populations also supports SOC's association with fewer career decision-making difficulties. Among college students with learning, psychiatric, chronic health, and mobility, Seo (2010) found that higher SOC was associated with less overall career decision-making confusion, fewer dysfunctional career thoughts, and less generalized anxiety related to the outcome of career decision-making. In summary, evidence supports SOC's negative relation to stressors (e.g., negative career-thinking) that may influence career-related decision-making.

Summary and Purpose of Study

The increased presence of student veterans in higher education since the introduction of the Post-9/11 GI Bill in 2009 (e.g., Radford et al., 2016) signals a

burgeoning need for nuanced understanding of the influence of distinct characteristics and prior military experience on veterans' college experiences, including career decision-making. For all students, advancement through college, earning a degree, and establishing one's career post-graduation are milestones predicated on major and career decision-making. Career decision-making difficulties have been linked to anxiety, increased problem intensity, and psychosocial concerns among college students (Gaffner & Hazler, 2002; Salomone, 1982; Van Matre & Cooper, 1984, as cited in Steele & McDonald, 2008). Difficulties with career decision-making have other practical implications, including prolonging time to degree completion and raising out-of-pocket fees for extending college study beyond the time limit of financial aid providers (McMenamin & Kurzynski, 2016). Moreover, career decision-making difficulties overlap with factors contributing to college stress (e.g., financing education), which has been negatively linked to academic performance, college persistence, positive health behaviors, and psychological well-being among college students (e.g., ACHA, 2019; Akgun & Ciarrochi, 2003; Chartrand, 1992; Dixon & Robinson Kurpius, 2008; Felsten & Wilcox, 1992; Gall, Evans, & Bellerose, 2000; Mallinckrodt, 1988; Pritchard & Wilson, 2003; Russell & Petrie, 1992). This research suggests addressing college stress and career decision-making difficulties may be important for college success.

In addition to stressors experienced by all college students, student veterans present to the college environment with unique characteristics and military history. As a group, student veterans are typically older, more likely to be managing work and familial responsibilities during college, and less likely to be engaged in college-related activities and socializing outside of the classroom than are their non-military college peers (Kim &

Cole, 2013; Molina & Morse, 2015; SVA, 2017). The differences between military

environments (hierarchical, regimented, interdependent) and college environments

(relatively unstructured, prizes creativity and independent thinking, self-regulation

necessary) can complicate the college transition process for veterans (e.g., DiRamio &

Jarvis, 2011; Hammond, 2015; Jones, 2013; Livingston et al., 2011; Rumann & Hamrick,

2010).

Veterans may also feel disconnected from non-military college peers and staff

(e.g., Hammond 2015; Smith & True, 2014; Wheeler, 2012). Difficulties with cultural fit

(e.g., McAndrew et al., 2019; Weber, 2012) and connecting to college peers and staff

(e.g., Hammond, 2015; Smith & True, 2014) may impact veterans' ability to cope with

the college transition above and beyond the negative influence of college stress.

Furthermore, the potential for exposure to traumatic events during military service (i.e.,

combat) suggests some student veterans may also experience lingering mental health

concerns such as post-traumatic stress symptoms (Lee et al., 2019) while moving through

the college transition. Prior research linked post-traumatic stress to poor college

outcomes for veterans, including lower academic self-efficacy (Ness & Vroman, 2014),

academic performance (Artime et al., 2019), college adjustment (Barry et al., 2014),

poorer social support, and lower cultural congruity (Weber, 2012). Thus, the influence of

unique characteristics and experiences of student veterans likely indicates a different

higher education experience than that of their non-military college peers, warranting

further study.

It is important to examine the protective factors that may mitigate the influence of

sources of stress on college connection and career decision-making. Sense of coherence,

a resilience factor, is a personal resource that may facilitate veterans' ability to cope with transition challenges. Specifically, the buffering effect of sense of coherence between stressors (mental health concerns, general stress) and aspects of well-being is well-documented (e.g., Ferrajao & Oliveira, 2016; Gana, 2001; Krantz & Östergren, 2000; Kroninger-Jungaberle & Grevenstein, 2013; Veronese & Alessandro, 2014; Zeidner & Aharoni-David, 2015). Prior research also reveals sense of coherence's association with fewer career decision-making difficulties (e.g., Austin et al, 2010; Seo, 2010). This research is promising for student veterans.

The purpose of the study was to explore the experiences of veterans in higher education through assessment of the influence of variables that may facilitate connection to college and protect against sources of stress as related to career decision-making. Specifically, variables examined included perceptions of the college environment (comprised of cultural congruity and mentoring), college stress, post-traumatic stress symptoms, sense of coherence, and career decision-making difficulties.

Research Questions and Hypotheses

Two primary research questions were addressed in this study. First, what are the interrelations among college environment (cultural congruity and mentoring), sense of coherence, post-traumatic stress symptomatology, college stress, and career decision making? Second, do variables that demonstrate a buffering or protective role in the literature (i.e., mentoring, cultural congruity, SOC) moderate the relation between college stress and career decision-making? See Figure 1 for diagram of proposed interrelations of study variables.
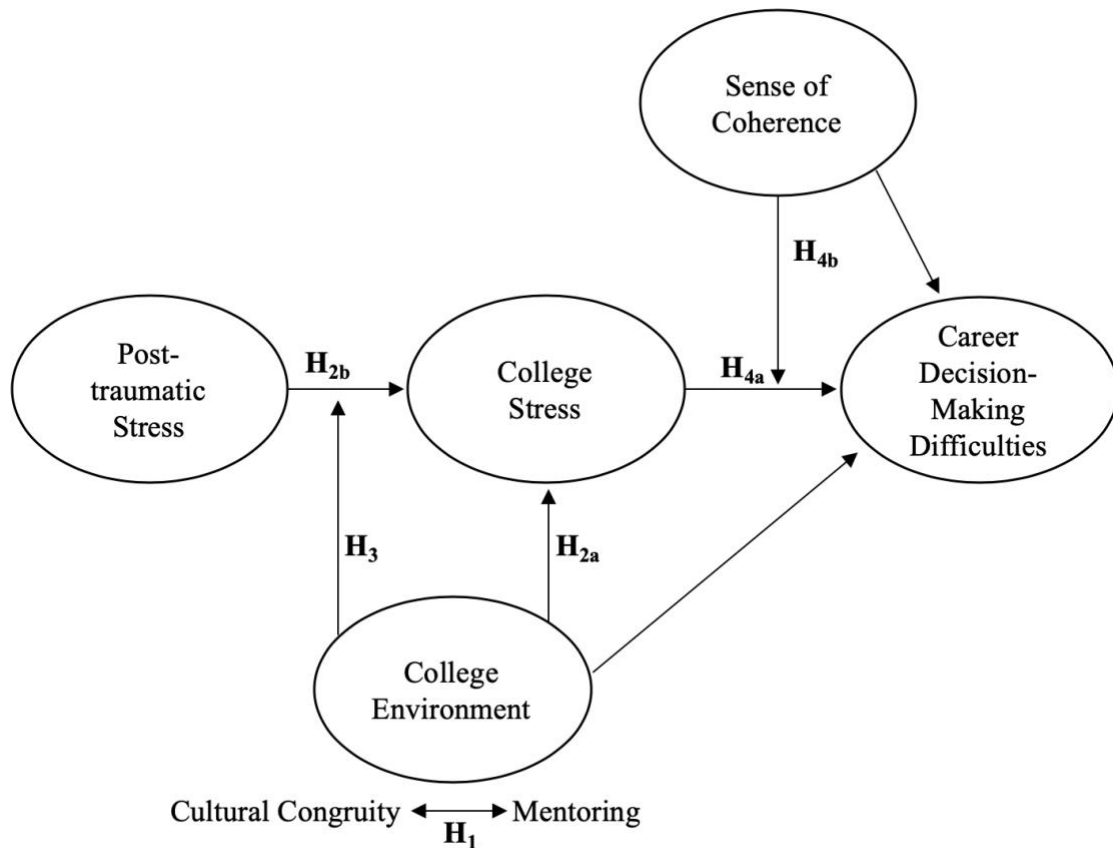
Figure 1. Diagram of proposed interrelations of study variables. This figure illustrates the hypothesized relations of the six variables of interest.

The following hypotheses were posed to address these questions:

H1: Mentoring will be positively related to cultural congruity for student veterans.

This hypothesis was based on findings by Castellanos and Gloria (2007), Gloria

and Robinson Kurpius (1996), and Tollinchi (2015).

H2$_a$: College environment, composed of cultural congruity and mentoring, will

negatively predict college stress for student veterans.

This prediction is consistent with research findings (e.g., Bordes-Edgar et al.,

2011; Castellanos & Gloria, 2007; Gloria & Robinson Kurpius, 1996).

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H2b: Post-traumatic stress symptomatology will positively predict college stress above and beyond college environment for student veterans.

This hypothesis was based on the research that has linked symptoms of post-traumatic stress to impairment in work performance and occupational functioning (e.g., Hoge et al., 2007; Rona et al., 2009; Stein et al., 2000; Vinokur et al., 2011) and to college stress (Cate et al., 2017; Weber, 2012).

H3: College environment will moderate the relation between post-traumatic stress symptomatology and college stress for student veterans.

PTSS have been linked with environment (i.e., poor social support and low cultural congruity) (Weber, 2012), while perceptions of environment have been positively associated with academic-related outcomes (i.e., intention to persist, persistence, educational self-efficacy) (e.g., Delgado-Guerrero, 2016; Southwell et al., 2016). Thus, the perceived environment was proposed to provide support to participants with PTSS, weakening its relation to college stress.

H4a: College stress will positively predict perceived career decision-making difficulties for student veterans.

Students may consider career decision-making an extension of their academic role and competency and may perceive more difficulties with the task and process. Career decision-making difficulties have been associated with lack of mentoring (e.g., lack of information difficulties; Lease, 2004) and cultural value conflicts (Leung et al., 2011), components that were expected to predict college stress in this study, as well as to psychological distress (Fouad et al., 2006), which has been linked with poor coping with

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academic stressors and lower levels of academic achievement (e.g., Vaez & Laflamme, 2008).

H4b: Sense of coherence (SOC) will moderate the relation between college stress and perceived career decision-making difficulties in that a greater sense of coherence would weaken the relationship between college stress and perceived career decision-making difficulties for student veterans.

As a higher SOC reflects one's confidence that the world, internal and external, is predictable, manageable, and will work out well (Antonovsky, 1979), choosing a career may seem less daunting than it seems for individuals with lower SOC. Thus, higher SOC may weaken the predicted connection between college stress and perceived difficulties with career decision-making. SOC is negatively associated with and predictive of negative career thinking, a significant contributor to reported career decision-making difficulties, and positively linked to career decidedness and decisiveness (e.g., Austin et al., 2010; Kleiman et al., 2004; Lustig & Strauser, 2002; Osborn, 1998). People who are more decided are less likely to report career decision-making confusion or anxiety (Austin et al., 2010).

CHAPTER 2

METHOD

Recruitment

Following approval by Arizona State University's Institutional Review Board (see Appendix A), recruitment of participants began in June 2018. Upon receipt of a research grant from the Graduate Student Professional Organization (GPSA) in October 2018 (see Appendix B), recruitment emails and flyers were amended to reflect an opportunity to win $25 Amazon.com gift cards (see Appendix C, Appendix D). Recruitment efforts occurred during late Fall semester 2018, Spring semester 2019, and November 2019. Service members with prior military experience and veterans enrolled at colleges and universities across the United States were sought to complete an online anonymous survey. Student and faculty leaders at student veteran clubs and advising staff at Veterans' Services offices at institutions of higher education were emailed requests for assistance in disseminating a study recruitment email to currently enrolled students. Additionally, request for participation in the study was disseminated via social media (Facebook.com advertisements in March and April 2019 and Reddit.com forum posts appealing to service members in April 2019), where a weblink to the online study was posted. Participants attending Arizona State University (ASU) were also recruited through extra credit opportunity postings for undergraduate psychology courses.

Prior to collecting data, an estimate of the sample size necessary to detect statistically significant differences reflective of the student veteran population was performed using the G*Power program. The a priori power analysis indicated need for 146 participants to reach 80% power for detecting a medium sized effect when

employing the traditional .05 criterion of statistical significance, given a moderate effect size of .15, in social science literature.

Sample

Initially, data from 375 participants were gathered online. Of recorded entries, 44 cases were removed as they did not include data beyond indication of consent to take the survey. To decrease incidence of random responding, one survey measure [Career Decision-Making Difficulties Questionnaire (CDDQ; Gati et al., 1996)] included two embedded validity checks. Free-entry responses throughout the survey (e.g., demographic variables, mentoring, choice of major/career, years of schooling), some of which matched to multiple choice items, facilitated review of cases for validity. One participant's data were omitted from analyses due to multiple extreme responses (e.g., reporting age as 3443 years) and failing the validity checks. Data from the remaining 330 participants (232 males, 95 females, 3 non-binary) were reviewed for survey completion. An additional 91 respondents had to be omitted from the analyses as data entries were largely unfinished (i.e., drop-out during the demographic questionnaire).

The final study sample consisted of 239 (171 male, 67 female, 1 nonbinary) student veterans from colleges and universities across the U.S. and who ranged in age from 18 to 65 years ($M = 31.10$, $SD = 8.57$). The majority of participants ($n = 148$, 61.7%) self-identified as European American/Caucasian/White, whereas 14.6% ($n = 35$) self-identified as Hispanic American/Latino, 8.3% ($n = 20$) Asian American/Pacific Islander, 4.2% ($n = 10$) African American/Black, 5.0% ($n = 12$) multiethnic, and 3.3% ($n = 8$) Native American/Alaskan Native. Five participants (2.1%) self-identified racial/ethnic background as "other." Approximately 75% reported that they were married

(n = 97; 40.6%) or single/never married (n = 82; 34.3%). The remaining participants indicated that they were in a relationship/not living together (n = 23; 9.6%), single/no longer married (n = 20; 8.4%), in a relationship/living together (n = 12; 5.0%), widowed (n = 3; 1.3%), or separated (n = 2; 0.8%). Most participants lived off campus (n = 210; 87.9%), with roommates (n = 46; 19.2%), family (n = 30; 12.5%), significant other (n = 114; 47.5%), their child(ren) (n = 64; 26.7%), or alone (n = 41; 17.1%). Only 29 (12.1%) reported living on campus.

The participants, 80.4% (n = 193) of whom were enrolled full-time and 16.3% (n = 39) part-time, reported grade point averages (GPA) ranging from 1.90 to 4.10 (M = 3.39; SD = 0.49). While 22.9% (n = 55) were graduate students, almost a quarter (n = 57; 23.8%) of participants reported that they were undergraduate juniors, 21.3% (n = 51) undergraduate sophomores, 19.2% (n = 46) undergraduate seniors, and 10.4% (n = 25) undergraduate freshmen. Notably, 8.0% (n = 19) of participants reported that they had graduated within the past two years. The average participant who intended to pursue a graduate degree (n = 152; 63.6.%) had already declared their major (n =227; 94.6%) in a field unlike the work they had done in the military (n =165; 69.0%), although most (n =149; 62.3%) noted that the military helped to prepare them for their intended career. On a rating scale of 1 (Low) to 9 (High), almost half (n = 110; 45.8%) of respondents indicated they experienced low to moderate difficulty in making a career decision, and 47% (n = 113) stated they had experienced moderate to high difficulty selecting a career. Most participants (n = 153, 67.9%) were receiving GI benefits to fund their education and expressed moderate to a great deal of concern about financing their studies (n = 127;

53.1%). See Tables 1 – 2 for additional education demographic information, including

number of years of education.

Table 1.

Participant Education Intentions and Years of Education

Variable	*N*	%
Intend to…		
Transfer to another college	31	12.9
Drop out temporarily	23	9.6
Drop out permanently	2	.8
Obtain less than a bachelor's degree	10	4.2
Obtain bachelor's degree	78	32.5
Obtain master's degree	96	40.0
Obtain professional degree	56	23.3
Number of Years of Education*		
1 (<2) years	14	5.8
2 (<3) years	33	13.7
3 (<4) years	35	14.6
4 (<5) years	35	14.6
5 (<6) years	15	6.2
6 (<7) years	14	5.8
7 (<8) years	5	2.1
8 (<9) years	76	31.6

Note. *Education was not specified as beyond high school. Some participants may have reported overall educational attainment. Maximum years reported: 21 years.

Table 2.

Participant Education Demographics

Variable	Yes		No	
	N	%	*N*	%
Declared major	227	94.6	11	4.6
Intended career/major similar to military work	74	30.8	165	68.8
Military helped prepare for career of interest	149	62.1	90	37.5
First person in family to pursue higher education	90	37.5	148	61.7
Receiving GI education benefits	163	67.9	75	31.3

With regard to military service, 39.6% (*n* = 95) of the surveyed veterans served in the Army, 19.2% (*n* = 46) in the Marine Corps, 18.8% (*n* = 45) in the Air Force , 17.9% (*n* = 43) in the Navy, and 1.3% (*n* = 3) in the Coast Guard. Almost half (*n* = 116, 48.4%) of participants had been deployed one to two times, 14.2% (*n* = 34) had served in three or more deployments, and 30.8% (*n* = 74) had never been deployed. Mean number of deployments was 1.51 times (*SD* = 2.17). The majority of these veterans had not re-enlisted in the military (*n* = 189; 78.8%), though 18.8% (*n* = 45) reported re-enlisting, primarily as Reservists (*n* = 41; 91.1% of re-enlisted participants). During their service, they were wounded, injured, assaulted, or hurt (*n* = 63; 26.3%), sustained a traumatic brain injury (TBI) (*n* = 24; 10.7%), and were exposed to chemical, biological, and radiological warfare agents *(n* = 28; 11.7%). Almost half (*n* = 114; 48.8%) currently received disability from the VA Regional Office for a physical injury and/or mental

health condition, and a majority ($n = 141$; 61.7%) had sought treatment at a VA Medical Center. Additionally, over half reported utilizing veteran and military-affiliated student services through their higher education institution "a lot" ($n = 46$; 19.2%), "a great deal" ($n = 43$; 17.9%), or "a moderate amount" ($n = 27$; 18.2%). Only about a fifth of these veterans reported using services "not at all" ($n = 17$; 11.5%) or "a little" ($n = 15$; 10.1%). Table 3 provides additional information about medical and mental health considerations as related to military service.

Sense of Coherence Sub-sample. Due to incomplete survey data following technical difficulties with online presentation of the survey, only 84 participants (56 male, 27 female, 1 nonbinary) accessed and completed the Sense of Coherence scale. Of these, 68 respondents (45 male, 22 female, 1 nonbinary) also fully completed the Career Decision-Making Difficulties scale, essential for analysis of study hypothesis 4. Thus, analysis for hypothesis 4 draws from this sub-sample, which ranged in age from 18 to 56 years ($M = 30.87$, $SD = 8.9$). The majority ($n = 38$, 55%). of participants reported an age of 29 years or younger. Most participants self-identified as European American/Caucasian/White ($n = 41$; 60.3%), followed by Hispanic American/Latino ($n = 7$; 10.3%), Asian American/Pacific Islander ($n = 5$; 7.4%), other ($n = 5$, 7.4%), multiethnic ($n = 4$;6.3%), African American/Black ($n = 3$; 4.4%), and Native American/Alaskan Native ($n = 3$; 4.4%).

Table 3.

Medical and Mental Health Military Impact

Variable	Yes		No	
	N	*%*	*N*	*%*
During deployment, were you…				
Wounded, injured, assaulted, hurt	63	26.3	161	67.1
Impacted by traumatic brain injury (TBI)	24	10.7	200	89.3
Exposed to chemical, biological,	28	11.7	195	81.3
radiological warfare agents				
Are you service connected for…				
Mental health	80	33.3	151	62.9
Physical injury	111	48.1	120	51.9
Currently receive disability for…				
Medical issue	53	22.1		
Mental health issue	11	4.6		
Both medical and mental health issue(s)	53	22.1		
Not at this time but recently applied,	17	7.1		
awaiting notification				
Not receiving disability	99	41.3		
Currently experience pain from injury/ies	91	37.9	56	23.3
incurred during service				
Sought treatment at VA Medical Center for…				
Medical issue	46	22.1		
Mental health issue	11	4.6		
Medical and mental health	84	35.0		
No treatment sought	91	37.9		

Measures

After reviewing an online informed consent (see Appendix E), participants'
responses were collected via an online survey composed of a demographic questionnaire
(see Appendix F) and five instruments. Participants provided demographic information
in addition to responses to questions regarding military service, health and injury, and
major and career intentions. Five instruments, assessing career decision-making
difficulties [Career Decision-Making Difficulties Questionnaire (CDDQ; Gati et al.,
1996)], cultural congruity [Cultural Congruity Scale (CCS; Gloria & Robinson Kurpius,
1996)], mentoring [Mentoring Scale (Gloria, 1993)], college stress [Daily Hassles Index
for College Stress (Schafer, 1987)], PTSD symptomatology [PTSD Checklist for DSM-5
(PCL-5; Weathers et al., 2013)], and sense of coherence [Sense of Coherence Scale
(SOC-13; Antonovsky, 1987)] were administered. Copies of the instruments and author
permissions for use, where applicable, are presented in Appendices G through M.

Demographic Questionnaire. Participants completed a demographic
questionnaire. Basic demographic questions included sex, age, racial/ethnic background,
current relationship status, number of dependents, current residence (e.g., on campus, off
campus with family), and work status. College-specific questions included year in
college, current enrollment status, college major, decision status (declared, undeclared,
exploratory/general studies), intended career or career field, current GPA, intentions of
transferring or dropping out, first-generation college student status, and how they were
funding college tuition and expenses (e.g., Post-9/11 GI Bill, loans, scholarships, work
study program). Information about military service and involvement was also gathered,
including their current military status, service branch, highest pay grade, number of times

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deployed, location and length of each deployment, occupational specialty during each deployment, and reason(s) for joining the military. Participants reported whether they had been wounded, injured, assaulted, or otherwise hurt during their deployment(s), had sustained a TBI while deployed, and/or were exposed to chemical, biological, or radiological warfare agents during their deployment(s). They also responded to items about drug, alcohol, and other substance consumption. Finally, participants reported on mentoring experiences at their college or university, why they chose to attend their chosen college or university, and their level of satisfaction with their college or university's services for student veterans.

Career Decision-Making Difficulties Questionnaire (CDDQ). To assess perceived difficulties with the career decision-making process, the short form of the Career Decision-Making Difficulties Questionnaire was administered (CDDQ; Gati et al., 1996; Gati & Saka, 2001). Grounded in decision-making and information-processing theories, the 34-item CDDQ includes 32 items representing decision difficulties from three overarching categories (readiness, lack of information, and inconsistent information) and two validity items. Sample items included, "I find it difficult to make a career decision because people who are important to me (such as parents or friends) do not agree with the career options I am considering and/or the career characteristics I desire" and "I find it difficult to make a career decision because I do not know what factors to take into consideration." Participants responded to each of the 32 items on a 9-point Likert-type scale ranging from 1 (*does not describe me*) to 9 (*describes me well*). Scale scores for the ten decision difficulties scales were created by averaging scores of the items comprising each scale. Scale scores were summed and averaged to create the

total score. Higher total scores reflected more perceived career decision-making difficulties.

In samples with American students, the CDDQ has demonstrated high internal consistency ranging from .94 to .96 (Gati, Krausz, & Ospiow, 1996; Mau, 2001; Osipow & Gati, 1998). Comparisons with the Career Decision Scale (CDS) and the Career Decision-Making Self-Efficacy Questionnaire (CDMSE) yielded convergent and discriminant validity (Lancaster, Rudolf, Perkins, & Paten, 1999; Osipow & Gati, 1998). Mau (2001) found that the structures of decision-making difficulties were similar to the proposed theoretical structure, echoing earlier findings (e.g., Gati, Saka, & Mayer, 2000). For this study sample, an internal consistency reliability of .96 was found for the CDDQ.

Cultural Congruity Scale (CCS). The 13-item Cultural Congruity Scale (CCS; Gloria & Robinson Kurpius, 1996) was used to measure students' perceptions of the cultural congruity or fit between their beliefs, values, and expectations for behavior and those on the college or university campus they attended. Participants were instructed to rate the extent to which they had experienced specified feelings or situations at their college or university on a 7-point Likert-type scale ranging from 1 (*not at all*) to 7 (*a great deal*). In a validation study of the 13-item scale with 454 Chicano/Chicana students at universities with predominantly White student populations, Gloria and Robinson Kurpius (1996) reported internal consistency reliability coefficients ranging from .81 to .89.

To ascertain cultural congruity/fit for student veterans, items on the CCS were reworded as necessary to reflect military-culture references, consistent with previous research with service member students and student veterans (Weber, 2012). Specifically,

references to ethnic background and family culture and values were changed to terms reflecting military background (i.e., "military," "military history," "military experiences," "military values," and "a service member or veteran"). For example, the statement, "I try not to show the parts of me that are 'ethnically' based," was reworded to read, "I try not to show parts of me that are 'military' based." Two items were deleted as they were originally developed to assess family background of the participant (i.e., item 8, "I can talk to my family about friends from school;" item 13, "I can talk to my family about my struggles and concerns at school"), and many veterans' families do not have military experience or a shared military history. In the resulting 11-item scale, items 1-4 and 6-9 were reverse scored prior to data analysis and a total score was derived by summing responses across the 11 items. In accordance with the original CCS, higher scores reflected greater congruity between military/veteran students' personal beliefs, values, expectations for behavior and those on the college campus. Weber (2012) reported a Cronbach's alpha of .88 for military students and veterans. In the current study, internal consistency reliability was also .88.

Mentoring Scale. To assess student perceptions of having a university mentor/role model, the six-item Mentoring Scale (Gloria, 1993) was administered. Five of the items ask about mentoring while on campus; respondents indicated *No one, One person,* or *Two or more persons* in response to these items, which were scored 0, 1, or 2, respectively. Sample items include "There is someone on campus whom I consider my mentor" and "There have been university professors/instructors/counselors who encouraged my educational efforts." The sixth and final item required respondents to indicate the extent to which this person (mentor/role model) had helped the respondent

adjust to college life on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*). For this study, the sixth item was not included in analyses as the overwhelming majority of participants (*n* = 225) did not answer this final question. Therefore, responses to the first five items were summed to create a mentoring score that ranged from 0 to 10. One possible explanation for lack of completion of the sixth item is that the item may not have readily applied to participants who reported having no mentor in the first five questions. Recent investigation with the six-item scale and Latina/o college students indicated internal reliability coefficients ranged from .76 (Bordes-Edgar et al., 2011) to .79 (Bordes & Arredondo, 2005). For the current sample, the Cronbach's alpha was .82 for the five items.

Daily Hassles Index for College Stress. Participants' perceived college-related stress was measured by the Daily Hassles Index for College Stress (Schafer, 1987; 1992; 1996). The 29-item questionnaire requires respondents to rate how stressful college-related items are on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*highly*). Sample items include "too little time," "transportation hassles," and "taking tests." Consistent with procedures in prior research, an average score ranging from 1 to 5 is derived (e.g., Dixon Rayle et al., 2005; Dixon & Robinson Kurpius, 2008; Gloria & Robinson Kurpius, 2001; Gloria et al., 1999). Higher scores indicate more perceived college stress. Initial validation of the scale was conducted with 106 undergraduates, whose scores on the assessment were compared with their scores on other measures of subjective distress, depression, and internal locus of control (Schafer, 1987). The scale demonstrated negative associations with subjective distress and depression, suggestive of construct validity (Schafer, 1987). The scale has demonstrated strong internal

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consistency reliability among diverse samples of participants, with Cronbach's alphas ranging from .85 (Gloria & Robinson Kurpius, 2001) to .91 (Chee at al., 2019). The Cronbach's alpha for this study sample was .92.

PTSD Checklist for DSM 5 (PCL-5). To assess post-traumatic stress symptom (PTSS) severity, the PTSD Checklist of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM 5; Weathers et al., 2013) was administered. The PTSD Checklist for DSM 5 measures the severity of post-traumatic stress symptoms experienced during the past month in response to "a very stressful experience." Using a 5-point Likert-type scale ranging from 0 (*not at all*) to 4 (*extremely*), participants indicated the degree to which they were bothered by 20 post-traumatic stress symptoms during the past month. The 20 items reflect diagnostic criteria for a post-traumatic stress disorder diagnosis. Sample items include "repeated, disturbing, and unwanted memories of the stressful experience," "feeling very upset when something reminded you of the stressful experience," and "avoiding memories, thoughts, or feelings related to the stressful experience." Ratings were summed to create a total PTSS severity score ranging from 0 to 80, with higher scores reflecting greater distress.

The psychometric properties of the PCL-5 have been examined in two independent samples of veterans receiving care at a Veterans Affairs Medical Center (Bovin et al., 2015). The psychometric properties of the instrument were strong, with an internal consistency of .96 and good test-retest reliability of .84. The PCL-5 also demonstrated good convergent validity with the World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0; Üstün et al., 2010) and with the PTSD Checklist-Civilian Version (PCL-C; Weathers et al., 1993) and strong discriminant

validity following comparisons with the Psychopathic Personality Inventory-Short Version (PPI- SV; Lilienfeld & Andrews, 1996) and the Patient Health Questionnaire (PHQ; Spitzer, Kroenke, & Williams, 1999). The PCL-5 was found to be a psychometrically sound measure and appropriate for use with veterans (Bovin et al., 2015) as well as trauma-exposed college students (Blevins et al., 2015). The Cronbach's alpha for the PCL-5 was .97 for this sample of student veterans.

Sense of Coherence Scale (SOC-13). The Sense of Coherence Scale (SOC-13; Antonovsky, 1987) was used to assess participants' overall sense of coherence, which was defined as "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured and predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement" (Antonovsky, 1987, p. 19). A shortened version of the Orientation to Life Scale (OLQ or SOC-29; Antonovosky, 1987), the 13-item SOC-13 measures the three components of SOC (i.e., comprehensibility, manageability, and meaning). Items such as "When you talk to people, do you have the feeling that they do not understand you?" were rated on a 7-point Likert-type scale ranging from 1 (*never have this feeling*) to 7 (*always have this feeling*). A global SOC score was derived by summing responses across the 13 items, with total scores ranging from 13 to 91. Higher scores indicate a stronger and more robust sense of coherence. Since only the total scale score meets psychometric standards recommended for research (Antonovsky, 1993; Korotkov, 1998), the total score was used to test the study hypothesis related to this construct.

Eriksson and Lindstrom's (2005) systematic review of studies employing the

SOC-13 and its 29-item counterpart revealed good internal consistencies ranging from

.70 to .92 and test-retest reliability ranging from .69 to .72. The SOC-13 has been

translated and validated for use with populations cross-culturally and internationally (e.g.,

Mahammadzadeh et al., 2010; Saravia, Iberico, & Yearwood, 2015). A strong

intercorrelation ($r = .96$) between the SOC-13 and SOC-29 has been reported (Eriksson &

Lindstrom, 2005). Good convergent validity with measures of hardiness, optimism, self-

esteem, and other resilience factors have also been noted (Eriksson & Lindstrom, 2005).

The SOC-13 demonstrated an internal consistency reliability of .89 for the current

sample.

Procedure

Data were gathered using an online survey that required 15 to 20 minutes to

complete. Prior to beginning the survey, participants read an informed consent cover

letter (see Appendix E) and provided consent by clicking on a "continue" button that

routed them to the demographic form and series of standardized instruments.

Participation in the study was a voluntary, one-time event, and no penalty was enacted for

participants who withdrew from the study prior to completing the survey. Participants

were reminded in the informed consent letter that they could choose not to participate or

to withdraw from the study at any time without penalty. No identifying information was

solicited during the course of the survey.

Funding for this project was provided by ASU's GPSA in November 2018, and

subsequent recruitment information included details about entering a raffle following

completion of the survey to win a $25 Amazon.com gift card. To enter the raffle,

interested participants could click a weblink that rerouted them to a separate Qualtrics survey where they could enter their email address. A description of odds of winning (1 in 5) was described here. No other identifying information nor information tying entries to data from the survey was gathered. There were 202 raffle entries at the completion of data collection, resulting in 40 gift card winners. Raffle winners were randomly selected using an online random number selection generator. Their email addresses were compiled and shared with a representative of GPSA who oversaw budgeting and participant compensation for the $1000 grant monies awarded for the study. This individual sent Amazon.com gift cards directly to participants' provided emails via Amazon.com on behalf of ASU's GPSA.

Data Analyses Plan

Preliminary Analyses. As part of preliminary data analyses, Cronbach's internal consistency reliabilities were calculated for each study measure. Additionally, correlations among the study variables, post-traumatic stress symptoms, college stress, cultural congruity, sense of coherence, mentoring, and career decision-making difficulties, were calculated and are presented with variable mean and standard deviation in the Results chapter (see Table 4). Data analyses for the study were conducted using the Statistical Package for the Social Sciences (SPSS) Version 26 (IBM Corp, 2019).

Tests of Assumptions. As regression analyses were planned for testing study hypotheses, tests of assumptions were conducted. Multicollinearity, normality, and homoscedasticity of the data were evaluated. Specifically, multicollinearity was tested through analysis of tolerance and variance inflation factors (VIF), normality was assessed

through review of predicted probability (P-P) plots, and homoscedasticity was determined by examination of residual scatterplots.

Regression Analyses. In addition to correlational analysis, multiple hierarchical regressions were used to test the study hypotheses. To test the prediction that mentoring would be positively related to cultural congruity (H1), a correlational analysis was performed. To test $H2_a$, that both mentoring and cultural congruity, described as college environment, would be negatively related to college stress, and $H2_b$, that post-traumatic stress symptomatology (PTSS) would positively predict college stress above and beyond that predicted by cultural congruity and mentoring, a hierarchical multiple regression equation was calculated. In step 1, mentoring and cultural congruity (college environment) were added to the regression equation, and in step 2, post-traumatic stress symptoms was added. H3, which predicted that college environment would moderate the relation between PTSS and college stress, was also tested by multiple hierarchical regression. First, mentoring, cultural congruity, and PTSS scales scores were centered and interaction variables were calculated. The interaction terms created were post-traumatic stress symptoms by cultural congruity and post-traumatic stress symptoms by mentoring. First, cultural congruity and mentoring (college environment) were entered in step 1. Post-traumatic stress symptoms were added to the regression equation in step 2. Then, the two interactions terms were entered in step 3. Finally, college stress was hypothesized to predict perceived career decision-making ($H4_a$), while SOC was predicted to moderate the relation between college stress and career decision-making ($H4_b$). The final hypothesis was examined using multiple hierarchical regression procedures. College stress and sense of coherence scales scores were centered, and the

interaction variable, college stress by sense of coherence, was calculated. First, college stress was entered into the regression equation, followed by sense of coherence in step 2 and the interaction term in step 3.

CHAPTER 3

RESULTS

Preliminary Analyses

As part of preliminary data analyses, a Cronbach's internal consistency was calculated for each study measure, as reported in the Method chapter. Additionally, associations among the study variables, career decision-making difficulties, cultural congruity, mentoring, college stress, post-traumatic stress symptoms, and sense of coherence, were calculated and are presented with variable means and standard deviations in Table 4. Data analyses for the study were conducted using the Statistical Package for the Social Sciences (SPSS) Version 26 (IBM Corp, 2019).

Tests of Assumptions. Multicollinearity of data was determined through examination of tolerance and variance inflation factors (VIF). Indicative that multicollinearity was not significantly impacting data, tolerance ranged from .475 to 1.0, and VIF ranged from 1.0 to 2.11. Allison (1999) suggested a tolerance below .40 would be cause for concern.

To test normality, skewness and kurtosis were calculated for each study variable. As per George and Mallery (2010), values of skewness and kurtosis between -1 and +1 are considered excellent for conforming to assumption of normality. All study variables met the normality assumption, with skewness ranging from -.28 to .53 and kurtosis ranging from -.88 to .21.

Scatterplots of the standardized residuals with the independent variables and scatterplots of the residuals between predicted dependent variables and the errors of prediction were evaluated to assess assumptions of linearity and homoscedasticity. For

college stress, scatterplots demonstrated a rectangular/horizontal band pattern, suggesting linearity and homoscedasticity assumptions were met (Tabachnick & Fidell, 2007). Although scatterplots of career decision-making difficulties with college stress as the independent variable also met these assumptions, the addition of sense of coherence resulted in a scatterplot with a wedge shape, indicative of heteroscedasticity. To mitigate the impact of this assumption violation, bootstrapping was employed during the regression for Hypothesis 6.

Descriptive Statistics. Means, standard deviations, and zero-order correlations among study variables are presented in Table 4. The zero-order correlations indicated strong positive associations between college stress and career decision-making difficulty ($r = .54$, $p < .001$), college stress and post-traumatic stress symptoms ($r = .50$, $p < .001$), and post-traumatic stress symptoms and career decision difficulties ($r = .35$, $p < .001$). Cultural congruity was positively correlated with sense of coherence ($r = .51$, $p < .001$) and with mentoring ($r = .20$, $p = .002$) and negatively correlated with college stress, post-traumatic stress symptoms, and career decision-making difficulties. As revealed in the correlational analysis, sense of coherence was also positively correlated with mentoring ($r = .31$, $p = .005$) and negatively correlated with college stress, post-traumatic stress symptoms, and career decision-making difficulties (see Table 4).

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Table 4.

Descriptive Statistics and Correlations among Study Variables

Variable	*M*	*SD*	1	2	3	4	5	6
1. CDD	3.62	1.78	--	-.07	-.28***	.54***	.35***	-.47***
2. MEN	4.16	3.00		--	.20†	-.05	-.11	.31**
3. CC	49.9	14.35			--	-.45***	-.45***	.51***
4. CS	2.46	.77				--	.50***	-.57***
5. PTSS	28.97	21.58					--	-.72***
6. SOC	53.37	14.65						--

Note. PTSS = Post-traumatic stress symptoms. CS = College stress. CC = Cultural congruity. SOC = Sense of coherence. MEN = Mentoring. CDD = Career decision-making difficulties. *M* = Mean, *SD* = Standard Deviation.
Minimum $n = 84$; maximum $n = 239$.
**$p < .01$, two-tailed. ***$p < .001$, two-tailed. †$p < .01$, one-tailed.

Hypothesis Testing

Hypothesis 1 (H1) predicted that mentoring would be positively associated with cultural congruity. A one-tailed correlation analysis was performed to test this hypothesis. A positive, weak association between mentoring and cultural congruity ($r = .20$, $p = .002$). H1 was supported by the data.

To test hypothesis 2, that both mentoring and cultural congruity, described as college environment, would be negatively related to college stress (H2a), and that post-traumatic stress symptomatology (PTSS) would predict college stress above and beyond that predicted by cultural congruity and mentoring (H2b), a hierarchical multiple regression equation was calculated. In step 1, mentoring and cultural congruity were

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added to the regression equation and in step 2, post-traumatic stress symptoms was added. College stress served as the dependent variable. Missing data points were addressed via mean substitution. The regression of college environment (cultural congruity and mentoring) on college stress was statistically significant, $F(2, 234) = 25.66$, $p < .001$. College environment accounted for 18% of the variance in college stress (see Model 1 in Table 5). Examination of the standardized beta weights indicated that cultural congruity was a significant negative predictor of college stress ($\beta = -.43$, $p < .000$), while mentoring was not a significant predictor ($\beta = .04$, $p = .52$). The addition of post-traumatic stress symptoms in step 2 explained an additional 11.2% of the variance in college stress, $\Delta F(1, 233) = 36.83$, $p < .001$, above and beyond that accounted for by college environment. In the second model, cultural congruity continued to be a significant negative predictor of college stress ($\beta = -.27$, $p < .001$). In addition, post-traumatic stress symptoms was also a positive predictor of college stress ($\beta = .37$, $p < .001$). Mentoring did not predict college stress ($\beta = .05$, $p = .40$) (see Table 5 for regression results). Thus, hypothesis 2 was partially supported by the data. Lower cultural congruity and greater post-traumatic stress symptoms were related to increased college stress.

Hypothesis 3, which predicted that college environment would moderate the relation between post-traumatic stress symptoms and college stress, was tested by using moderated multiple regression analyses. Before proceeding, predictor (post-traumatic stress symptoms) and moderator (college environment: cultural congruity and mentoring) variables were mean centered to facilitate interpretability of scores through standardization (see Frazier et al., 2004). The interaction terms (post-traumatic stress

symptoms x mentoring, post-traumatic stress symptoms x cultural congruity) were created using the centered predictor and moderator variables to ascertain whether the effect of post-traumatic stress symptoms on college stress would vary across levels of college environment. Missing data points were addressed via mean substitution.

To test hypothesis 3, college environment (the centered cultural congruity and mentoring variables) was entered into the first step of the moderated hierarchical multiple regression analysis predicting college stress (Model 1). Then, the centered post-traumatic stress symptoms variable was entered into the model (Model 2). The addition of the two interaction terms in step 3 did not account for any additional variance in college stress, $\Delta F(2, 231) = .00$; $\Delta R_2 = .00$, $p = 1.00$. The moderation model (Model 3) was not significant, suggesting that college environment (cultural congruity and mentoring) did not moderate the effect of post-traumatic stress symptoms on the college stress reported by student veterans (see Table 5). Thus, hypothesis 3 was not supported by the data.

Moderated hierarchical multiple regression analyses were performed to test hypothesis 4, which stated that college stress would predict career decision-making difficulties (H4$_a$) and sense of coherence would moderate this relationship (i.e., moderate the effect of college stress on career decision-making difficulties) (H4$_b$). Prior to analyses, mean-centering of college stress and sense of coherence was conducted to standardize scores and facilitate interpretability of data. An interaction term (sense of coherence x college stress) was calculated from the centered predictor (college stress) and moderator (sense of coherence) variables to discern the effects of college stress on career decision-making difficulties across levels of sense of coherence. Given the small subsample size of participants who completed both the sense of coherence and career

decision-making difficulties scales ($n = 68$), a bias-corrected and accelerated

bootstrapping approach was employed to assure trustworthiness of the data, as

recommended by Hayes and Scharkow (2013) in instances where power is of significant

concern.

Table 5.

Hierarchical Regression Analyses Predicting College Stress

Model	R	R_2	ΔR_2	ΔF	β	*t-ratio*	p
Model 1	.42	.18	.18	25.66			.000
Cultural Congruity					-.43***	-7.12	.000
Mentoring					.04	.65	.52
Model 2	.54	.29	.11	36.83			.000
Cultural Congruity					-.27***	-4.24	.000
Mentoring					.05	.85	.40
Post-traumatic Stress Symptoms					.37***	6.07	.000
Model 3	.54	.29	.00	.00			1.00
Cultural Congruity					-.26***	-4.18	.000
Mentoring					.05	.84	.40
Post-traumatic Stress Symptoms					.37***	5.99	.000
Post-traumatic Stress Symptoms x Cultural Congruity					-.00	-.07	.94
Post-traumatic Stress Symptoms x Mentoring					-.00	-.02	.98

Note. $n = 237$. ***$p < .001$.

College stress was entered into the first step of the moderated hierarchical multiple regression analysis predicting career decision-making difficulties (Model 1). College stress accounted for 19.4% of variance in career decision-making difficulties, $F(1, 66) = 15.93$, $p < .001$. As indicated by the standardized beta weight, ($\beta = .44$, $p < .01$), college stress was a significant positive predictor of career decision-making difficulties. The addition of sense of coherence in step 2 explained an additional 7.5% of the variance in career decision-making difficulties above and beyond college stress, $\Delta F(1, 65) = 6.67$, $p = .01$. Sense of coherence was a negative predictor of career decision-making difficulties ($\beta = -.33$, $p = .02$), while college stress did not predict career decision-making difficulties ($\beta = .26$, $p = .11$) in model 2 (see Table 6 for regression results).

Finally, the interaction term entered in step 3 did not account for significant additional variance in career decision-making difficulties, $\Delta R_2 = .00$, $\Delta F(1, 64) = .37$, $p = .55$. Sense of coherence in model 3 did not moderate the effect of college stress on career decision-making difficulties reported by student veterans (see Table 6). While the final model accounted for 27.4% of the total variance in career decision-making difficulties, the most parsimonious model was model 2 in which both sense of coherence and college stress predicted career decision-making difficulties. Hypothesis 4 was partially supported by the data. College stress was a positive predictor of career decision-making difficulties (H4$_a$). Although sense of coherence demonstrated a direct negative effect on career decision-making difficulties in model 2, it did not moderate the relationship between college stress and career decision-making difficulties as predicted (H4$_b$).

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Table 6.

Moderated Regression Analysis Examining the Interaction Effects of Sense of Coherence and College Stress on Career Decision-Making Difficulties

Model	R	R_2	ΔR_2	ΔF	β	p
Model 1	.44	.194	.194	15.93		.000
College Stress					.44**	.004
Model 2	.52	.269	.075	6.67		.012
College Stress					.26	.11
Sense of Coherence					-.33*	.02
Model 3	.52	.274	.004	.37		.55
College Stress					.27	.09
Sense of Coherence					-.31	.08
College Stress x Sense of Coherence					.07	.69

*Note. n = 68. *p < .05. **p < .01.*

Post-Hoc Analyses

Given the findings of the relations between post-traumatic stress and college stress and college stress and career decision-making difficulties, a multiple regression was performed to examine the relation between post-traumatic stress symptoms and career decision-making difficulties. The regression of post-traumatic stress symptoms on career decision-making difficulties was statistically significant, $F(1, 189) = 26.29$, $p < .001$. Post-traumatic stress symptoms accounted for 12.2% of the variance in career decision-making difficulties. Thus, greater post-traumatic stress symptom severity was related to greater career decision-making difficulties among student veterans in the sample.

Although not hypothesized, it is important to look at demographic and service-related characteristics of the sample. Post-hoc analyses were conducted on several demographic variables using independent samples t-tests. To control for error rate, the p-level for significance was set at .008 ($p = .05/6 = .008$) as there were six tests to be performed. The responses of male ($n = 171$) and female ($n = 67$) student veterans were compared on reported post-traumatic stress symptoms, college stress, cultural congruity, sense of coherence, mentoring, and career decision-making difficulties. There was a significant difference in the scores for post-traumatic stress symptoms for male students ($M = 26.63$, $SD = 20.87$) and female students ($M = 35.15$, $SD = 22.56$); t (223) = -2.67, p = .008; $d = 0.36$. An independent samples t-test was conducted to determine whether undergraduate students and graduate students differed on the study variables. However, no significant differences were found.

Independent sample t-tests ($p = .008$ to account for six tests) were conducted to determine if there were differences in study variables among veterans who were service connected for a mental health condition ($n = 80$) and veterans who were not ($n = 151$). Students who reported service connection for a mental health condition endorsed lower cultural congruity ($M = 45.16$, $SD = 14.95$) than did veterans who were not service connected for mental health reasons ($M = 52.05$, $SD = 13.46$); t (222) = -3.51, $p = .001$; $d = .47$. Further, service-connected veterans reported more college stress ($M = 2.67$, $SD = .82$) compared to their counterparts ($M = 2.36$, $SD = .72$); t (214) = 2.84, $p =.005$; $d = .39$. As expected, higher levels of post-traumatic stress symptoms were reported by mental health service-connected veterans ($M = 40.16$, $SD = 22.16$) compared to veterans who were not service connected for mental health reasons ($M = 22.96$, $SD = 19.24$); t (218) =

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5.98, $p < .001$; $d = .81$. Finally, veterans who were service connected for a mental health condition perceived lower sense of coherence ($M = 46.43$, $SD = 14.06$) than did their veteran counterparts who were not service connected for a mental health condition ($M = 57.92$, $SD = 14.26$); $t(76) = -3.48$, $p = .001$; $d = .80$.

Moreover, independent samples t-tests were also performed to determine differences among veterans who were service connected for a physical injury ($n = 111$) and veterans who were not ($n = 120$). The error rate was set at .008. The only significant difference was in post-traumatic symptoms reported by student veterans who were service connected for a physical injury ($M = 34.89$, $SD = 22.48$) compared to veterans who were not service connected for a physical injury ($M = 23.44$, $SD = 19.80$); $t(218) = 4.01$, $p < .001$; $d = .54$.

CHAPTER 4

DISCUSSION

In 2018, active VA education beneficiaries exceeded one million service members, veterans, and their family members (VBA, 2019). More veterans are likely enrolled in higher education without this funding, however, as many veterans do not utilize VA education benefits. For instance, Molina and Morse (2015) reported that 41% of student veterans did not use VA or DoD education benefits to fund their higher education during the 2011-2012 academic year. As colleges and universities continue to welcome the swell in student veteran enrollment that began following implementation of the Post-9/11 GI Bill, efforts to understand the distinct experiences of the student veteran population and to provide college and career success support have expanded.

It is essential to understand student veterans' experiences while facing the transition through higher education in order to support their educational attainment and post-college career establishment. "Moving through" college, considered a significant transition process for many students, is characterized by continued negotiation of challenges experienced as a result of changing role and responsibilities (Anderson et al., 2012). Ultimately, deciding on a meaningful career path and graduating, effectively moving out of this particular transition, signify successful adjustment (Anderson et al., 2012; Chickering & Schlossberg, 1995). Therefore, this study explored the interrelations of mentoring, cultural congruity, post-traumatic stress, sense of coherence (resilience), college stress, career decision-making difficulties, post-traumatic stress symptoms, and sense of coherence (using a transition theory framework (Anderson et al., 2012; Chickering & Schlossberg, 1995; Schlossberg, 1981).

In line with Schlossberg's theory, this study investigated some of the positive and negative personal resources that are available to student veterans and that influence how they cope with and eventually adjust during their transition through college (Anderson et al., 2012; Chickering & Schlossberg, 1995). Taken more broadly, Schlossberg and colleagues posited that individuals faced with transitions consider, or take stock of, their personal resources for coping, which fall under four categories: *situation, self, support,* and *strategies* (Anderson et al., 2012; Chickering & Schlossberg, 1995; Schlossberg, Waters, & Goodman, 1995). Characteristics that may bolster (assets) or erode (liabilities) a student veteran's adaptive response to challenges during the college transition process are varied and idiosyncratic. Further, the salience of specific assets and liabilities may change for an individual during the transition process (Anderson et al., 2012; Chickering & Schlossberg, 1995, Schlossberg et al., 1995). Ideally, the balance of assets and liabilities is weighted toward positive, adaptive characteristics, resulting in effective coping with transition challenges (Anderson et al., 2012; Chickering & Schlossberg, 1995, Schlossberg et al., 1995).

Often framed in research on college success as an asset for students, mentoring was examined as a source of *support* for veterans. Sources of *support,* whether social or institutional, can positively or negatively influence a student veteran's ability to move through the college transition with ease (Chickering & Schlossberg, 1995). As hypothesized, for the student veterans in this study, mentoring was positively linked to cultural congruity, which is consistent with prior research with minority students (e.g., Tollinchi, 2015). The current study's finding also supports previous research exploring mentoring alongside students' sense of cultural fit on campus (Castellanos & Gloria,

2007; Gloria & Robinson Kurpius, 2001). Although the strength of the association

between mentoring and cultural congruity in the current study was weak, the correlation

was similar to that reported by Tollinchi (2015) for Latina undergraduates. This is not

necessarily surprising as mentoring relationships are but one of several support factors

believed to contribute to perceived cultural fit on campus for minority students (e.g.,

Castellanos & Gloria, 2007; DiRamio et al., 2008). In theory, mentoring from faculty or

staff on campus would provide interpersonal support in addition to direction for

professional development. Likely, mentoring has the potential to guide student veterans

in ways that strengthen their ability to cope with college- and career-specific stressors

(Anderson & Goodman, 2014).

   In Schlossberg's theory (Chickering & Schlossberg, 1995), a veteran's *support*

resources may be indirectly reflected in perception of cultural fit, or cultural congruity,

on campus. The construct of cultural congruity may also reveal characteristics of *self*

(e.g., identity) and *situation* (e.g., role change, "fitting in") (Chickering & Schlossberg,

1995). It is possible that student veterans who perceive having positive interpersonal and

institutional support experience an increased sense of belongingness and thus better

cultural fit on their campus. Conversely, student veterans with limited social and

institutional support may perceive a tenuous connection to their university and a

diminished sense of culture congruity. The conceptual and statistical relation between

mentoring and cultural congruity lent support for using the two variables together to

reflect aspects of the "campus environment." Conceptually, campus environment

(cultural congruity and mentoring) signals the interrelatedness of factors influencing

transition coping. It is evident that characteristics of *self, situation,* and *support*

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contribute to an individual's resources for managing a transition (Chickering &

Schlossberg, 1995).

Another *situation* factor important to this study was non-transition sources of

stress during transitions (Chickering & Schlossberg, 1995; Schlossberg et al., 1995). As

anticipated, campus environment predicted college stress. The statistically significant

aspect of campus environment was cultural congruity, which negatively predicted college

stress. This negative association supports previous findings (e.g., Chee et al., 2019).

College stress may also be considered a component of the college transition with which

students must cope for successful adjustment. Interestingly, mentoring was not a

significant predictor of college stress. This result notably diverges from the large body of

research that has examined mentoring's far-reaching associations with positive student

outcomes ranging from positive self-beliefs, increased persistence, and lowered

psychological distress to increased cultural fit on campus and better college adjustment

(e.g., Bordes-Edgar et al., 2011; Crisp & Cruz, 2009; Hefner & Eisenberg, 2009; Gloria

et al., 2001; Morgan & Cotton, 2003; Santos & Reigada, 2002; Terenzini et al., 1996;

Wei et al., 2005; Wright et al., 2013). One possible explanation for mentoring's lack of

significance would consider power and sampling issues related to the overwhelming

majority of participants who denied having on-campus mentoring relationships.

Approximately only 1 in 5 student veterans in the sample reported having an on-campus

mentor which may have resulted in a floor effect for this variable. Also, the mean

number of potential mentors was less than one.

In the context of transition theory, the small proportion of student veterans

reporting having an on-campus mentor may indicate that mentoring from someone on

campus has minimal salience as a *support* resource for student veterans in light of other sources of support (e.g., other interpersonal supports, institutional support) (Chickering & Schlossberg, 1995). Given the significant population of military-affiliated students who pursue higher education in online learning environments, it is also plausible that the current sample included online students without a physical campus and for whom on-campus mentoring may have been irrelevant. Unfortunately, data related to whether the student veterans were enrolled online or on a physical campus.

More likely, the concept of mentoring and its connection to cultural congruity may not have been measured meaningfully in this study. The mentoring scale veterans completed in the online survey assessed for *on-campus* mentoring relationships and without clarification of the nature of a "mentoring relationship." Perhaps exploration of the significant interpersonal relationships with individuals who provided veterans social or relational support, one aspect of the mentoring relationship (e.g., Anderson & Shannon, 1988; Kram, 1985), would have yielded more responses. Research indicates that social or relational support, considered the psychosocial dimension of mentoring (Kram, 1985), is demonstrably important for facilitating progress of individuals in transition including students (e.g., Cavendish, 2007) and veterans (Pietrzak et al., 2010). For instance, Pietrzak and colleagues (2010) identified a strong buffering effect of post-deployment social support from friends, family, coworkers, employers and community for veterans against symptoms of PTSD and depression. Presumably, quality relational support provided during the college transition process would make veterans feel important and cared for, a feeling of mattering (Schlossberg, 1989) or belonging that is critical to perceived cultural congruity. Thus, social support from family members,

friends, or even an off-campus mentor may have increased relevance and meaning for student veterans, whether enrolled in online or on-the-ground degree programs.

Regardless of online or campus enrollment, student veterans contend with an important role change from active duty service member to student as they manage the college transition and college stress. The stark differences in characteristics of the military and university environments contribute to role change difficulty (e.g., DiRamio & Jarvis, 2011; DiRamio et al., 2008; Jones, 2013; Radford, 2009; Ward, 2018; Wheeler, 2012), an important *situation* factor for effective coping (Chickering & Schlossberg, 1995). Military culture is often described as regimented and hierarchical, reflective of an environment in which obedience to rules and the leaders enforcing these rules/regulations confers a degree of assured success in one's prescribed role (e.g., DiRamio & Jarvis, 2011; DiRamio et al., 2008; Jones, 2013). The nature of military service also requires a profound interdependence among its members for successful completion of its mission. Many individuals refer to their compatriots as family, revealing of a deep-seated sense of duty, commitment to, and trust in their fellow service members (e.g., DiRamio & Jarvis, 2008; Hammond, 2015; Livingston et al, 2011; Rumann & Hamrick, 2010; Wheeler, 2012). Furthermore, norms and expectations are defined by clear institutional values and help service members to narrow down the most salient, accepted aspects of their identities for the role at hand (DiRamio & Jarvis, 2011; Jones, 2013).

Conversely, the college/university environment is relatively unstructured, celebrates creativity and independent thinking, and requires successful self-regulation for transitioning the student role (e.g., DiRamio & Jarvis, 2011). Making this adaptation, per the accounts of student veterans in Jones' (2013) study, is difficult. Many student

veterans identify the sense of camaraderie experienced in the line of duty as the aspect of service they miss most (e.g., Hammond, 2015; Wheeler 2012). In fact, reports of feeling disconnected, isolated, and lonely upon transitioning out of the military are common among veterans and student veterans, underscoring the significance of their connections to other veterans (Barry et al., 2014; Demers, 2011; Hammond, 2015; Livingston et al., 2011; Rumann & Hamrick, 2009, 2010; Ryan et al., 2011; Wheeler, 2012, as cited by Ward, 2018). Relatedly, one challenge of transitioning to civilian life a majority of veterans and soon-to-be veterans reported was anticipated cultural barriers in the workplace related to their military identity (Prudential Foundation, 2012). These barriers might include employers not understanding military culture, co-workers feeling intimidated by veterans, and veterans having difficulty relating to co-workers (Prudential Foundation, 2012).

It is no wonder that enhancing student veterans' sense of cultural congruity would be important for establishing positive connections to college. Ultimately, these connections could help to balance the potentially negative influence of the environment and role changes student veterans are undertaking (e.g., Chickering & Schlossberg, 1995). Notably, McAndrew and colleagues (2019) identified cultural congruity as a positive predictor of college adjustment for student service members and veterans. In their study, feeling understood by others about experienced barriers to academic success somewhat buffered the relation between college adjustment and lack of university support, conflict with nonacademic life, and physical and mental health (McAndrew et al., 2019). Often student veterans are reluctant to share their veteran identity with nonveteran college peers, faculty, and staff due to persisting negative stereotypes of

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veterans (Hammond, 2015) and their perception of others lacking an understanding about the veteran experience (Smith & True, 2014). Meanwhile, Wheeler (2012) suggested that some veterans are unsure of how to form a cohesive identity that considers both civilian and military roles and, therefore, may hesitate to acknowledge a veteran identity as they work toward who or what they want to be in civilian life.

Furthermore, many military-affiliated students enter college with risk factors (e.g., having dependents, full-time work when enrolled, single parent status) found to affect persistence and attainment in higher education negatively (Molina & Morse, 2015). In other words, these factors can be liabilities for coping with college transition stress (Chickering & Schlossberg, 1995), perhaps by impacting the degree to which veterans can or want to assume their new student role. The traditional college student is typically a young adult approximately 18 to 20 years old and is exploring who they are separate from their family as they leave home for the first time (Erikson, 1968). In contrast, the military-affiliated student who is typically older and has established an identity separate from parents and birth family is more likely to be balancing his or her own family and work responsibilities in addition to college tasks (e.g., BLS, 2019; Kim & Cole, 2013; Lang et al., 2013; Radford, 2009; SVA, 2017). Compared to non-military college students, student veterans and service members are more likely to be spending more than 10 hours per week working off campus and providing care to dependents (Kim & Cole, 2013). They are also less likely than their non-military-affiliated college counterparts to engage in campus and co-curricular activities, experiential learning, peer collaboration outside of the classroom, or socializing (Kim & Cole, 2013). Markedly different from their non-military college peers, student veterans may struggle to connect to their college

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environment and the people around them, and thus perceive that they do not fit on campus (low cultural congruity).

Differences in life stage between veterans and traditional students give rise to another explanation for the study findings on mentoring. Given that veteran students are fairly nontraditional in age and life experiences, they may not have sought out a mentor. Southwell et al. (2016) found that visiting with advisors and faculty was positively correlated to service member and veteran students' perception of the university or college environment. Visiting, however, may not equate to mentoring. It is possible that the veterans and service members desired academic advising, financial guidance, and other college-specific information but did not want or perceive a need for mentoring in their relationships with faculty and advisors. Working closely with a mentor may signify a dependency on someone else to make college or career-related decisions, while some veterans may perceive themselves as experienced decision-makers given their military and life experiences. Although veterans had to rely on officers and leaders to give direction during their military service, veterans perhaps considered themselves able to follow those directions in the academic setting independently. Thus, the gap between veteran and non-veteran students is apparent in the identity exploration and decision-making experiences that veterans had prior to beginning their college transition process. Most of the studies exploring college experience and mentoring were conducted with traditional college students, and veterans' nontraditional characteristics are less frequently represented in the literature.

According to Schlossberg and colleagues (1995), the personal and psychological characteristics comprising *self* resources can positively or negatively impact coping with

transitional stress. Psychological well-being can be viewed as a positive *self* resource.

Many veterans experience post-traumatic stress symptoms, which negatively impact

one's mental well-being. In this study, post-traumatic stress symptoms positively

predicted college stress, above and beyond the variance in stress accounted for by cultural

congruity and mentoring (campus environment). This finding supports previous research

linking service members' post-traumatic stress to college stress (Cate et al., 2017; Weber

2012) and to functional impairment, including difficulties with work and occupational

functioning (e.g., Hoge et al., 2007; Rona et al., 2009; Stein et al., 2000; Vinokur et al.,

2011). Veterans experiencing higher levels of post-traumatic stress symptoms endorsed

higher levels of college stress. Categorized as a *situation* factor, stressors unrelated to the

stress of the transition itself can also negatively influence a student veteran's ability to

cope with the transition to college (Chickering & Schlossberg, 1995). Furthermore, in

their review of the literature on military-affiliated students, Barry and colleagues (2014)

identified student service members and veterans as having higher rates of health risk

behaviors, more negative psychological symptoms, and greater challenges to college

adjustment than did their non-military college student peers.

More specifically, Morin (2011) found that veterans who reported struggling with

post-traumatic stress symptoms were far less likely to endorse having an easy transition

to civilian life than were veterans who did not experience post-traumatic stress symptoms

(34% versus 82%, respectively). Relatedly, Artime and colleagues (2019) found that

trauma-exposed undergraduate students, a sample that included student service members

and veterans, were more likely to endorse higher levels of stress, to experience more

symptoms of depression and anxiety, and to be diagnosed with a mental health condition

than were students who endorsed no trauma exposure. One must only consider the diagnostic criteria for post-traumatic stress disorder (such as re-experiencing the traumatic event through nightmares, flashbacks, or intrusive upsetting memories; overly negative thoughts and assumptions about oneself or the world; and difficulty experiencing positive affect) to gain insight into symptoms' pervasive impact on the lives of individuals who experience post-traumatic stress. In addition to heightened arousal and reactivity, symptoms experienced may include a range of issues that disrupt attention and concentration, sleep, and rational thinking and decision-making (American Psychiatric Association, 2013). Disruption to essential processes for college functioning may set up affected students veterans for significant difficulties and possibly increased stress related to the college tasks they are struggling to complete. For example, among secondary school and college students, post-traumatic stress symptoms have been linked to lower academic self-efficacy (Ness & Vroman, 2014), to poorer academic performance (Bolton et al., 2004), and to difficulties concentrating on and processing information (Margolin et al., 2011). It is not surprising that in this study more post-traumatic stress symptoms predicted more stress and more career decision-making difficulties for these student veterans.

As veterans separate from the military and begin pursuing a higher education, they leave behind a distinct job role and institutional culture and assume novel responsibilities in a markedly different environment. It is possible that essential college tasks, such as completing readings and assignments, attending courses, and taking tests, are experienced by students as job-like in their implication for success as a college student. These may be similar to work role tasks for employees, who must perform

certain duties satisfactorily in order to retain their jobs. In essence, students may experience the student role similarly to an employee role, both of which include specific tasks that must be completed successfully for role success. From this perspective, research linking post-traumatic stress symptoms to absenteeism, job stress, difficulty completing work tasks, and job burnout (Hoge et al., 2007; Rona et al., 2009; Stein et al., 2000; Vinokur et al., 2011) may reflect similar challenges for students in their student role.

Interestingly, campus environment (mentoring and cultural congruity) did not attenuate the relation between post-traumatic stress symptoms and college stress. Previous research has demonstrated associations between post-traumatic stress symptoms and poor social support and low cultural congruity (Weber, 2012) and between perceptions of environment and positive academic-related outcomes (e.g., Delgado-Guerrero, 2016; Southwell et al., 2016). Nonetheless, college environment did not serve as a buffer between post-traumatic stress symptoms and college stress in this study. The powerful relation between post-traumatic stress and college stress underscores the need to help veterans address post-traumatic stress symptoms, which negatively tip the balance of personal resources for coping with the college transition (Schlossberg et al., 1995).

In the case of post-traumatic stress disorder, the psychological symptoms of stress linger and cause ongoing distress in the absence of the precipitating event or stressor (American Psychiatric Association, 2013). As McGee and colleagues (2018) noted, there is some support in the literature on early-life adverse events and later well-being that supports that chronic or prolonged stress may result in increased sensitivity, rather than resilience, to subsequent stress experiences (e.g., Juster et al., 2010; McEwen, 2004;

Rutter, 2012). Thus, student veterans with post-traumatic stress symptoms may be more likely to experience heightened distress in light of new academic stressors associated with the college transition and career development and decision-making. Therefore, the positive link between post-traumatic stress symptoms and college stress was not surprising.

It was also not surprising that college stress positively predicted career decision-making difficulties, which appears to support research linking the latter to psychological distress (Fouad et al., 2006), to lack of mentoring (Lease, 2004), and to cultural value conflicts (Leung et al., 2011). These constructs have been associated with college or academic stress in this study and in prior research (e.g., Vaez & Laflamme, 2008). Conceptually, college stressors are a component of transition challenges to which students must adjust. Such adjustment is complicated by a number of other individual, idiosyncratic factors, such as difficulties in career decision-making.

To facilitate their adjustment to and coping with transition challenges, individuals may turn to *self* resources, which include a range of variables from pre-existing health challenges such as post-traumatic stress to resilience as evidenced by a sense of coherence (Chickering & Schlossberg, 1995; Rumann & Hamrick, 2010). Sense of coherence, composed of concepts of comprehensibility, manageability, and meaningfulness, is a global resilience construct that connects personal health to external factors that influence well-being (Antonovksy, 1987). It reflects individuals' appraisal of their internal and external worlds as predictable and making sense, of themselves as having the necessary resources to meet the challenges they encounter, and of the world's demands as worthy of their time and energy (Antonovsky, 1987). In this study, sense of

coherence demonstrated a direct negative effect on career decision-making difficulties. That is, the greater veterans' sense of coherence, the fewer difficulties they experienced with career decision making.

Furthermore, consistent with the literature on sense of coherence and post-traumatic stress symptoms (e.g., Dudek & Koniarek, 2000), sense of coherence was also strongly and negatively correlated with post-traumatic stress symptoms for the study veterans. Relatedly, a post hoc analyses specifically analyzed the relation between post-traumatic stress symptoms and career decision-making difficulties. Post-traumatic stress symptoms accounted for a significant portion of variance in career decision-making difficulties. The more post-traumatic stress veterans experienced, the more difficulties they reported with career decision-making.

Schlossberg and colleagues' (1995) transition model would suggest that resilience is an important *self* resource, one that likely buffers the impact of transitional stressors on overall adjustment. This supposition is supported in the expansive literature on sense of coherence that has frequently reported sense of coherence as a mediating or moderating variable for the relation between various sources of stress and markers of well-being (e.g., Albersten et al., 2001; Cilliers, 2003; Feldt et al., 2000; McGee et al., 2018; Torsheim et al., 2001). Yet, sense of coherence did not moderate the relation between college stress symptoms and career decision-making difficulties for the student veterans in this study. It is possible that in the current study there was insufficient power to detect an interaction effect, largely due to sampling challenges that resulted in a significantly reduced subsample size. This lack of power may have resulted in the current findings differing from the findings of prior research.

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Alternatively, reconsideration of career decision-making difficulties as a marker of college- and career-related well-being may be warranted. Career decision-making difficulties is a broad construct as evident in the range of items utilized to measure it on the CDDQ. Career decision making difficulties are composed of three primary categories that reflect unique aspects of the decision-making process. These categories include: (a) lack of readiness, which includes individual factors that typically exist prior to engaging in decision-making (e.g., general indecisiveness, dysfunctional beliefs about career decision-making); (b) lack of information, which may occur during the decision-making process; and (c) inconsistent information, which underscores challenges in applying relevant information to decision-making (e.g., internal or external conflicts, unreliable information) (Gati et al., 1996; Gati & Saka, 2001). Perhaps as a construct, career decision-making difficulties may better fit into the Schlossberg's transition framework as a non-transition source of stress or a personal liability (e.g., career indecisiveness, dysfunctional thought patterns, perceived lack of information) that contributes to the equilibrium or balance of resources upon which individuals draw to cope with transitions (Chickering & Schlossberg, 1995).

Consider, too, the practical significance of major declaration for career decision-making. Without declaring a major, students may be blocked from taking advanced coursework in a field of interest and may need to extend their program of study. Extending college enrollment can jeopardize financial aid assistance that is intended to cover a specific timeframe for degree completion (McMenamin & Kurzynski, 2016). The stressors related to major and career decision-making are varied. Further, the link between career decision-making difficulties and college stress and between post-

traumatic stress and career decision-making difficulties in this study seem to lend support

to this alternative explanation. Prior research has also identified an association between

career decision-making difficulties and psychological distress (Fouad et al., 2006). It is

possible that sense of coherence as a moderator or mediator would more likely be

detected when examining the relation of stress experiences to overall college adjustment,

college satisfaction, career confidence, or other measures of well-being that were not

assessed in this study.

Summary of Findings

Based on the interrelations of college stress, career decision-making difficulties,

post-traumatic stress symptoms, sense of coherence, cultural congruity, and mentoring

examined in this study, it is evident that student veterans may struggle with multiple

unique stressors in addition to the typical college stress and career decision-making

difficulties known to their civilian counterparts (Cate et al., 2017). Cultural congruity's

negative association with college stress lends support to research highlighting the

importance of cultural fit on the college campus for student veterans (e.g., McAndrew et

al., 2019; Weber, 2012). Thus, facilitating feelings of cultural fit on campus for student

veterans may be critical to optimal college transitioning. Although campus environment

(mentoring and cultural congruity) did not buffer the relation between post-traumatic

stress and college stress, it is clear that student veterans are keenly affected by the

influence of these stressors beyond their perceived cultural fit with their college.

The connections between post-traumatic stress symptoms, college stress, and

career decision-making difficulties are not surprising. Essentially, as veterans reported

heightened levels of post-traumatic stress, they experienced greater college stress, which

then predicted more career decision-making difficulties. Sense of coherence was not found to moderate the relation between college stress and career decision-making difficulties, which may suggest that this aspect of resilience alone is insufficient for mitigating the impact of college stress. These findings support the need for institutional interventions at an early stage in college so that veterans are connected with resources to facilitate their coping and for resolution of any challenges experienced. On-campus mentoring lacked predictive power in this sample. However, prominent scholars in student veteran research agree that student veterans would benefit from mentoring or partnering with faculty and staff (e.g., DiRamio & Jarvis, 2011; Vacchi, 2012; Ward, 2018) given the importance of mentoring for college adjustment. It is recommended that inquiry into mentoring's influence on veteran's college experience be continued.

Limitations

Given the importance of continued exploration of the challenges student veterans encounter in their student life and career development, limitations of the current study must be discussed. First, difficulties in recruitment efforts resulted in three waves of data collection over multiple years. These sampling issues impacted results related to two instruments and required adjustments to analyses. As the vast majority (approximately 80%; $n = 191$) of the student veterans surveyed denied having a mentor, many participants did not respond to the sixth item of the Mentoring scale that assessed the extent to which one's on-campus mentor had impacted the student. Thus, to preserve any internal consistency reliability for this measure, the scale was reduced to its first five items during analysis. Furthermore, the relatively small number of student veterans who reported having an on-campus mentor may have impacted not only the validity but also

the statistical power of this measure. Given that the student veterans reported less than one person on campus as a possible mentor, there may have been a floor effect that limited its predictive ability. The importance of mentoring may not have been validly measured as the potential of having supportive mentors who were not on campus was not assessed.

With regard to the Sense of Coherence scale, a technical issue related to the online data gathering program resulted in a small number of participants having access to the measure ($n = 84$). Furthermore, the number of participants who completed both the Sense of Coherence Scale and Career Decision-Making Difficulties Questionnaire was small ($n = 68$), which likely impacted the power of the statistical analyses. The results related to these two measures, therefore, must be viewed with caution.

Another study limitation concerns the composition of the study sample. It was predominantly male (71.5%) and White (62.2%). These numbers are similar to the population of service members and veterans enrolled in four-year universities during the 2011-2012 academic year (Kim & Cole, 2013). However, it is unclear whether the present sample accurately reflects the diverse demographics of the currently enrolled college veteran population, potentially limiting generalizability of study findings. Furthermore, it may be difficult for veterans, particularly those who acknowledge multiple minority group identities, to determine their perceived cultural congruity in relation to one identity (military).

There are a number of variables that were not assessed in this study but have been linked to college and academic stress. Academic performance (e.g., Chemers et al., 2001), academic self-efficacy (e.g., Chee et al., 2019; Roddenberry & Renk, 2010;

Zajacova et al., 2005), self-esteem (e.g., Dixon & Robinson Kurpius, 2008), mattering (e.g., Dixon & Robinson Kurpius, 2008; Dixon Rayle & Chung, 2007), and mental health problems including depression, anxiety, and suicidal ideation (e.g., Flatt, 2013; Sarma, 2014) are but a few of the factors that may contribute to the experience of college stress. Absence of these variables from the present study prevents a more comprehensive understanding of the impact of college stress on career decision-making difficulties.

In an effort to maintain anonymity of participants and to avoid gathering identifying information, the online survey did not collect data about students' geographic location, including institution location and type of learning environment. There may have been differences across degree program type (online versus on-the-ground) that may have impacted the study findings. Notably, one of the largest public universities in the southwestern United States where recruitment was strong reported that more than half of their roughly 8,400 military-affiliated students enrolled during the Fall 2018 semester were enrolled in online degree programs, therefore not requiring the student to be on campus (Terrill, 2018). Enrollment in online degree programs and correspondence training has been promoted as a worthwhile option for military-affiliated students, particularly for its increased flexibility for managing the multiple demands of these non-traditional students (e.g., Gross, 2018). These demands could include needing to miss class for active duty requirements, completing schoolwork while engaged in a full- or part-time job, or negotiating family and childcare responsibilities (e.g., Gross, 2018).

Lack of physical presence on a college campus may also have impacted how some veterans perceived their cultural congruity. For instance, the Cultural Congruity Scale-Military version specifically inquired to what extent "I often feel like a chameleon,

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having to change myself depending on the military history of the person I am with at school" and "I feel that my language and/or appearance make it hard for me to fit in with other students." Future research into how on-campus versus online student veterans experience support would be helpful for understanding the relevance of factors such as cultural congruity and mentoring for their career decision-making and career/professional development.

Another limitation is the research design chosen to investigate the study hypotheses. The cross-sectional, quantitative design prevented deeper exploration of how the study variables influenced each other and the student veterans' college experiences. A qualitative component or mixed study design would have shed light on these experiences. Further, intention does not necessarily have a linear relationship with persistence decisions; therefore, a longitudinal with a follow-up component to assess student persistence in their chosen career post-graduation would be interesting and lend more meaning to the study findings. Finally, the sample included undergraduate and graduate students. A larger sample of each of these subgroups would have allowed for examination of group differences. This may be especially important since graduate students may have been making more positive career decisions as reflected in their enrollment in specialized graduate programs.

Directions for Future Research and Clinical Implications

First and foremost, additional research into the interrelations of the study variables is needed, particularly among veterans pursuing degrees in online versus on-ground campus environments and veterans across year in undergraduate education. Ideally, future research should gather longitudinal data to inform understanding of

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student veteran's post-college career establishment. As they relate to post-college career establishment, consideration of challenges with career decision-making, campus culture, support, and mental health issues would enrich our understanding of student veterans. Veteran-targeted programming for college and career success that is already employed on campuses should be examined for efficacy. Generally, more information about military-affiliated student utilization of support services is needed, including veterans' reports of pathways and barriers to service access and perceived utility of provided services. Future research should continue to explore student veterans' career development experiences in higher education and the potential confluence of cultural congruity and sense of belongingness. These variables may directly and indirectly reflect an individual's *self* and *support* resources.

Future research also needs to take into consideration individual characteristics of student veterans, such as gender and service connection. Post hoc analyses revealed differences related to gender in the severity of post-traumatic stress symptoms experienced, and female veterans reported more post-traumatic stress symptoms than did male veterans. In addition, veterans who were service connected for mental health conditions endorsed lower cultural congruity, heightened college stress, higher levels of post-traumatic stress symptoms, and lower sense of coherence than did veterans who were not service connected for mental health reasons. Veterans with service connection for a physical injury also endorsed higher levels of post-traumatic stress symptoms than did veterans who were not service connected for a physical injury. These exploratory findings underscore a diverse population of student veterans who are enrolled in higher education. Research exploring individual characteristics in relation to study variables

may provide nuanced understanding of the unique college transition challenges and needs of veterans.

In light of the relation of college stress to career decision-making difficulties, factors associated with reduced college stress in this study (e.g., cultural congruity, mental well-being/absence of significant post-traumatic stress symptoms) should be considered in future research related to career development programming and intervention. Citing Gati and Levin (2004), Farnia and colleagues (2018) noted that career information and rational decision-making strategies are inadequate interventions for clients presenting with emotional issues and extensive career indecisiveness. Farnia et al., who found trait emotional intelligence to predict career indecisiveness above and beyond the Big Five personality factors, posited that individuals with higher trait emotional intelligence were able to sort through and regulate emotions during challenging, emotionally provocative choice-making, which may result in experiencing more confidence in their decisions and less doubt and confusion (characteristics of indecisiveness). More information about the role of emotional intelligence in regulating college stress and the stress related to career decision-making may enable stakeholders in veteran education to develop effective intervention for reducing not only college stress but career indecisiveness.

Considering that post-traumatic stress symptoms predicted career decision-making difficulties of the student veterans in this study, arming career specialists with information to facilitate referrals to mental health services on campus or through local VAs may ultimately reduce the degree of difficulty some veterans encounter during this challenging process of career decision-making. As veterans' college liaisons attend to

their students' career development and decision-making, an awareness of warning signs of common mental health challenges for military-affiliated students would be beneficial. Recent estimates place PTSD and depression as affecting approximately 30% to 38% of Gulf War II-era veterans (Institute for Veterans and Military Findings, 2017). In general, increasingly larger numbers of college students are reporting mental health concerns (e.g., American College Health Association, 2019). Nonetheless, military-affiliated students must be acknowledged distinctly for the unique precipitating factors (e.g., combat) that may lead to veterans having difficulties with post-service adjustment and mental health challenges.

Unfortunately, this study did not assess for specific coping strategies utilized in relation to college stress and career decision-making difficulties. Coping strategies have been conceptualized and operationalized in a number of ways, and current research is trending toward examining coping strategies in the social and cultural contexts in which individuals employ them (e.g., Heppner et al., 2014; Kuo, 2011; Lipshits-Braziler et al., 2015). For instance, Lipshits-Braziler and colleagues (2016) proposed a three-pronged model of strategies individuals use to cope with career indecision--productive coping, support-seeking, and nonproductive coping. Application of this model with student veterans may allow for a more nuanced understanding of the resources and liabilities that this population bring to their career decision-making process.

Prevention, early identification, and intervention for career decision-making difficulties are goals for which college staff and counseling psychologists working with student veterans should strive when possible. Such efforts would likely equip student veterans with institutional support for which they see a clear, relevant purpose and pave

the way for student veterans to seek and utilize resources in the future. For instance, establishing contact with new student veterans as soon as they arrive on a physical campus (e.g., during orientation and transition programming) may be an efficient way to reach the broader university's veteran population with career-focused programming. Seeking veterans' perspectives on the kind of help they desire may also lead to both improvement in quality of services and their relevance to the veterans enrolled, increasing interest in services and ultimate utilization. Interventions that bring military cultural values to the forefront may be helpful for acknowledging the values many student veterans share, normalizing adjustment difficulties, and assisting their college liaisons in identifying and connecting veterans reporting career-related difficulties with specific services.

Individual and group counseling interventions that address coping with college stressors might include exploration of factors that can mitigate (e.g., cultural congruity) or exacerbate (e.g., prevalence of PTSS) college stress and career decision-making difficulties. College counseling centers could expand their services to include stress management skills groups, workshops on developing emotional intelligence, or other skills-based interventions to enhance student veterans' skills for coping with stressors. Supportive peer groups in which veterans make connections with other military-affiliated students, including upper-level student veterans, may allow for natural development of mentoring relationships within the group. Veterans seeking career direction and struggling with career indecision may find value in career development instruction in a group or classroom setting with guided exploration activities and immediate feedback.

Given their findings of the importance of institution and educational goal commitment for students' persistence rather than for major commitment, Graunke and colleagues (2006) suggested that general education may provide students a safe base for career exploration and may minimize their concerns of failure or felt pressure to declare a major. Counseling psychologists and mental health professionals working in college settings are well-positioned to assist in development of approaches for enhancing student veterans' resources for coping with the college transition. Strategies that normalize challenges associated with the college transition process, promote early utilization of career development and decision-making services, enhance feelings of cultural fit on campus, and address post-traumatic stress may facilitate successful college transitions. Efforts to address challenges at the onset of transition through college will provide student veterans with opportunities to feel more positive about the college environment and to explore potential careers without fear, ideally reducing some of the difficulties they may otherwise experience.

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APPENDIX A

INSTITUTIONAL REVIEW BOARD APPROVAL LETTERS

IRB Initial Approval

EXEMPTION GRANTED

Sharon Kurpius
CISA: Counseling and Counseling Psychology
480/965-6104
sharon.kurpius@asu.edu

Dear Sharon Kurpius:

On 8/21/2017 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Campus Environment, Stress, and Sense of Coherence: Influence on Student Veterans' Career Decision-Making
Investigator:	Sharon Kurpius
IRB ID:	STUDY00006539
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• PTSS Checklist - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Cultural Congruity Scale _ Military - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Mentoring Scale - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Recruitment Email.pdf, Category: Recruitment Materials; • Recruitment - Participant Flier.pdf, Category: Recruitment Materials; • Sense of Coherence _ Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Demographic Questionnaire - Dissertation.pdf, Category:

	Measures (Survey questions/Interview questions /interview guides/focus group questions); • Career Decision Making - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Daily Hassles - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • HRP-503a_BORENSTEIN-MAUSS_8-20-17.docx, Category: IRB Protocol; • Consent Form - Dissertation.pdf, Category: Consent Form;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 8/21/2017.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Kimberly Borenstein-Mauss
        Kimberly Borenstein-Mauss

IRB Modification Approval

ASU Knowledge Enterprise Development

EXEMPTION GRANTED

Sharon Kurpius
CISA: Counseling and Counseling Psychology
480/965-6104
sharon.kurpius@asu.edu

Dear Sharon Kurpius:

On 11/14/2018 the ASU IRB reviewed the following protocol:

Type of Review:	Modification
Title:	Campus Environment, Stress, and Sense of Coherence: Influence on Student Veterans' Career Decision-Making
Investigator:	Sharon Kurpius
IRB ID:	STUDY00006539
Funding:	Name: Graduate College
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Daily Hassles - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • PTSS Checklist - DIssertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Sense of Coherence _ Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Grant Budget Deviation Request, Category: Other (to reflect anything not captured above); • Recruitment - Participant Flier_11-13-18.pdf, Category: Recruitment Materials; • Notification of Grant Award and Acceptance Emails, Category: Other (to reflect anything not captured above); • Demographic Questionnaire - Dissertation.pdf, Category: Measures (Survey questions/Interview questions

	/interview guides/focus group questions); • Cultural Congruity Scale _ Military - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Career Decision Making - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Recruitment Email - 11-13-18.pdf, Category: Recruitment Materials; • Grant Application, Category: Grant application; • Consent Form - Dissertation_11-13-18.pdf, Category: Consent Form; • HRP-503a_Borenstein-Mauss_11-13-18, Category: IRB Protocol; • Mentoring Scale - Dissertation.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 11/14/2018.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

Sincerely,

IRB Administrator

cc: Kimberly Borenstein-Mauss
        Kimberly Borenstein-Mauss

APPENDIX B

GPSA GRANT LETTER

ASU Graduate & Professional Student Association
Research Grant Program (2018-2019)
sent by: Alyssa Sherry

October 31, 2018

Dear Kimberly-

Thank you for submitting an application to the GPSA and ASU Graduate Education
Graduate Research and Support Program (GRSP). We appreciate your passion for
graduate research and your commitment to academics at ASU.

Congratulations! We are pleased to inform you that your project titled Kimberly
Borenstein-Mauss (copy) has been selected for funding in the amount of $1,000. The
reviewer committee is confident your outstanding project demonstrates the high caliber
of graduate student research that we have come to expect at Arizona State University.

The Graduate Research Support program is administered by the GPSA and the Graduate
College and is sponsored by ASU's Office of Knowledge Enterprise Development
(OKED). Over the next week, we will be preparing the paperwork for your grant, during
which time we will transfer your information to the Graduate College who will
administer your grant funds.

A copy of your itemized budget will be on file with the Graduate College. You can either
save all your receipts and invoices for your requested funds and request a reimbursement
every 30 days or work directly with the Graduate College Business Office to make
purchases. More information regarding the purchasing and reimbursement process can be
found at https://graduate.asu.edu/business-services#tabs-0-content_main-3

REIMBURSEMENT
You may request reimbursement for expenses beginning August 16, 2018 through May 1,
2019. Although you have been selected for funding, reimbursement is contingent upon
Graduate College approval of eligible expenses. Final reimbursement decisions are made
by Graduate College. The Graduate Research Support Program will NOT reimburse the
following:
1. Equipment purchase (no laptops, no camera, etc.)
2. Any transaction greater than or equal to $1,000
3. Tuition or remuneration of time spent on project
4. Conference travel (although travel for data collection is allowed)
5. Terminal publication charges (e.g., binding/printing of thesis or dissertation)
6. Dissertation expenses (i.e., printing, editing, translation of dissertation, etc.)
7. Salaries and wages for research assistants, ASU affiliates or employees

IMPORTANT: HOW TO ACCEPT YOUR AWARD
In order to access the funds you have been awarded, you must email
gpsa.research@gmail.com and state that you 1) Accept the award and 2) Agree to the
awardee responsibilities listed below. Failure to do so will result in forfeiture of your
award.

AWARDEE'S RESPONSIBILITIES
Funded grant recipients will:
1. Be responsible for bringing the project to completion within the stated time period.
2. Ensure appropriate expenditure of funds.
PLEASE NOTE: Expenses need to be turned in to Graduate College within 30 days of
expenditure. You do not need to spend all of the award at once. But for each purchase,
you need to turn in your receipt and appropriate paperwork within thirty days.
3. Acknowledge in any public presentation and publication of the results, the support
provided by the Office of Knowledge Enterprise Development, GPSA, and the Graduate
College.
4. Be invited to present research in a forum during the Research Symposium, which will
take place during Graduate Appreciation Week, March 18-22 (details to follow).
5. Provide a final report on the outcome or progress of the project.

PROGRESS REPORT
As a condition of the Graduate Research Support Program award, all grant recipients
are required to submit an electronic copy of a progress report which is due no later
than April 27th, 2019. This report should not be a copy of the thesis or dissertation, but
rather, a summary of the research that clearly states the justifications and significance of
the project's outcome or progress. The copy of this final report must be three (3) pages
and turned in electronically to gpsa.research@gmail.com.

AWARD RECOGNITION
We will be honoring you at the Graduate Student Symposium during Graduate
Appreciation Week (March 18-22). We will email you with more details next semester.

OTHER AWARD INFORMATION
Please review the attached PowerPoint for more detailed information about your award.
The PowerPoint includes information on allowable expenses, processes for purchasing
different items, and the reimbursement process. The reimbursement form is attached.

PLEASE NOTE: It is YOUR responsibility to review the funding rules, processes, and
reimbursement requirements. Failure to follow Graduate College, Graduate &
Professional Student Association, and Arizona State University policies could result in
failure to receive any funds/reimbursement. To ensure that you understand the rules and
processes associated with this award, please carefully review the attached powerpoint
AND attend Office Hours with Graduate College (see details below).

FUNDING QUESTIONS?
Please contact Savannah Barragan (grad-gpsa@asu.edu) with the Graduate College, if you have questions about the funding process, or to verify the eligibility of any imminent purchases.

If you have specific questions, attend Office Hours with Graduate College on Wednesday, November 7, 2018, from 10 am - 1 pm in Interdisciplinary B, Room 286.

We will look forward to seeing the results of your research.

Sincerely,

Alyssa Sherry
Vice President of Internal Affairs
Graduate and Professional Student Association (GPSA)

APPENDIX C

RECRUITMENT EMAILS

Recruitment email – Initial wave

Hello Students,

My name is Kim Borenstein-Mauss, and I am a doctoral candidate in counseling psychology at Arizona State University. I am reaching out to you as I am seeking students who are veterans of the U.S. Armed Forces to participate in my dissertation research focusing on student veterans' career decision-making and college or university experiences.

Eligibility requirements for participants include current enrollment in a degree-seeking college or university program and identification as a veteran of the United States Armed Forces. Participation involves completion of a brief online survey involving your reflections on your academic, educational, and support experiences at college as well as some reflection on your military background and experiences.

Participation is completely voluntary, takes no longer than 15 minutes, and can be completed at your convenience from any computer with internet access. Responses, which will remain anonymous and confidential, will be used to better understand the higher education experiences of student veterans and provide valuable information that may ultimately help to improve the quality of student services for veterans.

By clicking the following link, you will be provided with a brief description of the study and informed consent to participate: [STUDY LINK]

Finally, it would be greatly appreciated if you could forward on this invitation to participate to any other student veterans you may know.

This research is under the supervision of Sharon Robinson Kurpius, Ph.D., (sharonkurpius@asu.edu) and has been approved by the Arizona State University Institutional Review Board (#STUDY00006539).

Thank you for your time and consideration,

Kim Borenstein-Mauss, M.Phil.Ed.
Doctoral Candidate, Counseling Psychology
Arizona State University
Kim.Mauss@asu.edu

Recruitment Email – Gift Card Opportunity

Hello Students,

My name is Kim Borenstein-Mauss, and I am a doctoral candidate in counseling psychology at Arizona State University. I am seeking students who are veterans of the U.S. Armed Forces to participate in a 15-20 minute survey about career decision-making and college experiences post-service.

Best of all, 40 participants will receive $25 Amazon.com gift cards for participating in the brief survey -- that is a 1 in 5 chance of winning!

To be eligible for participation, you must be:
- currently enrolled in a degree-seeking college or university program
- a veteran of the U.S. Armed Forces

Participation involves completion of a brief online survey involving your reflections on your academic, educational, and support experiences at college as well as some reflection on your military background and experiences. Also, it:
- is completely voluntary, anonymous, and confidential
- takes no longer than 15 to 20 minutes
- can be completed at your convenience from any device with internet access

Responses will be used to better understand the higher education experiences of student veterans and provide valuable information that may ultimately help to improve the quality of student services for veterans.

Upon completion of the survey, you will have the opportunity to enter a raffle drawing for a $25 Amazon.com gift card. You will be navigated to an external site to submit your raffle entry. Your email address is required for participation; however it will not be linked to your completed online survey responses. Gift card winners will be notified by the email address provided.

By clicking the following link, you will be provided with a brief description of the study and informed consent to participate: [STUDY LINK]

Please feel free to forward this invitation to participate to any other student veterans you may know.

This research is under the supervision of Sharon Robinson Kurpius, Ph.D., (sharonkurpius@asu.edu) and has been approved by the Arizona State University Institutional Review Board (#STUDY00006539).

Thank you for your time and consideration,

Kim Borenstein-Mauss, M.Phil.Ed.
Doctoral Candidate, Counseling Psychology
Arizona State University
Kim.Mauss@asu.edu

APPENDIX D

RECRUITMENT FLYERS

Recruitment Flyer – Online Posting

CALLING ALL STUDENT VETERANS!

CONTRIBUTE TO RESEARCH, ENTER A RAFFLE TO WIN A $25 AMAZON CARD!

My name is Kimberly Borenstein-Mauss, and I am a doctoral student in the Counseling Psychology Program at Arizona State University. I am working under Dr. Sharon Robinson Kurpius in conducting a study that investigates student veterans' career decision-making and college experience. This study is intended to provide additional information regarding the experiences of student veterans in higher education.

This study is expected to take around 15 to 20 minutes of your time. Participation involves completion of an online survey involving your reflections on your academic, educational, and support experiences at college as well as reflection on your military background and experiences.

Upon completion of the survey, you will have the opportunity to enter a raffle drawing for one of forty $25 Amazon.com gift cards (Odds of winning: 1 in 5!). Gift card winners will be notified by the email address provided.

To participate in the study, you must be:
- A veteran of the United States Armed Forces
- Currently enrolled in a college or university program
- Be at least 18 years of age

Your participation in this research is voluntary. There will be no penalty if you choose not to participate. You may discontinue your participation in the study at any time and you may skip any items that you do not wish to answer. Your responses will be kept anonymous and confidential.

By clicking the following link, you will be provided with a brief description of the study and informed consent to participate: [STUDY URL]

Information gathered from this study will be used to better understand the higher education experiences of student veterans and provide valuable information that may ultimately help to improve the quality of student services for veterans.

Should you have any questions or concerns regarding this research study, please feel free to contact the research team at kim.mauss@asu.edu or sharon.kurpius@asu.edu or at (480) 965-6104. If you have any questions regarding your rights as a research participant, or feel you have been exposed to risks, you may contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance at (480) 965-6788. IRB Approval: #STUDY00006539.

Recruitment Flyer – Online Abbreviated Posting

CURRENT COLLEGE STUDENTS WITH U.S. MILITARY EXPERIENCE:
We want to know about your college experience, career decision-making, and experiences in the military! Researchers at Arizona State University invite you to participate in a 20-minute anonymous online survey. Responses will be used to better understand the higher education experiences of student veterans and provide valuable information that may ultimately help to improve the quality of student services for service members. We are seeking 200 participants for this survey.

As appreciation for your participation, we offer an opportunity for you to enter to win one of 40 Amazon.com $25 gift cards - a 1-in-5 chance of winning! If interested in participating in the survey, please click the link below to access the informed consent and begin the survey: [STUDY LINK]

Contact Kim Borenstein-Mauss (kim.mauss@asu.edu) or Sharon Robinson Kurpius, Ph.D., (sharonkurpius@asu.edu) with questions or concerns about the survey. This study has been approved by the Arizona State University Institutional Review Board (#STUDY00006539).

APPENDIX E

INFORMED CONSENT LETTERS

Research Informed Consent – Initial

Dear Participant:

I am a doctoral candidate under the direction of Professor Sharon Robinson Kurpius in the Counseling and Counseling Psychology Department at Arizona State University.

I am conducting a research study on student veterans' career decision-making and college experience. I am inviting your participation, which will involve filling out a one-time, short, and anonymous survey. The online survey should only take 15-20 minutes to complete. You will be asked to reflect on your academic, educational, and support experiences at college. You will also be asked to reflect on your military experiences and potential psychological effects resulting from these experiences. These questions may make some participants uncomfortable. You have the right not to answer any question, and to stop participation at any time.

Your participation in this research is voluntary. There will be no penalty if you choose not to participate. You may skip questions if you wish. You may discontinue your participation in the study at any time and you may skip any items that you do not wish to answer. Your responses will be kept confidential.

Eligible participants must be veterans of the United States' Armed Forces. You must be 18 years of age or older to participate in the study and currently enrolled in a college or university program.

Your responses to the survey will be used to better understand veteran students' experiences in higher education and provide valuable information that may ultimately help improve the quality of veteran student services. No identifying information will be requested; your responses will be completely anonymous. The results of this study may be used in reports, presentations, or publications but your name will not be known.

Approved by ASU IRB: STUDY00006539
If you have any questions concerning the research study, please contact the research team at Kim.Mauss@asu.edu or sharon.kurpius@asu.edu or at (480) 965-6104. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Your consent to participate in this study is indicated by your clicking on the red arrow below to proceed to the survey.

Kimberly Borenstein-Mauss, M.Phil.Ed.
Counseling Psychology, College of Integrative Sciences and Arts
Arizona State University

Research Informed Consent – Gift Card Opportunity

Dear Participant:
I am a doctoral candidate under the direction of Professor Sharon Robinson Kurpius in the Counseling and Counseling Psychology Department at Arizona State University.

I am conducting a research study on student veterans' career decision-making and college experience. I am inviting your participation, which will involve filling out a one-time, short, and anonymous survey. The online survey should only take 15-20 minutes to complete. You will be asked to reflect on your academic, educational, and support experiences at college. You will also be asked to reflect on your military experiences and potential psychological effects resulting from these experiences. These questions may make some participants uncomfortable. You have the right not to answer any question, and to stop participation at any time.

Upon completion of the survey, you will have the opportunity to enter a raffle drawing for one of forty $25 Amazon.com gift cards (Odds of winning: 1 in 5!). You will be navigated to an external site to submit your raffle entry, for which only your email address is required for participation. Your email address will not be linked to your completed online survey responses. Gift card winners will be notified by the email address provided.

Your participation in this research is voluntary. There will be no penalty if you choose not to participate. You may skip questions if you wish. You may discontinue your participation in the study at any time and you may skip any items that you do not wish to answer. Your responses will be kept confidential. Online participation and raffle entry are limited to one entry per person.

Eligible participants must be veterans of the United States' Armed Forces. You must be 18 years of age or older to participate in the study and currently enrolled in a college or university program.

Your responses to the survey will be used to better understand veteran students' experiences in higher education and provide valuable information that may ultimately help improve the quality of veteran student services. No identifying information will be requested; your responses will be completely anonymous. The results of this study may be used in reports, presentations, or publications but your name will not be known.

Approved by ASU IRB: STUDY00006539
If you have any questions concerning the research study, please contact the research team at Kim.Mauss@asu.edu or sharon.kurpius@asu.edu or at (480) 965-6104. If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, contact the Chair of the Human Subjects Institutional Review Board, through the ASU Office of Research Integrity and Assurance, at (480) 965-6788.

Your consent to participate in this study is indicated by your clicking on the red arrow below to proceed to the survey.

Kimberly Borenstein-Mauss, M.Phil.Ed.
Counseling Psychology, College of Integrative Sciences and Arts
Arizona State University

APPENDIX F

DEMOGRAPHIC QUESTIONNAIRE

The following questions explore your background, military involvement, and college or university experiences. Please answer openly and truthfully.

Sex   Age (in years)
- o Male
- o Female
- o Other (please specify)

Racial/ethnic background
- o African American/Black
- o Asian American/Pacific Islander
- o European American/Caucasian/White
- o Hispanic American/Latino
- o Native American/Alaskan Native
- o Other (please specify)

- o Multiracial/ethnic (please specify)

Current relationship status
- o Single, never married
- o Single, no longer married
- o In a relationship, not living together
- o In a relationship, living together
- o Married
- o Separated
- o Widowed

Current residence
- o On campus
- o Off campus

Currently residing with (select all that apply)
- o Roommate
- o Members of family of origin (e.g., parents, siblings)
- o Significant other, partner, or spouse
- o Your child(ren)
- o No one (living alone)

Year in college
- o Undergraduate Freshman
- o Undergraduate Sophomore

- o Undergraduate Junior
- o Undergraduate Senior
- o Graduate Student

If not currently enrolled, are you a recent graduate?
- o Yes, within past 6 months
- o Yes, within past 1-2 years
- o Yes, within past 3-4 years
- o Yes, I graduated 5 or more years ago

What is your current GPA? [   ]

Current enrollment status
- o Full-time
- o Part-time

Have you declared your major?   Specify declared major here:
- o Yes   [   ]
- o No

What kind of career(s) are you currently thinking about pursuing?

[   ]

Was this career(s) something you did in the military or something similar to what you did in the military?
- o Yes
- o No

Did the military help to prepare you for the career(s) you are currently thinking about pursuing?
- o Yes
- o No

What is the highest degree you intend to obtain?
- o Less than a bachelor's degree
- o Bachelor's degree
- o Masters degree
- o Professional degree or doctorate

Do you have intentions to do one of the following? (Select none or all that apply)
- o Transfer to another college before graduating
- o Drop out temporarily

o Drop out permanently
o None of the above

Are you the first one in your family to pursue higher education?
o Yes
o No

Are you the first person in your family to pursue higher education?
o Yes
o No

How concerned are you about financing your college education?

Not at all		Somewhat		A great deal
❏	❏	❏	❏	❏

MILITARY INVOLVEMENT

Identify your service branch:
o Air Force
o Army
o Coast Guard
o Marine Corps
o Navy

How many times have you been deployed?

How long has it been since your most
recent deployment?

Individuals join the military for a variety of reasons. Please specify below why you
decided to enlist.

Please specify the location and length of your deployments.

	Location of deployment (country)	Length of deployment (in months)
Deployment 1		
Deployment 2		
Deployment 3		
Deployment 4		
Deployment 5		
Deployment 6		
Deployment 7		

What was your occupational specialty during each deployment (i.e., MOS/AOC, NEC/NOBC, or AFSC)?

	Occupational Specialty
Deployment 1	
Deployment 2	
Deployment 3	
Deployment 4	
Deployment 5	
Deployment 6	
Deployment 7	

Were you wounded, injured, assaulted, or otherwise hurt during your deployment(s)?
o Yes
o No

Did you sustain a Traumatic Brain Injury (TBI) while deployed?
o Yes
o No

Were you exposed to any chemical, biological, or radiological warfare agents during your deployment(s)?
o Yes
o No

Are you currently service connected for any kind of mental health concern?
o Yes
o No

Are you currently service connected for any kind of physical injury?
o Yes

o No

Do you still experience pain from injury/ies incurred during your deployment(s)?
- o Yes
- o No
- o Not applicable

Have you sought medical or mental health treatment at a VA Medical Center?
- o Yes, medical treatment
- o Yes, mental health treatment
- o Yes, both medical and mental health treatment
- o No

Do you currently receive disability through the VA Regional Office?
- o Yes for a medical issue(s)
- o Yes for a mental health issue(s)
- o Yes for both a medical and mental health issue(s)
- o Not at this time, but I recently applied; I am awaiting notification
- o No

Have you re-enlisted in the military?
- o Yes
- o No

Have you enlisted as a reservist?
- o Yes
- o No

Which of the following do you use to cope? (Select all that apply)
- o Over-the-counter medication
- o Prescription medication
- o Marijuana or other recreational drug
- o Alcohol
- o Tobacco
- o Therapy or counseling
- o Meditation
- o Prayer
- o Exercise
- o Other (please describe below)

If you selected "Other," please describe below what you do or use to cope.

How often do you use over-the-counter (OTC) medication to cope?
- o Never
- o Monthly or less
- o 2 to 4 times a month
- o 2 to 3 times a week
- o 4 or more times a week

How often do you use prescription medication to cope?
- o Never
- o Monthly or less
- o 2 to 4 times a month
- o 2 to 3 times a week
- o 4 or more times a week

How often do you use tobacco?
- o Never
- o Monthly or less
- o 2 to 4 times a month
- o 2 to 3 times a week
- o 4 to 6 times a week
- o Daily
- o Multiple times a day

How often do you have a drink containing alcohol?
- o Never
- o Monthly or less
- o 2 to 4 times a month
- o 2 to 3 times a week
- o 4 or more times a week

How many drinks containing alcohol do you have on a typical day when you are drinking? (1 drink = 12 oz. beer, 4-6 oz. wine, 12 oz. cooler, or a shot of liquor)
- o Not applicable; I never drink
- o 1 or 2
- o 3 or 4
- o 5 or 6
- o 7, 8, or 9
- o 10 or more

How frequently do you use recreational drugs (e.g., marijuana)?
- o Never
- o Fewer than 6 times per year
- o 1-3 times per month
- o Once a week

- o 2-3 times a week
- o 4-6 times a week
- o Daily

How frequently do you attend therapy or counseling?
- o Never
- o Fewer than 6 times per year
- o 1-3 times per month
- o Once a week
- o 2 or more times a week

How frequently do you meditate?
- o Never
- o Fewer than 6 times per year
- o 1-3 times per month
- o Once a week
- o 2-3 times a week
- o 4-6 times a week
- o Daily
- o 2 or more times per day

How frequently do you pray?
- o Never
- o Fewer than 6 times per year
- o 1-3 times per month
- o Once a week
- o 2-3 times a week
- o 4-6 times a week
- o Daily
- o 2 or more times per day

How frequently do you exercise?
- o Never
- o Fewer than 6 times per year
- o 1-3 times per month
- o Once a week
- o 2-3 times a week
- o 4-6 times a week
- o Daily
- o 2 or more times per day

How frequently do you engage in another coping activity [i.e., the one(s) you specified, above]?
- o Never

- Fewer than 6 times per year
- 1-3 times per month
- Once a week
- 2-3 times a week
- 4-6 times a week
- Daily
- 2 or more times per day

UNIVERSITY PROGRAMS AND SERVICES

Why did you choose to attend the university or college you are currently attending?

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How would you rate your university or college in providing services for veteran students? [from Poor (1) to Excellent (5)]

Poor		Satisfactory		Excellent
1	2	3	4	5

Are you aware of any special support programs on campus for veterans?
- Yes
- No

If yes, briefly list the special on-campus support programs for veterans of which you are aware at your college or university.

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To what extent have you utilized these resources?
o A great deal   o A lot   o A moderate amount   o A little   o Not at all

List the three (3) on-campus veteran support resources you have utilized most at your college or university and to what extent you have utilized them using the scale above (*A great deal* to *Not at all*)

(E.g., 1. Veteran student lounge, a moderate amount; 2. Benefits counseling, a lot)

Write "Not at all" if you have not utilized any on-campus veteran support resources.

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What kinds of programs or services have you utilized at your current college or university to foster your success as a student? (Select all that apply.)
- o Peer mentoring or support groups for military/veteran students
- o Individual counseling
- o Group counseling
- o Military/veteran student lounge or designated gathering place
- o Department or center for military/veteran programs
- o Tutoring services and academic assistance
- o Student club or organization for military/veteran students
- o Faculty mentoring
- o Other (list)

Mentoring
Please respond to following questions in relation to your experience at your current college or university.

Do you have an on-campus mentor(s)?
- o Yes
- o No

Is your on-campus mentor a: (Select all that apply if you have more than one mentor)
- o Faculty
- o Advisor
- o Peer
- o Career counselor or specialist
- o Administrator
- o Other

Is one of your on-campus mentors a service member or veteran?
- o Yes
- o No

Do you have an off-campus mentor(s)?
- o Yes
- o No

Is one of your off-campus mentors a service member or veteran?
- o Yes
- o No

APPENDIX G

AUTHOR PERMISSION FOR USE OF CAREER DECISION-MAKING

DIFFICULTIES QUESTIONNAIRE (CDDQ)

CDDQ34-icc-per.doc

Itamar Gati, Ph.D.
School of Education, Hebrew University, Jerusalem, ISRAEL

e-mail: itamar.gati@huji.ac.il   Fax: (+972)-2-5882084

If you agree to the following conditions, please sign the attached statement, indicate the number of copies you desire to reproduce for your goal, and send it to me by e-mail or fax it to the number above. When I receive the signed copy I will send you a copy of the CDDQ along with your copy of the signed permission slip that will allow you to reproduce the instrument. Please limit requests to no more than 1000 at a time. If you need more, please let me know. Permission expires one year after it is granted.

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I agree to the above conditions:

Name _____   Date: _____   e-mail: _____

Signature _____   Fax:_____   Tel:_____

Address_____

- -

Sincerely,

_____
Itamar Gati, Ph.D.
Permission is not granted without the signature of Itamar Gati in this space.

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CDDQ34-icc-per.doc

Itamar Gati, Ph.D.
School of Education, Hebrew University, Jerusalem, ISRAEL

e-mail: itamar.gati@huji.ac.il   Fax: (+972)-2-5882084

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5. Foreign translations must be back translated into English and approved by Osipow or Gati.

I agree to the above conditions:

(April 18, 2018)

Name: Kimberly Borenstein-Mauss   Date: 04/18/2018   e-mail: Kim.Mauss@asu.edu

Signature: _Kimberly Borenstein Mauss_   Fax: _____   Tel: 1+(480)331-1185

Address: Arizona State University
              Department of Counseling & Counseling Psychology
              446 Payne Hall
              Tempe, Arizona, USA
              85287-0811

Sincerely,

Itamar Gati   4/26/2018
Itamar Gati, Ph.D.

Permission is not granted without the signature of Itamar Gati in this space.

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APPENDIX H

CULTURAL CONGRUITY SCALE (CCS)

Military Version

Instructions: Using the scale provided, please rate the extent to which you agree with each statement below.

Not at all   A great deal
    1   2   3   4   5   6   7

1. I feel that I have to change myself to fit in at school.

2. I try not to show the parts of me that are "military" based.

3. I often feel like a chameleon, having to change myself depending on the military history of the person I am with at school.

4. I feel that my military background is incompatible with other students.

5. I can talk to my peers at school about my military experiences.

6. I feel I am leaving my military values behind by going to college.

7. My military values are in conflict with what is expected at school.

8. I feel that my language and/or appearance make it hard for me to fit in with other students.

9. My military and school values often conflict.

10. I feel accepted at school as a veteran or service member.

11. As a service member or veteran, I feel as if I belong on this campus.

APPENDIX I

MENTORING SCALE

Please respond to the following questions in relation to your experience at your current college or university.

1. There have been university professors/instructors/counselors who encouraged my educational efforts.
   No one   One person   Two or more persons

2. There have been university professors/instructors/counselors who have taken me "under their wing."
   No one   One person   Two or more persons

3. There is someone on campus whom I consider my mentor.
   No one   One person   Two or more persons

4. There is someone on campus who cares about my educational success.
   No one   One person   Two or more persons

5. There is someone on campus with whom I identify as a role model.
   No one   One person   Two or more persons

6. To what extent has this person(s) helped you adjust to university life?
   Not at all   Very Much
     1   2   3   4   5

APPENDIX J

DAILY HASSLES FOR COLLEGE STRESS

Following are events that may be stressful for college students. Please indicate how stressful each is for you using the 5-point scale ranging from (1) Not at all stressful to (5) Highly stressful.

		Not at all				Highly
1.	Parking problems around campus	1	2	3	4	5
2.	Too little time	1	2	3	4	5
3.	Too little money	1	2	3	4	5
4.	Getting ready in the morning	1	2	3	4	5
5.	My weight	1	2	3	4	5
6.	Not enough time to exercise	1	2	3	4	5
7.	Conflicts with roommate	1	2	3	4	5
8.	Poor quality of teaching	1	2	3	4	5
9.	Constant pressure of studying	1	2	3	4	5
10.	Not enough close friends	1	2	3	4	5
11.	Too little intimacy	1	2	3	4	5
12.	Getting to class on time	1	2	3	4	5
13.	Transportation hassles	1	2	3	4	5
14.	Quality of meals	1	2	3	4	5
15.	Future plans	1	2	3	4	5
16.	Work-related stressors	1	2	3	4	5
17.	Tensions in love relationships	1	2	3	4	5
18.	Conflict with family	1	2	3	4	5
19.	Missing my family	1	2	3	4	5
20.	No mail	1	2	3	4	5
21.	Being lonely	1	2	3	4	5
22.	Being unorganized	1	2	3	4	5
23.	Too little sleep	1	2	3	4	5
24.	Taking tests	1	2	3	4	5
25.	Writing papers	1	2	3	4	5
26.	Domestic responsibilities	1	2	3	4	5

	Not at all				Highly
27. Worrying about grades	1	2	3	4	5
28. Peer pressure to drink, smoke or do drugs	1	2	3	4	5
29. Having to repay student loans	1	2	3	4	5

APPENDIX K

PTSD CHECKLIST FOR DSM 5 (PCL-5)

Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
1. Repeated, disturbing, and unwanted memories of the stressful experience?	0	1	2	3	4
2. Repeated, disturbing dreams of the stressful experience?	0	1	2	3	4
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?	0	1	2	3	4
4. Feeling very upset when something reminded you of the stressful experience?	0	1	2	3	4
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?	0	1	2	3	4
6. Avoiding memories, thoughts, or feelings related to the stressful experience?	0	1	2	3	4
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?	0	1	2	3	4
8. Trouble remembering important parts of the stressful experience?	0	1	2	3	4
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?	0	1	2	3	4

In the past month, how much were you bothered by:	Not at all	A little bit	Moderately	Quite a bit	Extremely
10. Blaming yourself or someone else for the stressful experience or what happened after it?	0	1	2	3	4
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?	0	1	2	3	4
12. Loss of interest in activities that you used to enjoy?	0	1	2	3	4
13. Feeling distant or cut off from other people?	0	1	2	3	4
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?	0	1	2	3	4
15. Irritable behavior, angry outbursts, or acting aggressively?	0	1	2	3	4
16. Taking too many risks or doing things that could cause you harm?	0	1	2	3	4
17. Being "superalert" or watchful or on guard?	0	1	2	3	4
18. Feeling jumpy or easily startled?	0	1	2	3	4
19. Having difficulty concentrating?	0	1	2	3	4
20. Trouble falling or staying asleep?	0	1	2	3	4

APPENDIX L

SENSE OF COHERENCE SCALE (SOC-13)

Instructions: Please respond to the following questions using the scale provided.

1. Do you have the feeling that you don't really care about what goes on around you?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very seldom   Very often or never

2. Has it happened in the past that you were surprised by the behaviour of people whom you thought you knew well?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Never happened   Always happened

3. Has it happened that people whom you counted on disappointed you?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Never happened   Always happened

4. Until now your life has had:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

No clear goals   Very clear goals
or purpose at all   and purpose

5. Do you have the feeling that you're being treated unfairly?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   Very seldom or never

6. Do you have the feeling that you are in an unfamiliar situation and don't know what to do?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   Very seldom or never

7. Doing the things you do every day is:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

A source of deep   A source of pain
pleasure and   and boredom
satisfaction

8. Do you have very mixed-up feelings and ideas?

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Very often   Very seldom or never

9. Does it happen that you have feelings inside you would rather not feel?
            1   2   3   4   5   6   7
    Very often   Very seldom or never

10. Many people – even those with a strong character – sometimes feel like sad sacks (losers) in certain situations. How often have you felt this way in the past?
            1   2   3   4   5   6   7
    Never   Very often

11. When something happened, have you generally found that:
            1   2   3   4   5   6   7
    You overestimated   You saw things in the
    or underestimated   right proportion
    its importance

12. How often do you have the feeling that there's little meaning in the things you do in your daily life?
            1   2   3   4   5   6   7
    Very often   Very seldom or never

13. How often do you have feelings that you're not sure you can keep under control?
            1   2   3   4   5   6   7
    Very often   Very seldom or never

APPENDIX M

AUTHOR PERMISSION FOR USE OF SOC-13

Center on Salutogenesis   Date   2017-05-16

Doctoral Candidate Kimberly Borenstein-Mauss
Arizona State University, Counseling and Counseling Psychology
Tempe, AZ 85287-0811
United States of America
(Kim.Mauss@asu.edu)

Dear Doctoral Candidate Kimberly Borenstein-Mauss,

I hereby grant permission to use the 13-item version of the Sense of Coherence
(Orientation to Life) Questionnaire, originally found in Unraveling the mystery of health:
How people manage stress and stay well, by Aaron Antonovsky (Jossey-Bass Publishers,
1987), for use in your study aiming to explore the experiences of veterans in higher
education and assess the influence of variables that may facilitate campus connections,
experiences of traumatic and academic stress, and of career-related choice.

The permission is granted upon fulfillment of the following conditions:

1. You may not redistribute the questionnaire (in print or electronic form) except for
   your own professional or academic purposes and you may not charge money for
   its use. If administered online, measures should be taken to insure that (a) access
   to the questionnaire be given only to participants by means of a password or a
   different form of limited access, (b) the questionnaire should not be
   downloadable, and (c) access to the questionnaire should be time-limited for the
   period of data collection, after which it should be taken off the server.
   Distributing the questionnaire to respondents via email is not permitted. Finally,
   any electronic version of the questionnaire which you may have for your research
   purposes (other than distribution to research participants) should be in PDF
   format including password protection for printing and editing.
2. The questionnaire is intended for research purposes only, and may *not* be used for
   diagnostic or clinical purposes. By "diagnostic or clinical" it is meant that the
   SOC score cannot be the basis of any kind of physical, mental, cognitive, social or
   emotional diagnosis, assessment or treatment of the respondent, and cannot direct
   therapeutic or medical decisions of any kind.
3. In any publication in which the questionnaire is reprinted, reference to the
   abovementioned source should be given, and a footnote should be added saying
   that the questionnaire is reprinted with the permission of the copyright holder.
4. The copyright of the Sense of Coherence Questionnaire, in all languages and
   versions, remains solely in the hands of Dr. Avishai Antonovsky.

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If possible, I would appreciate receiving a copy of any forthcoming paper concerning a study in which the SOC questionnaire has been used, for private use in building an SOC publication database.

Sincerely,

On behalf of Dr. Avishai Antonovsky
Monica Eriksson, PhD, Associate Professor
Department of Health Sciences, University West
Center on Salutogenesis, Trollhättan, Sweden

Avishai Antonovsky, PhD
The Open University, Israel

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