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The purpose of this study was to test a model of veterans' college adjustment that demonstrated how combat exposure can lead to psychological distress and a lack of empathy and trust, how those variables interact and affect social support and classroom interactions, and how all the variables effect college adjustment self-efficacy. The study quantified the prevalence of PTSD, anxiety, depression, and stress in the student veteran population, finding that rates were lower than in a previous study on student veterans and on par with the active duty military. Although the proposed SEM model did not fit the data, subsequent stepwise regressions found that combat exposure was significantly inversely associated with trust and empathy, and directly correlated with psychological distress. Psychological distress was found to inversely affect trust, empathy, social support, alienation in the classroom, and feeling connected to other students and faculty. Trust and empathy scores were found to affect social support, and combat exposure and psychological distress were found to affect social support through their influence on trust and empathy. Social support was found to have the largest influence on college self-efficacy adjustment scores. In addition, the study found that gender affected the outcomes of the model. Implications of these results were discussed, along with limitations to the study and possible future research

FROM COMBAT TO CLASSROOM: AN EXAMINATION OF

COMBAT TRAUMA'S EFFECTS ON MILITARY

VETERAN'S RELATIONSHIPS AND

ADJUSTMENT TO COLLEGE

by

Steven J. Boul

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Approved by

_____
Committee Chair

To all the men and women who choose to put on the uniform and serve their country with

quiet honor and distinction: The nation owes you much more than we give.

APPROVAL PAGE

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CHAPTER I

INTRODUCTION

Rationale for the Study

Colleges and universities in the United States are seeing an influx of military personnel to their campuses, including active duty, reservists, National Guard, and veterans. This is not surprising; one of the top reasons cited for joining the military is to obtain veterans education benefits (Farrell, 2005). A recent study found that 270,666 veteran students used new veteran education benefits in the 2009-2010 academic year (Rhinehardt & Beck, 2010). This influx was illustrated in an article in the Bellingham Herald (Relyea, 2010) noting that several universities in Washington State experienced a 40 percent increase in veteran enrollment between 2008 and 2010. The veteran population attending community and technical colleges in the state rose 53 percent during this same period. The Institute for Learning and Understanding, a group that helps organizations develop programs tailored to the needs of veterans, estimates that 95 percent of active duty personnel who are enrolled in the new GI bill will pursue higher education at the conclusion of their active duty commitment (2009).

For many military personnel, the end to their active duty commitment may come sooner than expected. With the war in Iraq over, and the war in Afghanistan winding

down, the military is faced with budget cuts that would, according to a plan released by Pentagon leaders, bring about the discharge of 100,000 personnel over the next five years (Cassata, Baldor, & Dozier, 2012). This could lead to a substantial increase in higher education enrollment by veterans.

Not only are veterans attending college in increasing numbers, they are surpassing the academic achievements of their non-military peers. A North Carolina task force examining student veterans found that 75 percent of veterans enrolled in colleges and universities completed their degree and that, overall, veteran students earned better grades than nonveterans (Rhinehardt & Beck, 2010). This completion rate compares to a 53 percent average completion rate in six years for traditional students at four year institutions (Marklein, 2009). In an environment of ever shrinking college budgets, attracting students who can succeed and have the means to pay for their education is vitally important. Unfortunately, little is known about the military population attending college or their specific needs; information that is critical in enabling schools to provide service for this population and to attract them to institutions of higher learning in the first place.

Nominal research has been done regarding veterans and their transition to college. Historically research on veterans returning to college has focused on how veterans performed academically compared to non-veterans, the effects of military service on attaining education, and the difference military service had on earning potential (Angrist, 1993; Cohen, Warner, & Segal, 1995; Lyons, Kremen, Franz, Grant, Brenner, et al.,

2006; MacLean, 2005; Teachman & Call, 1996). None of these studies examined the psychological needs of veterans as they returned to college, nor of their ability to adjust to college life. The purpose of this study is to start to address this gap by examining the prevalence of the most common psychological issues affecting combat veterans; how psychological distress, empathy, and trust issues affect relationships at home and at school; the role gender plays into these factors, and how the combination of these factors affect a veteran's adjustment to college. Why consideration of these factors is relevant to colleges is detailed in the following sections.

      Psychological and physical effects of combat. For over 14 years the U. S. military has been engaged in wars in Afghanistan and Iraq, putting a severe strain on the all-volunteer military. More than 2 million military personnel were deployed to Iraq and Afghanistan through 2010 (Jaroncyk, 2010) Many military personnel currently serving in both active and reserve components have experienced multiple deployments to these war zones. Unfortunately, multiple deployments frequently have a detrimental effect on the psychological health of many of our returning soldiers, marines, and airmen. Of the over 900,000 Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) veterans discharged since the beginning of the conflict to 2007, approximately 378,000 (42 percent) sought psychological treatment from the Veterans Administration. Of those seeking treatment, 170,000 (45 percent) received an initial diagnoses of posttraumatic stress disorder (PTSD). This inundation of diagnosed PTSD cases resulted in a 70 percent increase in veterans seeking treatment for (PTSD) between June 2006 and June

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2007 (Nayback, 2008). A more recent report by the department of Veterans Affairs estimates that as many as 95 percent of veterans returning from combat duty in Afghanistan and Iraq exhibit some symptoms of PTSD (Military Report, 2011). When depression and anxiety issues are also considered, researchers estimate that approximately 20 to 30 percent of combat veterans will come back with some type of serious psychological injury (Church, 2009; Jaroncyk, 2010; Kaplan, 2008).

Psychological injuries are not the only barrier for military personnel transitioning to civilian life. Due to advances in field medicine and troop extraction, the ratio of injuries to deaths is 16:1. This means that many now live who would have died from their wounds in previous wars, despite the loss of limbs. The number of amputations resulting from the engagements in Iraq and Afghanistan by 2009 (roughly 6 percent) already exceeded the number reported during the 11 years of the Vietnam War (Church, 2009). In addition, traumatic blast injury (TBI), which has come to be called the signature injury of these conflicts, was reported by 32 percent of 2525 discharged Army infantry soldiers (Church, 2009). These figures illustrate an increased need for special services on college campuses to help veterans who may suffer from both physical and psychological injuries as a result of their service.

Veterans and treatment. Dealing with the manifestations of physical and psychological injuries incurred during war is not the exclusive responsibility of the military or the Veterans Administrations; it falls to anyone who treats these veterans in a variety of healthcare, social services, and educational settings. Nationally 225, 000

service members leave military service each year (Rhinehardt & Beck, 2010). Studies show that those who had a positive result when screened for a mental health concern were significantly more likely to leave the service the year after deployment than those who did not manifest symptoms of psychological distress (Hoge, Auchterlonie, & Milliken, 2006; Kaplan, 2008). Of those with psychological injuries, approximately 70 percent will not seek treatment from the Department of Defense (DoD) or the Veterans Administration (VA) (Kaplan, 2008), a result of concerns related to possible stigmatization and other perceived barriers to seeking mental health care (Hoge et al., 2004). With most veterans with psychological injuries not utilizing DoD or VA treatment centers, a majority of service members are either going untreated or seeking treatment elsewhere, including college counseling centers. Kaplan (2008) called it a "gathering storm of PTSD and depression" (p.1) and encouraged mental health providers to become familiar with military culture and aware of the issues with which service members are dealing in order to address this maelstrom.

Veterans and college. College administrators are just beginning to realize that changes on campus are necessary in order to accommodate the needs of incoming veterans. A recent article regarding Iraq and Afghanistan veterans stated that veterans are not satisfied with the level of support they receive from college administrations, faculty, or fellow students (Kinzie, 2010). Issues contributing to this lack of satisfaction were highlighted in two qualitative studies on Iraq and Afghanistan veterans. These studies, which assessed the experience of combat veterans transitioning to college, found a

plethora of issues, including strained relationships, inability to relate to fellow students, balancing work and school, ambivalent relationships with faculty members, health issues including disabilities, PTSD and other mental health issues, anger issues, identity integration issues, and challenges with preparedness for school (DiRamio, Ackerman, & Mitchell, 2008; Rumann & Hamrick, 2010). This is important information for universities to consider in their attempts to recruit and retain veteran students. However, there is little data currently available to help college administrators determine which of these issues should be prioritized in the allocation of institutional resources.

Statement of the Problem

There is dearth of information associated with veterans' transition to college. A search of the literature yielded few studies tracking student veterans and their psychological/physical issues. One of the two quantitative studies that examined these issues found that almost half of the 525 veteran students who took the survey contemplated suicide at some point, and that 20 percent had planned to kill themselves (Rudd, Goulding, & Bryan, 2011). This compares with 6 percent of nonveteran college students who reported seriously considering suicide. Of the 525 veteran respondents, 7.7 percent reported a suicide attempt, compared to only 1.3 percent of college students overall (Rudd et al., 2011). In addition, 50 percent of the veteran students indicated symptoms of moderate to severe PTSD, 33 percent had severe anxiety disorders, and 25 percent were found to be dealing with severe depression (Rudd et al., 2011). If these numbers are typical for colleges across the country there is a huge need for colleges to

adapt services to meet the needs of veteran students. This study will attempt to verify the findings in the Rudd (2011) study, thus giving school administrators some much needed information on their veteran population.

Many universities do not record students' military status and therefore are limited in their ability to track veteran's psychological issues. For example, this author asked personnel at four nearby colleges and university counseling clinics whether their intake forms addressed clients military status, and if so whether they had been in combat. None of the clinics had intake forms that did so. Without this information there is no way to assess the types of issues for which student veterans may seek help or the magnitude of the problem. It is hoped that the results of this study will demonstrate how important it is to assess for this type of information when dealing with student veterans.

The lack of research on veterans' issues while transitioning to college also results in a lack of data on the impact of individual and environmental factors on student veterans' adaptation to college, as well as information on how those factors interact. Although there are models of student adaptation to college for traditional and nontraditional students, only one has focused on combat veterans. Research models provide a conceptual framework that illustrates how the factors interact, and can include elements from theory, empirical data, and practitioners' experience (Earp & Ennett, 1991). Models also help researchers take into consideration the impact of individual and environmental factors, providing a more complete picture of the process under study (Earp & Ennett, 1991). This study proposes a model of combat veterans' transition to

college that will demonstrate both the interaction of factors affecting veteran students and their relative effect on college adjustment. Because the proposed model is derived from an existing nontraditional student transition model, a brief examination of the existing model will be provided to illustrate both its strengths and weaknesses when used to evaluate combat veterans returning to college, and why a new model is necessary.

The nontraditional student transition model. Although there is extensive literature on the traditionally aged student's (18-24 years old) transition to college, the transition for a traditional aged student leaving home for the first time is much different than that of a military veteran who may have traveled extensively, interacted with different cultures, and participated in combat operations. In addition, veteran students are more likely to be married (53 percent), more emotionally mature, and working to support their families (DiRamio, Ackerman, & Mitchell, 2008; Rumann & Hamrick, 2010). In light of these factors veteran students typically demonstrate more similarities to nontraditional students than to the typical traditional student.

Nontraditional students differ from traditional students in several ways. For one, nontraditional students show less involvement in clubs and organizations, as well as less involvement in college sponsored events (Graham & Donaldson, 1999). Kasworm (2003) found that the majority of nontraditional students are women, most work and have families, and due to these other obligations, most attend college part-time. A survey conducted by the National Survey of Student Engagement found that first year veteran students spent twice the number of hours working and six times as many hours on

dependent care than their nonveteran peers (Kinzie, 2010). The nontraditional student and

the traditional student populations also differ in their approach to the classroom as well as

in their day-to-day responsibilities and activities. For the traditional aged student, social

and peer events have greater significance, while nontraditional students prioritize

attending classes, doing homework (Dill & Henley, 1998), and generally put more effort

into learning (Kasworm, 2005). In addition Kasworm (2010) found that nontraditional

students seek connected classroom experiences, and that much of their interaction with

faculty and other students occur inside the classroom.

Donaldson and Grahams (1999) designed a model of college outcomes for

nontraditional students which include their previous history and the way they interact

with faculty and other students. This model (see figure 1) addresses six elements related

to the nontraditional students' undergraduate experiences: prior experiences and personal

biographies, psychosocial factors and value orientations, student cognitions, the

connecting classroom, the life world environment, and outcomes. The model is an open

one in that it takes into account the nontraditional students previous learning and

experiences, the changes that occurred because of these experiences, other influences in

the nontraditional student's life, and the way these issues affect the outcomes of college

(Donaldson & Graham, 1999; Philibert, Allen, & Elleven, 2008).
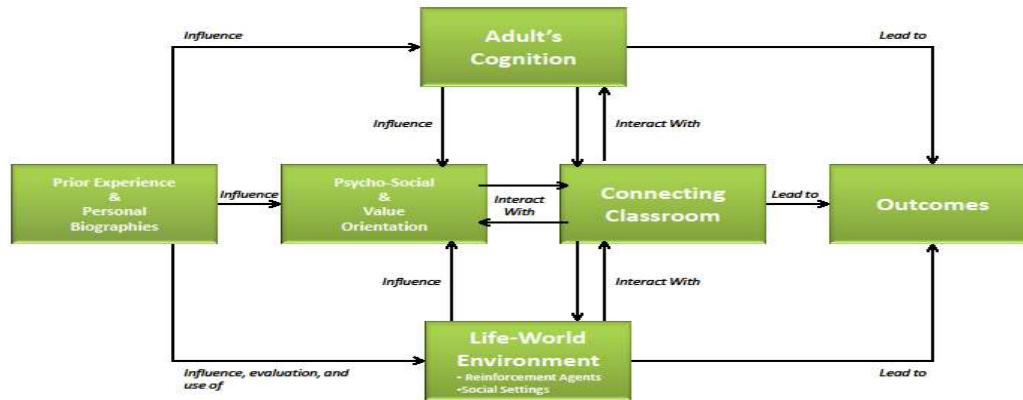
Figure 1. Donaldson and Graham's Model of College Outcomes for Nontraditional Students. Adapted from "A Model of College Outcomes for Adults" by J. F. Donaldson and S. Graham, 1999, *Adult Education Quarterly, 50,* p28. Copyright 1999 by Sage Publishing. Adapted with permission.

This differs from models of college outcomes that look only at college environmental factors without taking into account factors outside that environment, thus assuming outside factors play little or no role in the nontraditional student's transition to college (Kasworm, 1995). Donaldson and Graham (1999) state that their model is intended to be both theoretical and practical, allowing researchers to bring different elements into perspective to examine different parameters of the nontraditional student's college experience. Definitions for the different variables in the model can be found at the end of this chapter.

Adaptation of the model. By adapting Donaldson and Graham's (1999) model, a model specific to veterans is proposed for this study. As mentioned in previous sections, combat veterans often bear physical and psychological injuries as a result of their service.

These injuries affect their relationships, both at home and at school (Benotsch, Brailey, Vasterling, Uddo, & Constans, 2000; DiRamio et al., 2008). Exposure to combat also changes the way soldiers view and interact in the world, making it difficult for them to empathize and trust others (Rumann, & Hamrick, 2010; Shay, 2009). A model that seeks to explain a combat veteran's transition to college must take these factors into account.

Donaldson and Graham's model is based on a nontraditional student who is free from psychological distress. The only mention they make of possible psychological issues is within the psychosocial value orientation block in which they state, "The absence of psychological distress, achieved through having supportive family and friends, possessing adequate study skills, and having clear purpose for participation, has been connected with the nature of the nontraditional students' collegiate experience and their retention" (Donaldson & Graham, 1999, p.29). The absence of psychological distress may be true for the non-traumatized student, but is not necessarily true for the survivors of traumatic events, especially long-term trauma. Therefore, any model adapted for combat veterans must take into consideration the effects of combat trauma on the individual and on his or her relationships.

The model proposed for this study, the Combat Soldiers Transition to School Model (CoSTS) (fig. 2), depicts how exposure to combat affects both psychological and cognitive variables, and how these variables apply to college adjustment thru the variables of social support and the connections in the classroom. The variables chosen

were derived from previous studies which focused on combat veterans, as well as the author's experience working with soldiers and their families.
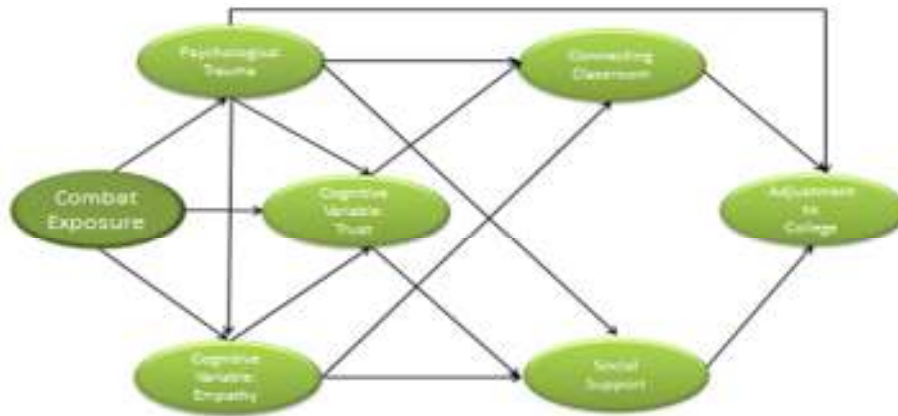
Figure 2. Combat Soldiers Transition to School Model (CoSTS)

As can be seen in Figure 2 the variable for the previous experience block of Donaldson and Grahams (1999) model to be examined is the level of combat exposure. The degree of psychological symptoms is the psychosocial variable, and trust and empathy are the cognitive variables. The level of perceived social support is the life-world environment variable, and adjustment to college is the outcome variable. The connecting classroom block will measure the degree to which veteran students feel connected to/alienated from faculty and other students. Figure 2 illustrates how the cognitive variables of trust and empathy have been moved to take into account their effect on both social support and on relationships within the classroom. There is also a path directly from psychological distress to college adjustment to allow for effects on

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college adjustment that occur thru non-relational issues. A path from the psychological trauma variable to the trust and empathy variables accounts for the finding of correlations between psychological distress, low empathy, and trust issues. The following sections further explain the importance of these variables to the model.

  Combat exposure and psychological symptoms. Donaldson and Graham's model (1999) depicts the influence of past life experience on a student's ability to adjust to college. For combat veterans, one experience that separates them from other nontraditional students is their combat experience. In a study examining the effects of combat exposure on student veterans the authors found that the degree of combat exposure was significantly correlated with PTSD symptoms (Elliott, Gonzalaz, & Larsen, 2011). Likewise, both Miller and fellow researchers (Miller, Wolf, Martin, Kaloupek, & Keane, 2008) and Hoge et al. (2004) found a linear relationship between the amount of combat exposure and the prevalence of PTSD symptoms. Higher levels of combat exposure also have been linked in several studies to an increase in mental health concerns, including depression and anxiety (Armistead-Jehle, Johnston, Wade, & Ecklund, 2011; Orcutt, Erickson, & Wolfe,2004; Sharkansky et al, 2000). In addition, the experience of combat can change the way veterans look at and understand the world, as well as the way they interact and connect with others (Rumann, & Hamrick, 2010).

  Another issue affecting soldiers that has begun surfacing in research recently is one of moral injury. Moral injury has been defined as "perpetrating, failing to prevent, bearing witness to, or learning about acts that transgress deeply held moral beliefs and

expectations" (Litz et al., 2009. pg 700). The urban context of the Iraq and Afghanistan wars; an unmarked enemy, threats from civilians including improvised explosive devices (IED), and the guerilla war nature of the wars in Iraq and Afghanistan, have placed our soldiers and marines at a higher risk for being put into ethical situations in which they do not know how to respond (Litz et al., 2009). Longer and more frequent deployments have increased the losses suffered and the anger felt by the soldiers fighting there. Lintz and colleagues (2009) quote a military study conducted in theater in 2008 that found that 31 percent of soldiers responding had cursed at or insulted civilians, 5 percent reported mistreating civilians, and 11 percent damaged property for no reason. Much worse tragedies have been reported. Soldiers who find themselves in these situations often feel shame, guilt, self-loathing, and a feeling of being damaged in some way (Nash & Litz, 2013).

Moral injury has been thought of as a primary psychological trauma which, while sharing some components of PTSD, may not be fully encompassed by a PTSD definition (Kopacz, 2014). Many of the signs of moral injury mimic classic PTSD symptoms, including social withdrawal, alienation, trust issues, depression, anxiety, and anger issues (Nash & Litz, 2013). Exposure to atrocities does not appear to affect the hyperarousal component seen in normal PTSD case, but sufferers do demonstrate the re-experiencing and avoidance clusters (Litz et al., 2009). Researchers believe that this difference is due to the fact that normal PTSD is induced by a life threatening event that triggers the fear response, whereas the avoidance and withdrawal in moral injury cases is due to shame

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and guilt (Litz et al., 2009). Different treatment strategies would be necessary to treat the different causes of the PTSD symptoms. More complicated cases involve situations where there was both a life threatening event and some type of atrocity was committed, making it extremely difficult to separate the two issues. What researchers have found is that in the cases of chronic PTSD, the association between reports of being involved or witnessing an atrocity and PTSD is significantly stronger than just the global reports of combat exposure and PTSD, giving researchers a better understanding of how service members may develop PTSD symptoms (Litz et al., 2009).

Psychological trauma and college. Although no research to date measures the effects of combat-related psychological impairment on adjustment to college, one recent study of student veterans found a significant correlation between psychological distress and feelings of alienation by student veterans (Elliott et al., 2011). Other studies measuring victims of childhood sexual trauma have found a correlation between exposure to higher levels of cumulative trauma and negative college adjustment. One such study found that greater previous trauma exposure was related to an increase in negative academic and personal-emotional adjustment issues (Banyard & Cantor, 2004). Another study that followed 210 freshmen through four years of college found that victims of childhood sexual assault were significantly less likely to remain enrolled than non-victims as each semester progressed (Duncan, 2000). In addition, participants in this study who left college prematurely reported significantly higher levels of PTSD symptomology than those who remained for four years. These findings suggest the need

for inclusion of psychological distress as a significant factor in the model for those exposed to severe psychological trauma.

Trust. A significant cognitive difference between combat veterans and other nontraditional students is that the veterans often have a hard time trusting nonveterans. Dr. Jonathan Shay (2009), a psychiatrist who has worked with veterans at the VA for over 20 years, states that the greatest concern for combat veterans is that their capacity for social trust has been destroyed. He states, "What is left when social trust has been destroyed is not a vacuum, not nothing, but the active and potentially quite dangerous expectancy of harm, exploitation, and humiliation from every person or institution that they encounter" (p 289). Trust enables cooperative behavior, and without trust one cannot have positive interpersonal relationships (Rousseau, Sitkin, Burt, & Camerer, 1998). Individuals who are more trusting have been found to be happier, more ethical, more desirable to have as a close friend, and better adjusted to college, whereas those who lack trust were in greater distress and were more maladjusted (Gurtman, 1992; Rotter, 1980). Distrusting individuals also reported a variety of problems, not only in trusting others, but also in competiveness, envy, resentfulness, vindictiveness, and a general lack of feeling connected with others (Gurtman, 1992). Thus the loss of trust that combat veterans often experience affects both their intimate relationships with family and friends and their ability to interact socially with others.

Empathy. Empathy, the ability to sense and think about another person's inner states (Hanson & Mendius, 2009), is a necessary and vital part of interpersonal

relationships. Empathy deficits have been correlated with increased aggressive and antisocial behaviors, psychopathy, animal cruelty (Thompson & Gullone, 2008), and decreased relationship satisfaction (Cohen & Strayer, 1996; Dadds et al., 2009; Jolliffe & Farrington, 2004, 2007; Lovett & Sheffield, 2007). On the other hand, the perceptions of a partners empathy was found to increase relationship satisfaction and stability in couples (Busby & Brandt, 2008; Waldinger, Schulz, Hauser, Allen, & Crowell, 2004), as well as improving the use of dyadic coping strategies (Levesque, Lafantaine, Caron, Flesh, & Bjornson, 2014). In a study of young nontraditional students Skoe (2010) found that the ability to take another person's perspective positively predicted care-based moral reasoning levels, and was negatively associated with personal distress levels. Thus it would appear that empathy is vital not only for our personal relationships, but also for our personal wellbeing.

     Social support. Social support is an essential tool in warding off stress, depression, and PTSD symptoms (Diwan, Jonnalagadda, & Balaswamy, 2004; King, King, & Vogt, 2003; Needham, 2008; Rosario, Salzinger, Feldman, & Ng-Mak, 2008; Ting, Jacobson, & Sanders, 2008). Females in particular have been found to use social support to help cope with stressful situations (Dalgard et al., 2006; King et al., 2003; Wareham, Fowler, & Pike, 2007). A lack of a supportive environment has been shown to have detrimental effects on psychological well-being, as demonstrated in a 2003 study of UN peacekeepers which found that negative or hostile social environments experienced by soldiers after returning home were associated with increased PTSD symptoms and a

negative adjustment to civilian life (Dirkzwager, Bramsen, & van der Ploeg, 2003). Social support is also important in reducing psychological distress in periods ranging from 2 months to 4 years after the exposure to a traumatic event (Johansen, Wahl, Eilertsen, & Weisaeth, 2007; Johnson, Canetti, Palmieri, Galea, Varley, & Hobfell, 2009; Tural, Coşkun, Önder, Çorapçioğlu, Yıldız, et al., 2004).

The connecting classroom and alienation in the classroom. Kasworm (2010) found that nontraditional students seek connections in the classroom experience, and that most of their college experience and interaction with faculty and other students occur inside the classroom. For many veterans, making these connections is difficult. Adapting to a new culture, with values that are different than the military's, make it harder for veterans to fit in (Balkoski, 2009). Recent studies of veteran students indicate that many veterans feel alienated in the classroom, with the attitudes of other students and faculty forming the greatest barrier to assimilating into the community (Balkoski, 2009; Burnett & Segoria, 2009). Thus military veterans often feel most comfortable with other veterans (DiRamio et al., 2008) because they do not feel judged for their military service. Additional strains when connecting with other students and faculty include psychological trauma such as PTSD and anxiety, physical trauma such as a traumatic brain injury, and anger issues (Church, 2009; DiRamio et al., 2008; DiRamio & Spires, 2009: Elliot et al., 2011).

Gender issues. Women now make up approximately 17 percent of active duty troops and 20 percent of National Guard and reserve troops in the United States military

(Hopkins-Chadwick, 2006). While many women combatants have found service in the military liberating from the restraints of societies gendered roles, they have also found that these gains are often short lived and that their image as "feminine " females have been greatly tarnished (Afshar, 2003, Sunindyo, 1998, Vazquez 1997). In addition, as their roles in active combat operations are increasing, women in the military find themselves facing not just the hardships of war and combat, but additional hardships that men do not face that place them at an increased risk for psychological distress.

Researchers have found that women in general report higher percentages of depression and PTSD than men, and they point to several areas in which women are especially vulnerable. The Department of Veterans Affairs National Center for PTSD website (2014) cited findings that indicate that 1 in 3 women will experience a sexual assault, and that women are more vulnerable to sexual molestation, physical abuse, childhood parental neglect, and domestic violence. A 1996 Department of Defense survey on sexual harassment found that 78 percent of female soldiers on active duty complained of being sexually harassed, and that six percent reported actually being raped (Hay & Elig, 1999). Sexual harassment has been shown to have negative outcomes relating to work performance, psychological health, and physical health (Pryor, 1995). A recent study of women veterans found that women were ten times more likely to report sexual harassment after a deployment (Street et al., 2015). Women have been found to be more vulnerable to these interpersonal stressors, resulting in higher levels of depression, anxiety, and PTSD (Department of Veterans Affairs National Center for PTSD, 2014;

Vogt, Pless, King, & King, 2005). Street and his fellow researchers found that the risk of suicide actually tripled for deployed women compared to non-deployed women, while deployment only doubled the suicide risk for their male counterparts, in part due to these extra interpersonal stressors (Street et al., 2015).

Female warriors transitioning to the civilian sector also face additional struggles. Even as the military struggles for gender equality, research has found that there is tendency world-wide that as soon as the conflict is over women are pushed back into their previous domestic sphere (Sunindyo, 1998). The military feminine warrior identity that was valued by the military is not one that is understood or valued by the civilian population (Baechtold & Sawal, 2009). Returning female veterans are faced not only with assimilating back into civilian culture, but of having to socially construct a new identity that is specifically related to gender. While male soldiers are often greeted as heroes, female soldiers are expected to return to a model of femininity that no longer fits who they are. These factors make adjustment even harder for female veterans than it is for their male counterparts.

Adjustment to college. GPA does not define the total of academic success for a student, nor does it indicate how the student is adjusting to the college environment. Although veteran students are succeeding academically, recent qualitative studies have revealed that veterans do not feel supported or understood by faculty or fellow students (DiRamio et al., 2008; Rumann & Hamrick, 2010). Some veterans indicated that they did not feel they had the necessary skills to succeed, while others talked of the effects of

lingering stress and changing roles (DiRamio et al., 2008; Rumann & Hamrick, 2010). All of these factors can affect a student's belief in his or her ability to accomplish the goal of matriculating; in other words their self-efficacy. Bandura (1993) found that self-efficacy beliefs affect a student's motivation, their willingness to persevere on difficult tasks, and their use of acquired skills and knowledge. One study examining the effects of stress and self-efficacy on academic success found that self-efficacy was the single strongest predictor of academic success (Zajacoua, Lynch, & Espenshade, 2005). Self-efficacy beliefs are also critical when evaluating external demands; those with low self-efficacy tend to have negative interpretations of demands placed on them whereas those with a strong sense of self-efficacy tend to view those demands as challenges to be overcome (Lazarus & Folkman, 1994). It has also been found to work in the opposite direction, with stress and anxiety depressing the self-efficacy judgements of students (Hacket, Betz, Casas, & Rocha-Singh, 1992). However, a student's self-perception of having a strong sense of self-efficacy in dealing with college was found to predict academic success significantly better than the absence or presence of stressors (Zajacova et al., 2005). Therefore, in looking at the ability of a student to adjust to college, it would be critical to measure the student's self-efficacy beliefs.

To measure academic adjustment this study used the College Adjustment Self-Efficacy Scale (CASES) (Hirose, Wada, & Watanbe, 1999). The CASES is a 21 item survey which evaluates the degree of confidence a student has in the skills necessary for college adjustment. This scale consists of three 7-item subscales: the ability to make

judgements based on objective information, the ability to persevere to finish activities, and the ability to make adjustments in human relationships (Hirose et al., 1999).

       Other factors that may affect the model. Although the proposed model looks at several factors that may affect a veteran's relationships and adjustment to college, there is a plethora of other factors that may influence the model. For example, military service has been found to change racial prejudices and acculturation. Studies have found that military service has been positively associated with Latino acculturation into American society (Leal, 2003), and Black veterans have been found to be less approving of racial separation or discrimination (Ellison, 1992). Military service also has been found to have an effect on Caucasian soldier's relationships with other races, with white veterans indicating they had more Black friends than nonveterans (Lawrence & Kane, 1996). Race therefore may play a factor in the outcomes of the model, especially in the relationships with other students. Likewise, the number of combat tours each person underwent, the length of time since the last deployment, the job the veteran had while deployed, and even when the veteran was deployed all may affect the amount of psychological distress currently displayed and the negative effects on relationships. Witnessing or committing an atrocity can cause moral injury and produce PTSD like symptoms that affect relationships. Other factors that may affect outcomes of the model are marital status, current and previous mental health care, whether the veteran is attending a two year or four year college, and what year of school the veteran is currently registered in. All of these factors, and many others, may have some influence over the model, but they are not

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the focus of this study. Due to the number of factors already being examined in this study, the inclusion of other factors for analysis would tend to make the data collection and analysis more unyielding, and breaking the model down into different groups would require a larger participation pool to have enough participants in each category for proper power in the analysis. Therefore, questions assessing these issues will be included in the demographics section so that future studies can explore their effect on veteran's psychological issues, relationships and adjustment to college, as well as their effect on the proposed model.

Purpose of the Study

This study was conducted to examine the effects of combat on veterans' adjustment to college through the mechanisms of psychological distress, empathy, trust, alienation, and social support. The study quantified the prevalence of PTSD, anxiety, depression and stress in the student veteran population. In addition the study tested a model of veterans' college adjustment that demonstrates how combat exposure can lead to psychological distress and a lack of empathy and trust, and how those variables interact and affect social support and classroom interactions. The study also examined how gender affects the outcomes of the model. The model also demonstrated how all the aforementioned factors affect veterans' adjustment to the college environment.

Research Questions

1. Research Question 1-What are the levels of psychological trauma among veterans returning to college?

2. Research Question 2-Does the Combat Soldiers Transition to School (CoSTS) model fit the data for student veterans?

3. Research Question 3-How does the psychological and physical trauma of combat affect psychosocial functioning, the ability to empathize, the ability to trust, relationships at home and at school, and how do all these factors interact to affect adjustment to college?

4. Research Question 4- Does gender have an effect on the outcomes of the model?

Significance of the Study

This study adds to the current field of knowledge in several ways. First, this study expanded on the study conducted by Rudd et al. (2011) by verifying the types and severity of psychological issues from which veterans suffer while returning to college. The present lack of empirical data regarding psychological issues surrounding veteran students makes it impossible for universities and colleges to properly prepare and implement programs to address those issues. Discovering the rates and types of psychological issues student veterans face will allow college administrators and counseling clinics to recognize the severity of the problem and enable them to make adjustments to their programs so as to better serve their veteran students.

This study also tested a model of veteran's college adjustment that will aid college administrators and counselors when determining the allocation of their resources and efforts. Demonstrating how the various factors affecting student veterans interrelate and eventually affect adjustment to college will help faculty and counseling staff decide

not only which interventions should be emphasized, but also what type of interventions may be needed in the first place. For example, should resources focus on treating psychological injuries, or on providing safe environments for the veteran to help overcome trust issues? Should more focus be put on couples counseling to help increase empathy and social support, or on classroom strategies that increase the classroom connection? This study provides data to assist in the formulation of answers to these questions.

Definition of Terms

Nontraditional Students' Cognitions: Nontraditional student cognition is a block of the Donaldson and Graham (1999) model which includes the knowledge structures and learning processes nontraditional students bring to college, as well as those they develop in their in-class and life experiences (Donaldson & Graham, 1999). These cognitions include the ways nontraditional students think and talk about self and others and how their actions are influenced by prior experience. These cognitions dictate the nontraditional students' perception of self, others, and education in general (Donaldson & Graham, 1999).

Combat Exposure: Although combat experience has been assessed using a variety of different methods, most studies use some type of instrument (predominately self-report) to assess specific details about the participants' wartime experience (Rand, 2009). For the purposes of this study two aspects of combat exposure will be examined: direct combat exposure and exposure to the aftermath of combat.

Being involved in actions in which direct contact with the enemy occurred was

measured with the Combat Exposure Scale (CES) (Keane, Fairbank, Caddell,

Zimering, Taylor, & Mora, 1989). Exposure to the results of battle (i.e. dead

bodies, wounded civilians, etc.) was assessed using the Aftermath of Battle Scale

(ABS) (King et al., 2003).

Combat Veteran: A combat veteran is any soldier who experiences any level of hostility

for any duration resulting from offensive, defensive or friendly fire military action

involving a real or perceived enemy in any foreign theater (American War

Library, 2008). This study focused only on veterans of Operation Iraqi Freedom

(OID) or Operation Enduring Freedom (OEF).

Connecting Classroom: The connecting classroom focuses on ways nontraditional

students use the classroom and their faculty and peer-interactions to facilitate their

learning (Donaldson & Graham, 1999). Studies examining student veterans found

that the veterans often felt alienated by faculty and other students (DiRamio et

al.l, 2008; Kinzie, 2010; Rumann & Hamrick, 2010). The connecting classroom

component was measured by the Alienation Survey designed by Elliot et al.

(2012) to be used with veterans in the classroom, and a survey designed by the

author to measure the degree of connection students feel toward other students

and their instructors.

*Empathy: S*everal definitions of empathy have been offered through the years, reflecting

its multidimensional nature. A 2004 study found there are two main components

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of empathy: (1) cognitive empathy , defined as the intellectual/imaginative understanding of another's mental state , and (2) emotional empathy (also known as affective empathy), defined as one's emotional response to the emotional expressions of others (Lawrence, Shaw, Baker, Baron-Cohen, & David, 2004). For the purposes of this study both cognitive and emotional empathy were measured by the 25 question E-Scale (Leibetseder, Laireiter, & Koller, 2007).

Life World Environment: The life world environment encompasses the different roles nontraditional students usually have outside of school, including work, family, friends, and community roles and obligations (Donaldson & Graham, 1999). These outside-of-school networks can help support the nontraditional student, buffer or enhance psychosocial issues, and help the nontraditional student make meaning from their experiences (Donaldson & Graham, 1999). This study focused on the variable of perceived social support for this section of the model.

Nontraditional student: Although what constitutes a nontraditional student has been the source of debate in recent years, being age 25 or older is listed as a defining characteristic. Nontraditional students often have family and work responsibilities, live off campus, often work full-time, and attend school either full or part-time (Williamson, 2009).

Outcomes: The college outcomes component focuses on the outcomes students derive from the college experience. These outcomes can be traditional academic (cognitive, emotional, and intellectual growth), or can be related to the effect of

the college experience on how the individual can benefit his or her family or community (Donaldson & Graham, 1999). For the purpose of this study the outcome that was measured is adjustment to college as measured by GPA and the College Adjustment Self-efficacy Survey (CASES) (Hirose et al., 1999).

Post-Traumatic Stress Syndrome-(PTSD): PTSD is an anxiety disorder that occurs in the aftermath of a traumatic event. There are three major categories of PTSD symptoms: (a) hyper-arousal and irritability, (b) memories of the trauma come flooding back into their minds at unexpected moments (i.e., flashbacks), and (c) avoidance of thinking about the trauma or any situation that reminds them of the trauma (Schimelpfening, 2011). This study assessed PTSD symptoms using the PTSD Checklist, military version (PCL-M) created by the National Center for PTSD (Weathers, Litz, Herman, Huska, & Keane, 1993).

Prior Experience: Nontraditional students come to college with much more prior experience in the real world than do traditional aged students. This prior experience and life history influences the knowledge structures and cognitions of the nontraditional student, influencing how they view themselves and others, what they value as important, and how they will interact with others in the school environment (Donaldson & Graham, 1999).

Psychosocial and Value Orientations: Psychosocial and values orientations are the various social conditions, values, and psychological factors that influence a nontraditional students' ability to learn and adjust to college (Donaldson &

Graham, 1999). The psychological factors to be examined in this study are the prevalence and severity of PTSD, depression, anxiety, and stress.

*Social support: S*ocial support can refer to a number of different aspects of individuals' social relationships; the quantity or structure of individuals' support networks, the degree to which individuals perceive their relationships to provide adequate emotional and instrumental support, or as the actual amount of support they receive (Diwan, Jonnalagadda, & Balaswamy, 2004). This study utilized the Post-Deployment Support Scale (King et al., 2003) to examine the perceived extent to which family, friends, coworkers, employers, and community members provide emotional and instrumental support.

*Traditional aged college student: S*tudents who are age 18-24, graduate from high school and go straight into college, typically live at or near the college and attend full-time, and are usually unmarried (Williamson, 2009).

Trust: The willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the truster (Mayer, Davis, & Schoorman, 1995). This study measured trust of romantic partners and trust of people in general as measured by the Trust Inventory (Couch, Adams, & Jones, 1996).

Summary and Overview of Remaining Chapters

This dissertation is presented in five chapters. The first chapter provided an introduction to veterans' issues as they return to college and outlined a model to be tested

of veterans' adjustment. The second chapter contains a review of the literature as it relates to college transition issues for nontraditional students, the effects of combat on veterans psychological well-being and relationships, the role of trust and empathy in relationships, how gender affects female soldiers' military experiences, the importance of social support with regards to both psychological health and interpersonal functioning, and the possible effects of all of these factors on a veteran's adjustment to college. The third chapter includes the methodology used in the study, including participants, sampling method, instruments, proposed data analyses, and changes in the study due to the pilot study. The fourth chapter contains the data analysis and findings by research questions for this study. The fifth chapter includes the discussion of the findings, implications for counseling, limitations of the study, and avenues for future studies.

CHAPTER II

REVIEW OF RELATED LITERATURE

In Chapter I the rationale for a study of the relationships between combat experience, psychological distress, trust, empathy, social support, feelings of alienation, and college adjustment was presented. In this chapter, a review is conducted of the scholarly literature relevant to this study. The first part of the chapter examines military issues past and present that are relevant to veterans returning to college. The section begins with a brief history of the military's view of the psychological issues experienced by soldiers during war and their effect on soldiers, and what the government did to aid the soldiers' subsequent transition to civilian life. The following sub-section examines gender issues in the military; both how they affect women soldiers and their effects on women after they transition to the civilian sector. The next sub-section will review studies done to date that have examined the Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) soldier's transition to college. This will be followed by a short summary of the section.

The second part of the chapter section focuses on models of the nontraditional student's transition to college, with particular focus on the Donald and Graham (1999) nontraditional student transition model. This section will be followed by a short summary. In the final section, the factors composing the Combat Soldier's Transition to

School (CoSTS) model are examined. This section will be followed by a short summary of the section and a complete summary of the chapter.

War, Psychological Stress, and Transitions

This section consists of a brief review of the literature covering the history of how psychological distress was viewed and treated during different conflicts over time, and how soldiers were transitioned back into civilian life and college.

War and psychological distress. Psychiatric casualties during war undoubtedly go back as far as warfare itself. Combat stress, also known as soldier's heart, shell shock, or battle fatigue, is a known and documented consequence of warfare (Rosenbeck & Fontana, 1999). Literature dating back to the ancient Greeks documents the case of a soldier going blind after seeing his comrade killed next to him (Baran, 2010). During the American Civil War thousands were struck by what was then called "nostalgia", a conditioned characterized by sudden mood changes, heart palpations, paralysis, tremors, and a longing desire to return home (Baran, 2010). During World War I (WWI) soldiers were manifesting symptoms that included stuttering, crying, paralysis, stupor, anxiety, insomnia, hallucinations, nightmares, heart problems, blindness and more. At first doctors believed these symptoms to be a physical reaction to shelling, thus terming the condition "shellshock" (Baran, 2010; Pois & Oak, 2007). This was later reclassified as a psychiatric disorder when soldiers who never experienced shelling started manifesting similar symptoms (Baran, 2010).

In World War II (WWII) the psychological manifestations of combat trauma were termed "battle fatigue" or "gross stress reaction" (Baran, 2010). After WWII the term "gross stress reaction" was included in the first Diagnostic and Statistical Manual of Mental Disorders (DSM), where it remained until being removed in 1968 (Baran, 2010). It was not until after the Vietnam War ended, and a prolonged awareness campaign by Vietnam War veterans and other groups, that the condition known as Post-Traumatic Stress Disorder (PTSD) was included in the DSM, once again giving mental health professionals a diagnosis related to traumatic stress (Baran, 2010).

Since that time several studies have linked higher levels of combat exposure to an increase in psychological distress (e.g. Armistead-Jehle, et al.,, 2010; Orcutt et al, 2004; Sharkansky et al, 2000). Both Miller et al. (2008) and Hoge et al. (2004) found a linear relationship between the amount of combat exposure and the prevalence of PTSD symptoms. Other studies have found that the risk of psychological injuries and the need for mental health services among service members increases during times of conflict (Milliken, Auchterlonie, & Hoge, 2007; Rosenbeck & Fontana, 1999).

Transition to civilian life. The following sections outline the transition from war time service to civilian life for soldiers after the various wars fought by the United States.

WWI. The aftermath of WWI saw over 1,800,000 American soldiers repatriated within 18 months (United States Department of Veterans Affairs, 2012). The demobilization was characterized by a total lack of planning and crisis management (United States Department of Veterans Affairs, 2012). Soldiers were assigned to a

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demobilization camp where they were given a physical examination, a determination of disability was conducted, service records were reviewed, and a final disbursement of pay and allowances was given (United States Department of Veterans Affairs, 2012). Each soldier was then given a new uniform and officially mustered out of the service. This concluded the transition process.

The War Department made an effort to help soldiers find jobs by creating a campaign that issued citations to businesses that rehired all of their employees who had left to serve in the war (United States Department of Veterans Affairs, 2012). In addition, the resumes of soldiers with technical skills were circulated among 25,000 businesses around the country. This campaign resulted in over 900,000 returning veterans being placed in jobs between 1918 and early 1919 (United States Department of Veterans Affairs, 2012). Unfortunately Congress stopped funding the program in the middle of 1919, resulting in a dramatic reduction in job placements (United States Department of Veterans Affairs, 2012).

WWII. Long before the end of the war the military was planning how to demobilize the majority of the 16.1 million service members that had fought in the conflict (Tanielian et al., 2008; United States Department of Veterans Affairs, 2012). The Army alone would cut its forces from a high of 8,300,000 to 1,500,000 in 10 months (United States Department of Veterans Affairs, 2012). For the first time the military offered transition counseling to outgoing soldiers, informing soldiers of their veteran's

rights and privileges, providing vocational and educational guidance, and to offer life insurance options (United States Department of Veterans Affairs, 2012)

To aid veterans in their transition to civilian life, President Roosevelt and the Congress introduced the Servicemen's Readjustment Act of 1944, which is more commonly known as the G.I. Bill. Benefits of the bill included low-cost mortgages, high school or vocational education, tuition and living expenses to attend college, loans to start a business or farm, and one year of unemployment compensation (United States Department of Veterans Affairs, 2012). Prior legislation had provided separation pay, hospitalization, medical care, and vocational rehabilitation training. Together with the G.I. Bill this was the most comprehensive package ever given to veterans, enabling nearly 2.4 million families to buy homes between 1944 and 1952, and 7.8 million veterans to participate in some type of vocational or education program (United States Department of Veterans Affairs, 2012).

Korean War. The Korean War demobilization process was much easier than that of the two previous wars due to the smaller number of individuals who needed to be separated and the existence of a veterans benefits program (United States Department of Veterans Affairs, 2012). The Veterans Adjustment Act of 1952 was very similar to the original G.I. Bill, with some differences in education and unemployment benefits. In contrast to the 48 months of education allowed by the 1944 law, the Korean GI Bill permitted a maximum of 36 months (United States Department of Veterans Affairs, 2012). The Korean GI Bill also did not provide tuition payments to the colleges. Instead,

veterans were paid a monthly sum of 110 dollars from which they paid tuition, fees, and living expenses. The effect of the changes was that the benefit no longer completely covered the cost of the veteran's education (United States Department of Veterans Affairs, 2012). By the end of the program in 1965 1.2 million veterans had used benefits to obtain higher education, and over 1.5 million used benefits to obtain home loans (United States Department of Veterans Affairs, 2012).

   Vietnam War. The transition for veterans of the Vietnam War was much different than those of the veterans of previous wars. Although most veterans successfully made the transition back to civilian life, and 76 percent, approximately 6.8 million veterans, took advantage of higher education benefits (United States Department of Veterans Affairs, 2012), Vietnam era veterans faced a much different homecoming from that of their predecessors.

   The unpopular nature of the Vietnam War had weakened the country's faith in government, with the military especially being discredited (Sitikoff, 1999). Many in society shunned veterans, and films in the aftermath of the war portrayed Vietnam veterans as drug-crazed killers and menaces to society (Sitikoff, 1999). More veterans of this war died from suicide after returning home than died in the war itself, and as many as 750,000 became homeless (Sitikoff, 1999). The return of veterans from combat zones to civilian life within days also was new. The cultural shock of suddenly being back in civilian life caused adjustment difficulties for veterans, with many veterans reporting

feeling isolated and alienated from their peers and society in general (United States Department of Veterans Affairs, 2012).

A major difference between Vietnam-era veterans and those of earlier wars was the larger percentage of disabled soldiers. Advances in airlift and medical treatment meant that many wounded and injured personnel who would have died in earlier wars survived. By 1972 there were 308,000 veterans with disabilities associated with military service (United States Department of Veterans Affairs, 2012).

Persian Gulf, Iraq, and Afghanistan wars. Initially the transition program for soldiers of the present conflicts was the same as that of the Vietnam era. Unemployment for these returning veterans has been high, with estimates ranging from 12 to 16 percent (O'Gorman, 2012; Zaroya, 2013). In response the Obama administration has outlined a program to assist in the transition to civilian life for veterans and to help reduce unemployment rates. This program, called Transition Goals Planning Success (Transition GPS) is the first significant change in over 20 years to the three day voluntary transition course that has been in place since the 1980's (Shane, 2012). The new course is mandatory for all members separating from the service and is five to seven days in length. Three days consist of Department of Labor Deployment workshops which include resume writing, mock job interviews, family adjustment issues, and translating military skills into civilian equivalents (Shane, 2012). This portion also includes instruction on online job searches and social media tools. Two days of the training address personal finances, VA Benefits, and mentorship opportunities. There are two

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additional optional days focusing on 3 different tracks: college bound, working, or entrepreneurship, that provide additional information for those specific environments (Shane, 2012).

In addition to changes in the transition process, the government has made considerable changes to the Post-9/11 G.I. Bill. The Veterans Educational Assistance Act of 2008 was the most significant increase in veteran's educational funding in decades (United States Department of Veterans Affairs, 2012). With the new changes to the G.I. Bill, honorably discharged military service members are entitled to tuition and fees equivalent to the most expensive rate of in-state tuition at a public college or university in their state, a yearly book stipend, and a monthly housing allowance (United States Department of Veterans Affairs, 2012). An additional change, dubbed the GI Bill Tuition Fairness Act of 2013, was proposed by Congress to help lower the cost of out of state tuition. The new bill requires state operated schools that accept GI Bill payments to charge veterans in-state tuition regardless of the veteran's residency status (Veterans Report, 2013). This could help veterans save thousands in tuition costs.

Summary. This section examined the history of psychological issues experienced by veterans and the ways the military has transitioned veterans in different wars. The next section will cover a short history of women in the military and how gender affects military service today.

Gender Issues in the Military

Throughout the ages women have been active participants in wars, not just as support and nursing personnel, but as active combatants. The recorded history of women serving active combat roles goes back more than 14 centuries, and was an acceptable part of Islamic politics from before the time of the Prophet Mohammad (Afshar, 2003). Since then women have continued to participate as combatants in wars and struggles across the centuries, including Latin America (Vazquez, 1997), Africa (West, 2000), Indonesia (Sunindyo, 1998), The United States (Stiehn, 1985), and Nicaragua and Vietnam (Afshar, 2003). Women now make up 17 percent of active duty troops and 20 percent of National Guard and reserve troops in the United States military (Hopkins-Chadwick, 2006). One author, citing a 2007 Veterans Affairs (VA) report, stated that over 182,000 women have served in Iraq and Afghanistan since the conflict began (Baechtold & Sawal, 2009).

The role of the military in many countries is changing, with troops being deployed for peacekeeping and disaster relief more than aggressive combat (DeGroot, 2007). Attributes commonly labeled as feminine, such as ability to empathize and communicate, are more important in these situations than the aggressive reaction typical of a combat soldier. The different identities and experiences that women bring to peacekeeping missions allows for solutions that are more inclusive, constructive, and sustainable (Hudsen, 2005). In addition, female peacekeepers provide good role models for young women and are often the only peacekeepers women will trust when they have been

victims of sexual violence. The use of female investigators and interpreters is found to have a considerable impact on whether women are willing to speak out (Gardam & Charlesworth, 2000). Cultural factors also must be considered; some cultures have social conventions that women do not talk to or be touched by male strangers. With 80 percent of refugees being women or children, communication with them, and the ability to search them, becomes an essential attribute of peacekeeping (DeGroot, 2007).

Thus the presence of women in the military becomes increasingly important as peacekeeping becomes the focus. As a 2000 memo for the Department of Peace Keeping Operations (DKPO) states, "Women's presence [in peacekeeping missions] improves access and support for local women; it makes male peacekeepers more reflective and responsible; and it broadens the repertoire of skills and styles available within the mission, often with the effect of reducing conflict and confrontation. Gender mainstreaming is not just fair, it is imperative" (Rehn & Sirleaf, 2002, p 61).

Women's roles in active combat operations are also increasing. Although women are not currently assigned to direct combat ground units, the nature of the wars in Iraq and Afghanistan were such that there was no front line, and thus no safe area for support troops to operate. Women soldiers were exposed to road side bombs, rocket attacks, and suicide bombers right alongside their male counterparts. They fly combat missions in jets and fly support helicopters. They have fought, been wounded, captured, and even killed. The United States military is in the process of opening previously closed military occupations in combat arms to women. But with the gains comes a loss of traditionally

held feminine roles, and for many female soldiers their traditional feminine image has been all but lost (Afshar, 2003, Sunindyo, 1998, Vazquez 1997).

Feminist researchers have examined the minority experience of women in a military culture described as conservative, moralistic, hostile, aggressive, masculine warrior based, separate, self-sacrificing and homogenate (Hopkins-Chadwick, 2006). DeGroot (2007, p. 30) states that "women who have trespassed into the military domain have often been redefined and placed in an uncomfortable limbo where they have lost the most admired aspects of femininity but are denied the status accorded male heroes". West (2000), in an interview with a village elder in Mozambique, was told that women running around with guns slung over their shoulders presented an unacceptable challenge to traditional societal norms and relations. This type of traditional gender norm is not isolated to less industrialized nations. Decew (1995) quotes General Westmoreland, the United States Army's top general during the Vietnam War, saying to a 1979 Congressional hearing on women in the military that "No man with gumption wants a woman to fight his nation's battles. I do not belief that the American public wants to see a woman….do a man's job and that is to fight" (p. 63).

Despite Westmoreland's beliefs, the use of females in the military is increasing. There are a number of variables that contribute to this increase. Segal (1995) presented Helen Hughe's 1994 model of factors affecting women's participation in the military to explain some of these variables. This model has three main categories of factors: Military factors, social-economic factors, and cultural factors. Under military factors fall the

nation's security situation, military technology, combat to support troop ratio, force structure, and military accession policies. Segal states that Hughe found that when there is a shortage of qualified men women's roles in the military increase, especially in a crisis situation. This demand for military personnel seems to be the number one factor in women's military involvement (Segal, 1995). In addition, as the military technology increases the need for specialist in certain fields increases, and the need for brute strength decreases, thus allowing women to fill roles previously denied to them (Decew, 1995).

Cultural aspects also play a key part of women's participation in the military, and are the cause of some of their difficulties while in the military and when they transition to the civilian sector. Some of the factors in this category are the social construction of gender and family, the social values about gender and family, the public discourse over gender, and the society's values regarding ascription and equality (Segal, 1995). The existence of the warrior woman appears in conflict with the cultural masculine image of the military as protector. Sjoberg (2007) states that the new militarized femininity relies on control of femininity in general and women specifically. On one hand the women combatants are portrayed as examples of the gender equality of the military or the regime, while on the other hand their femininity is in need of protection by the stronger males (Sunindyo, 1998). Sjoberg (2007) points to how the military's characterization of Jessica Lynch as a brave women who went down fighting but needed to be rescued to save her from the horrors of rape and torture is the military's new version of the modern women soldier; a women who is tough but not violent, brave but not self-sufficient. She

is masculine but not above being feminine. She can fight but cannot be tortured, nor is she the type of person whom would inflict torture. This version of femininity is more compatible with our cultures view on women. But it is not the reality women in the military are facing.

Assimilation of women into the military. Little has been written on the assimilation of women into the military culture, but one can use the experience of other minorities to understand the process involved. Sue and Sue (2002) list four ways minorities adjust to a dominant culture:

1. Assimilation- seeks to become a part of the dominate society.

2. Separation- Identifies exclusively to own culture.

3. Integration/biculturalism-takes aspects of both cultures.

4. Marginalization-perceives one's own culture as negative but is unable to adapt to majority culture.

The military attempts to indoctrinate recruits into the military culture in basic training. The more one fits into the culture the easier it is to navigate and move up in rank. Therefore the methods of separation or marginalization will not be effective in this culture. Most female soldiers attempt to assimilate, taking on some or all of the masculine characteristics associated with military might. Like female politicians who need to show that they are more manly and tough than their male contenders, some female soldiers may take on an extreme adaptation of the masculine conduct in order to prove they fit in or are better than their male counterparts (Minsberg, 2015). Sjobergg (2007) believes this may

be the reason the three female guards at Abu Ghraib were involved in sexually torturing and humiliating Iraqi male prisoners, and why the military hushed the proceedings up. Those three soldiers had adapted an extreme masculine view that is diametrically opposed to our cultures view of women as innocent and incapable of violence (Sjoberg, 2007).

Sue and Sue (2002) found that minorities who use either extreme of total assimilation or separation reported more acculturation stress and psychological difficulties than those who integrate cultures. Women soldiers who fail to assimilate any of the military's masculine characteristics may be more compatible with the country's patriarchal traditional view of women, but will be unable to fit into the military unit, thus losing support from military peers. On the other extreme, assimilating too much of the military culture alienates the women from friends and family back home. This loss of support may be offset by increased military peer support, which may be more relevant to a soldier who is deployed for a long period of time. However, this is not always the case. The sexual harassment experienced by the majority of female soldiers can negate any support the female soldier might have felt from her peers (Hay & Elig, 1999)

Problems facing women in the military today. Researchers studying why women in general report higher percentages of depression and PTSD point to several areas in which women are especially vulnerable. The Department of Veterans Affairs National Center for PTSD website (2014) cites findings that indicate somewhere between 17 and 34 percent of women will experience a rape, and that women are more vulnerable

to sexual molestation, physical abuse, childhood parental neglect, and domestic violence. Women soldiers are not immune to these abuses. One study citing findings from a 1996 Department of Defense survey on sexual harassment found that 78 percent of female soldiers on active duty complained of being sexually harassed, and that six percent reported actually being raped (Hay & Elig, 1999). A recent study found that women soldiers were 10 times more likely to report sexual harassment issues while deployed (Street et al., 2015). From this one may surmise that despite efforts by the Department of Defense to curb sexual harassment it still flourishes in the military culture.

Sexual harassment has been shown to have negative outcomes relating to work performance, psychological health, and physical health (Pryor, 1995). Even low levels of sexual harassment have been found to have a significant impact on the physiological well- being of the victims (Schneider, Swan, & Fitzgerald, 1997). Thirty one percent of female soldiers in one study reported feeling increased amount of stress just because they were women in a male dominated culture (Hopkins-Chadwick, 2006).Women have been found to be more vulnerable to these interpersonal stressors, resulting in higher levels of depression, anxiety, and PTSD (Vogt, Pless, L. A. King, & D. W. King, 2005). Street and his associates (2015) found that deployed women's suicide risks tripled during deployment, where it only doubled for male soldiers. These feelings of harassment and stress can leave the female soldier isolated and without support.

Social support has been found to be a critical element in warding off stress, depression, and PTSD symptoms (Diwan;, Jonnalagadda, & Balaswamy, 2004;

Needham, 2008; Rosario, Salzinger, Feldman, & Ng-Mak, 2008; Ting, Jacobson, & Sanders, 2008). Females especially have been found to use social support more to help cope with stressful situations (Dalgard et al., 2006; Wareham, Fowler, & Pike, 2007). However, the assimilation of masculine military cultural norms may act to reduce the females social support from friends and family back home who do not understand the military culture, while at the same time the prevalence of sexual harassment and sexual assault by the female soldier's military peers may leave her isolated while deployed. Both of these deteriorate the amount of social support the soldier can receive and may in part account for the disparity in PTSD and depression reporting between male and female soldiers.

The returning female veteran. Traditionally women combatants returning to civilian life are not welcomed with open arms. Palestinian female resistant fighters who had been interrogated and/or raped were seen as being tarnished or defective, either physically or emotionally (Afshar, 2003). Thus they became un-marriageable in a society where marriage is the norm. For others, the promise of equality the military espoused never comes. Sunindyo's (1998) research has found that there is tendency world- wide that as soon as the conflict is over the women are pushed back into their previous domestic sphere. West (2000) found that many women were less traumatized by their wartime experiences than they were by the post-war unraveling of the narrative of fighting for equality that they had used to make sense of their experience.

Even in societies where gender equality is more highly valued, female warriors still struggle with reentry. Women warriors often find themselves with an identity issue; the military feminine warrior identity that was valued by the military is not one that is understood by the civilian culture, nor is it appreciated (Baechtold & Sawal, 2009). Returning female veterans are faced not only with assimilating back into civilian culture, but of having to socially construct a new identity that is specifically related to gender. While male soldiers are often greeted as heroes, female soldiers are expected to return to a model of femininity that no longer fits who they are. These factors make adjustment even harder for female veterans than it is for their male counterparts.

Summary. This section gave a short history of women in combat, discussed issues faced by women and the psychological issues particular to women, and discussed the female soldier's transition to civilian life. The next section discusses the articles that examined veterans in college and the issues they face.

Current Studies of Iraq and Afghanistan Combat Veterans Transition to College

Researchers in the last decade have conducted few empirical studies on the experience of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) veterans returning to college. Early articles featured interviews with veterans in which the veterans related concerns about how difficult it was to relate to fellow students, how veterans must adjust to a new value system, and how the attitudes of faculty and fellow students presented the biggest challenge to integrating into campus life (Balkoski, 2009; Brown, 2009; Burnett & Segoria, 2009). One article noted that student veterans attending

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four year colleges and universities in the United States perceived lower levels of campus support than nonveteran students (Kinzie, 2010). Other articles discussed the difficulties disabled veterans were having in transitioning to campus life (DiRamio & Spires, 2009) and the importance of self-pacing in allowing veteran students to adjust gradually to a new environment (Church, 2009). These articles, while informative, were not empirical in that they did not follow a theory or adhere to a recognized research method, so their results are hard to interpret and/or extrapolate from in reference to the student veteran population at large.

The first empirical study conducted regarding Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) veterans was a qualitative study performed by DiRamio, Ackerman, and Mitchell in 2008. The researchers interviewed 25 students who were veterans of the Iraq or Afghanistan wars. The authors used the nontraditional student transition theory presented by Schlossberg, Waters, and Goodman (1995). which divided the transition experience into categories or phases of transitions; moving in, moving through, and moving out, to highlight the different stages of transition encountered by the participants as they moved from civilian to military life and then back to civilian life (DiRamio et al., 2008).

The 25 participants in the study consisted of 6 women and 19 men from different branches of the service; 11 were reservists or National Guard, four regular Army, five Marines, and three Air Force personnel. All the participants had served in Iraq and Afghanistan between 2003 and 2007 and were drawn from three universities in the

northern, southern, and western regions of the United States. Nine of the participants had previous college experience (DiRamio et al., 2008).

DiRamio and his colleagues (2008) separated the time periods between time in the military and time at college. The time in the military was separated into three phases: moving in, moving through, and moving out. The college time period had just the moving in stage. Of particular interest for this study are the moving through and the moving out of the military, and the moving in to college stages. The moving through stage deals with the memories and significant events that transpired while in a combat zone. Veteran's discussed not only the horrors they encountered, but their experiences and relationships with the local people that helped them to better understand cultural differences and to develop empathy for the viewpoints of others. This manifested itself in the veteran having a sense of a broader world view and more maturity accompanied by a greater sense of perspective than the average traditional student (DiRamio et al., 2008).

During the moving out phase participants discussed issues associated with leaving the military and preparing to re-enter civilian life. At this point transition programs for the military had yet to be standardized across the services, so participants had very different experiences, ranging from quite positive to considering the efforts to be almost worthless (DiRamio et al., 2008). The process of returning home proved to be a more universal issue, with all participants stating that it was a challenge in some way. Strained and terminated relationships were common, with some soldiers stating they thought about going back to Iraq where they felt they belonged. Others complained of insufficient funds

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for school, or feeling a lack of academic preparation. A lack of focus, poor study habits, and symptoms of post-traumatic stress were cited numerous times as stressors for these students (DiRamio et al., 2008).

Moving into college was the next phase of the transition process. One of the major themes of this stage was connecting with peers. Veteran's noted a vast difference in maturity levels between themselves and traditional students, even though their ages were usually only a couple of years apart. This difference in maturity levels may account for some of the difficulties veterans reported in relating to other students ((Balkoski, 2009; Brown, 2009; Burnett & Segoria, 2009). In addition, veterans did not want to discuss their wartime experience with everyone. The veteran's talked about wanting to blend in with the traditional students, while at the same time expressing an interest in connecting with other student veterans (DiRamio et al., 2008). Issues with faculty included being called upon too frequently in class to share their experiences with everyone, to having professors call soldiers "terrorists". These types of situations tended to alienate the veteran from their fellow students and faculty (DiRamio et al., 2008)

Disabilities and mental health issues such as PTSD also emerged as important topics (DiRamio et al., 2008). Veteran's expressed as major concerns difficulty in getting their money from the VA, difficulties in dealing with the veteran affairs office on campus, and a lack of services targeted to veterans. Many of the participants would have preferred an emphasis on the transition itself and less on the financial aspects. Anger issues were another common concern among most veterans (DiRamio et al., 2008).

A second qualitative study was done by Ruman and Hamrick (2010), in which they assessed the transition experiences of 6 student veterans who had been serving in the National Guard or Army Reserve while attending college and then were activated to go to Iraq or Afghanistan. The students had been forced to drop out of college while they deployed, and then re-enter college upon their return. Each participant was interviewed at least twice and had at least two follow-up contacts over a 9 month period (Ruman & Hamrick, 2010).

Like the previous study, the authors used the theoretical framework of nontraditional student transition theory (Schlossberg, Waters, & Goodman, 1995). to help conceptualize their study. The authors stated that "we gravitated towards theoretical aspects of the transition model that emphasized individual changes as well as emerging and contested senses of self "(Ruman & Hamrick, 2010; pg 434). The authors also incorporated Goodman's four S System of factors (situation, self, support, and strategies) into their framework, as well as looking at the transitions from individual, work, and relationship perspectives (Ruman & Hamrick, 2010).

In addition to the transition theory, Ruman and Hamrick (2010) incorporated parts of a model of multiple dimensions of identity (Abes, Jones, & McEwen, 2007) to help distinguish the way in which the veterans re-examined their identities (i.e. student and veteran) as they went through the transition from the military back to school. Ruman and Hamrick (2010) stated that "social identities wax or wane in prominence depending in part on environmental and contextual influences, and the complexities of individuals'

meaning making 'filters' mediate the relative saliences and impact of a variety of external influences such as peers, norms, stereotypes and social political conditions" (pg 435).

After the data was coded and themes were developed by the two authors independently, they came together to find common themes. The six participants, 5 men and one woman, were sent transcripts of their interviews to verify the content, and also were asked to comment on the themes the authors had found. Five of the respondents did comment, and all five endorsed the findings of the study (Ruman & Hamrick, 2010). The four themes that emerged from the study were role incongruities, maturity, relationships, and identity redefinition.

Ruman and Hamrick (2010) found three principle role incongruities being described by the participants: military and academic life, enacting parts of the student role while deployed and parts of the military role while in school, and the incompatibility of having the lingering stress and anxiety from deployment in the college environment. The incongruity of military life, especially while deployed, with the college life stems from the rather routine nature of life while deployed. All the respondents discuss how every day was the same while deployed and, when not out on a mission, the days were pretty boring (Ruman & Hamrick, 2010). They also discussed how during deployment your routine is set for you; you know when to get up, eat, exercise, and sleep, and you know where you need to be at all times. In the college environment, things are constantly changing; new assignments, different rooms, and different people. This change was difficult for some of the respondents (Ruman & Hamrick, 2010).

Most of the respondents reported issues with lingering stress reactions from their deployments once back in school. Some were not comfortable in crowed or noisy arenas, and reported feeling uneasy when people walk too closely behind them (Ruman & Hamrick, 2010). Many reported sitting in the back of class where they can have a wall to their backs. Most of the respondents admitted having short-tempers and anger issues upon return. One respondent stated that for the first year back he was constantly looking for a place to jump into in case of an attack (Ruman & Hamrick, 2010).

Some of the respondents reported being able to continue their schooling while deployed, creating less of an interruption in their academic lives. This situation caused the student and military roles to combine. Other respondents indicated that they were still in the Guard or Reserves upon their return to school, so had military duties they needed to perform on weekends and during the summer while continuing their studies. This required a constant switching of identities from student to soldier and back to student (Ruman & Hamrick, 2010).

Maturity is the second major theme the researchers found. The respondents described themselves as feeling more mature, more committed to goals, and of having a clearer vision of what they wanted to do with their lives (Ruman & Hamrick, 2010). All of the respondents stated that their experiences during deployment had motivated them to finish their degrees. A majority of the respondents reported taking their college work much more seriously now after being deployed, and having a clearer perspective on what is important and what is not (Ruman & Hamrick, 2010). Most of the respondents believed

that developing structure and self-discipline in their lives is important, as is getting involved in organizations that are aligned with their goals (Ruman & Hamrick, 2010).

The third major theme found in the study was issues involving relationships. Many of the respondents felt challenged about when and with whom to disclose their military services (Ruman & Hamrick, 2010). Many of the friends the veterans had before they deployed were now one or two years ahead of them academically, and some had already graduated. The majority of the six veterans described challenges with resuming old relationships and in starting new ones (Ruman & Hamrick, 2010). Some of the reported difficulties stemmed from a difference in maturity levels, while other difficulties were caused by the differences between military and civilian cultures that left the veterans feeling they did not fit in (Ruman & Hamrick, 2010). In addition, some respondents took offence to the crude and often insensitive questions posed by civilians, while others reported difficulties with people who have no military experience posing as experts on the war (Ruman & Hamrick, 2010).

Identity renegotiation is the fourth major theme found in the Ruman and Hamrick (2010) study. Respondents reported struggling to find ways to incorporate both the positive and negative aspects of their deployments into their sense of self. Most acknowledged that they could not return to who they were before the deployment, and were thus searching for what a new normal entailed for them (Ruman & Hamrick, 2010). Most of the respondents stated that their deployment has made them more accepting of people, and more open to different types of people. They also reported that their

deployments had broadened their cultural awareness and made them realize that coming from different backgrounds can make you see the world in different ways (Ruman & Hamrick, 2010).

Qualitative research is designed to describe the routine and meaning in individual lives, to gain an understanding of the participants lived experiences (Heppner, Wampold, & Kivlighan, 2008).The preceding two articles start to paint a picture of issues veterans face when returning to college. One of the common themes found in the articles is difficulties in relationships that the returning veterans face. Both groups expressed problems connecting with fellow students, the difficulties they face in re-establishing old friendships, and the role the difference in cultures, civilian and military, play in those difficulties. The difference in maturity levels between veterans and traditional students is another issue that factors into this. All of these issues affect the social support that student veterans will receive when returning to school. Since social support is a major mediating factor in the reduction of psychological distress, examining how the veterans combat exposure affects this support will be an important component of this study.

Both articles discuss the anger issues with which returning vets deal, and how lingering stress and PTSD issues affects their ability to assimilate. Although neither article explores the types or levels of psychological distress the veterans feel, both articles have respondents who disclose how their anxiety and stress carry over from their deployment and is affecting their college experience. This study will examine the levels

of PTSD, depression, anxiety, and stress veterans are experiencing, as well as how these factors are affecting their relationships.

Qualitative methodology helps the researcher explore the context of a phenomenon of interest, but because it is specific to that context one is unable to apply the findings to other individuals or contexts (Heppner et al., 2008). The two studies presented here highlight some of the challenges our student veterans are facing as they transition to a civilian academic life, and many of these correspond with issues acknowledged by previous, non-empirical articles. Unfortunately these articles cannot determine how prevalent these findings are in the larger population of student veterans. For that type of inferential data the researcher must move into the realm of quantitative analysis. The next two quantitative articles explore several factors affecting student veterans, and they will give us a clearer picture of what is happening in this population.

The first quantitative article to examine the prevalence of psychological distress in the Iraq and Afghanistan veterans who are now students was conducted Rudd, Goulding, and Bryan (2011). Utilizing several instruments to measure anxiety, insomnia, suicidal behavior, depression, PTSD, and combat exposure the authors surveyed 525 student veterans who responded to a request to take the survey. The findings were stunning. Almost 55 percent of the students surveyed reported experiencing severe anxiety, 46 percent reported significant symptoms of PTSD, and 24 percent reported experiencing signs of severe depression (Rudd et al., 2011). In addition 46 percent of the student veterans reported suicidal ideation, with 20 percent of those actually having a

plan, and 7.7 percent had made an actual attempt. Rudd and his fellow authors compared this rate to the rate found in a 2010 study of veterans in general (Pietrazak et al., 2010) which found that only 12.5 percent of the veterans participating in the study had thought about suicide in the last two weeks (Rudd et al., 2011). The fact that the rate was lower for veterans overall than it was for the veterans who were back in school was a disturbing discovery. The authors suggested that it may have been the self-selective nature of the survey that led to a higher symptomatic rate among the student veterans than was expected (Rudd et al., 2011), but did not have a solid explanation for the phenomenon.

This study is instrumental in exposing the level of psychological distress in the current student veteran population. It does not, however, indicate how the psychological issues found are affecting the student veteran's transition back to school. The authors of the study mention other limitations, including having to use short survey instruments, thus possibly losing some of the depth of the constructs, and that the cross sectional nature of the study did not allow insight into how the psychological distress may change over time (Rudd et al., 2011).

The second quantitative study, conducted by Elliot, Gonzalez, and Larsen (2011), starts to address the lack of information regarding the student veteran's transition to college by proposing a conceptual model that looks at combat exposure, functional limitations due to service related injuries, social support from family and friends, and age as factors that affect the development of PTSD, problems with alcohol, intimate relationship strain, and alienation on campus. (See Figure 4) The survey was completed

by 104 student veterans attending a medium-sized public university. The survey also included two open ended questions that allowed the student veterans to voice their concerns or experiences (Elliot et al., 2011).

The results were run through a structural equation model program, with the results indicating that their model was an appropriate fit for the data (See Figure 4 below). The degree of combat exposure and the functional limits were both found to be significant predictors of PTSD symptoms, while social support from family and friends was found to significantly reduce PTSD symptoms. Increased PTSD symptoms were found to be significantly associated with alienation on campus, intimate relationship strain post-military, and problems with alcohol. Social support from friends and family was found to buffer the results of PTSD on intimate relationships, and age was found to be negatively associated with problems with alcohol. A significant path correlation was also found between combat exposure and alienation on campus, indicating that there are factors, other than PTSD, that may come into play that increase the feeling of alienation felt by many student veterans (Elliot et al., 2011).

Comments reported on the two open ended questions focused on financial issues, veteran services, social interaction among veterans, and student veterans' complaints about disturbing classroom experiences involving professors. Some of the stated issues included having to watch disturbing war footage in class, feeling uncomfortable in a crowded classroom, and professors who made antiwar comments in front of the class

(Elliot et al., 2011). These are in line with the comments made by the student veterans in

earlier studies and articles.
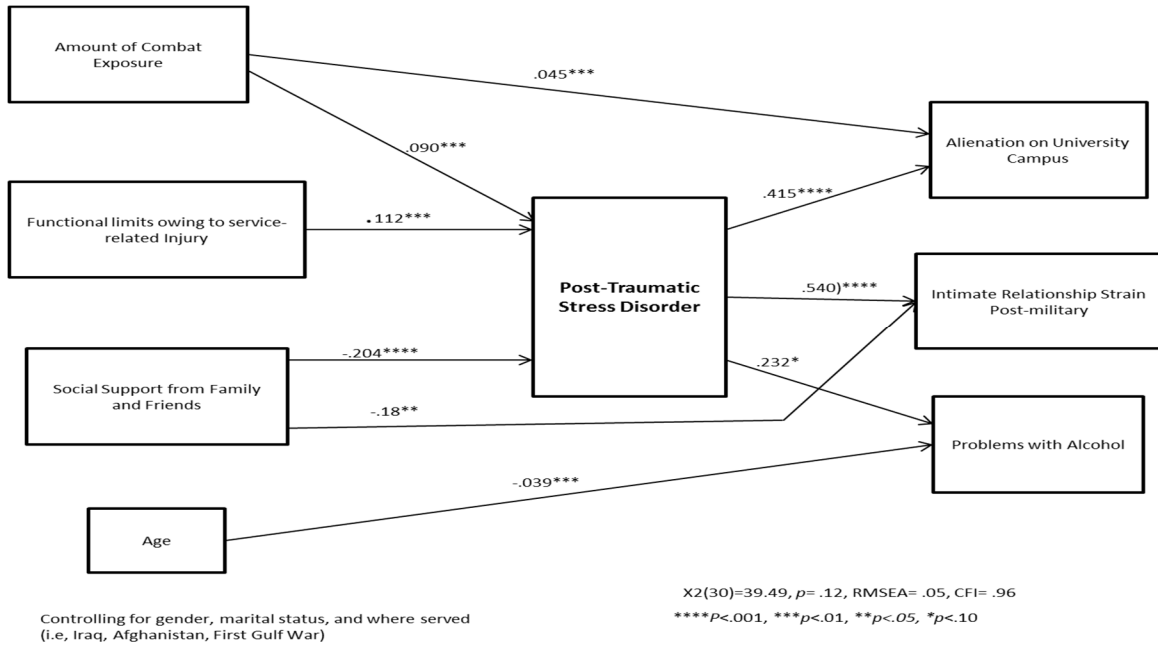
Figure 3. Military Service, PTSD, and Problems Facing University Students.
Adapted from "U.S. Military Veterans Transition to College, Combat, PTSD, and
Alienation on Campus" by M. Elliott, C. Gonzalez, and B. Larsen, 2011, *Journal Of
Student Affairs Research and Practice, 48,* p. 286. Copyright 2011 by Taylor and Francis
Group. Adapted with permission.

This study was the first to try to show a path model of how different factors may

affect the feelings of alienation on campus experienced by student veterans. The model

was able to highlight the marked effect PTSD has on both relationships with intimate

partners and feelings of alienation from others. The model does not explain how this

mechanism works; whether it is the anger often displayed by PTSD sufferers that causes

others to withdraw from them, or the avoidance and numbing associated with the disorder

that withdraws them from others, or some other factor altogether. And while the model does look at the effects of PTSD on intimate relationships, it does not look at its effects on relationships with family and friends, thus possibly overlooking the impact of PTSD on the larger social support network. The model also does not explain how the chosen factors affect the student veterans transition to college, something the model proposed for this study will address.

Summary. This section examined several articles and the four known studies that focused on the OIE/OEF student veteran's transition to college. The three studies that elicited qualitative responses found common themes in relationship issues with peers and professors, difficulties in establishing old social support networks, and how PTSD and other psychological issues are making it difficult to assimilate to the college environment. These findings echo statements from the earlier articles interviewing student veterans. The two quantitative articles highlight the prevalence of psychological distress in the student veteran population, as well as the affect PTSD is having on relationships, both in the classroom and at home.

Nontraditional Student Transition Models

The next section will outline some of the differences between traditional and non-traditional students, introduce the concept of the nontraditional student's transition to school models, and outline the Donald and Grahams (1999) Nontraditional Student Transition model in more detail.

Differences between traditional and nontraditional students. Though there is an obvious difference between traditional students, those who enter college straight from high school, live on campus, and attend college full-time, and nontraditional students, those who are over the age of 25, do not live on campus, and often attend school part-time (Bean & Metzner, 1985). Investigators have held different and changing views of the nontraditional student over the years that are evident in their research focus. Kasworm (1990b) conducted a meta-analysis of previous research on nontraditional student undergraduates, finding 5 domains that previous researchers operated from over time. The first domain was of implied deficiencies, where the researchers conducted age based comparisons between the traditional and nontraditional students, looking to find in what ways nontraditional students were inferior to traditional students. Studies in this group found that although the nontraditional students performed more poorly on entry level screening tests for math and quantitative measures, they performed better on verbal entry tests and English tests (Kasworm, 1990b). The majority of these studies also found that the nontraditional student's intellectual performance was comparable to the traditional student.

The second domain of studies derived by Kasworm (1990b) was the image of student entry and evaluation. Theses researchers found that nontraditional students have many different motivations for going back to school, ranging from lower tuition prices, using the GI Bill, better job opportunities, potential for promotions, and changes in relationship status and major life events (Kasworm, 1990b). This theme was

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demonstrated in a later study by Graham and Donaldson (1999) examining nontraditional students' academic and intellectual development. The study found five reasons nontraditional students go to college: broadening one's intellectual interests, developing critical thinking skills, enhancing study skills, understanding and applying science and technology., and career development.

The third domain of research focused on the characteristics of the nontraditional students themselves, finding that age alone provides a limited utility to uncovering key differences (Kasworm, 1990b). These studies examined the needs, concerns, and difficulties for nontraditional students, such as juggling their roles of work, family and school, difficulties in attending day classes, and the lack of programs and services directed toward nontraditional student learners (Kasworm, 1990b).

Research then evolved to include the examination of the psychosocial development of nontraditional students. These studies looked at the nontraditional student's role expectations and the support received from family, work, and school, role conflicts, and program interventions targeted at helping nontraditional students succeed. Later research in this domain conducted by Mercer (Mercer & Saunders, 2004; Mercer, 2010) found that nontraditional students were more likely to be intrinsically motivated to succeed, and that nontraditional student students increased in confidence and awareness of themselves, not only academically but socially as well. Mercer (2010) also found that individual change and development are an important part of the college experience for

the nontraditional student and that there is a lot of self-discovery and an altered sense of self (Mercer & Saunders, 2004).

Other studies examining traditional and nontraditional students found that nontraditional students have different priorities and focus in school than the traditional student. Dill & Henley (1998), in a study looking at school stressors, found that while both groups rate academic events as very important, nontraditional students give higher marks to attending class and doing homework, while traditional students rate social and peer events as having greater significance. Researchers also found that nontraditional students show less involvement in clubs and organizations, and spend more time in caring for family (Bean & Metzner, 1985; Graham & Donaldson, 1999). In addition, Kasworm (2005; 2010) found that nontraditional students believe their age and maturity contribute to a stronger commitment to invest more effort and resources into learning, along with the belief that the ideal college student makes a serious commitment to their studies.

In several studies Kasworm (2005, 2008, 2010) found that the nontraditional student utilized the classroom differently than the traditional student. Kasworm stated that the nontraditional student needs to feel connected in the classroom, that the classroom represents the social and psychological space for learning that connects the nontraditional student's other roles to the academic role. Much of the nontraditional students identity as a student is defined through taking an active role in the classroom, and with establishing a more personal and supportive engagement with faculty (Kasworm, 2010). Kasworm (2008) also found that the most profound influences on

nontraditional student learners are their learning successes in the classroom and their

connections with faculty, both of which validate their nontraditional student identity as

being important and valued. This concept of the connecting classroom is perpetuated by

Graham and Donaldson and used in their model of nontraditional student transition to

school.

  Nontraditional student transition models. Bean and Metzner (1985) were the

first to explore a conceptual model of the nontraditional student which examined the

possible influences that students have for dropping out of school. The model (see figure

4) utilized a variety of factors in explaining nontraditional student's attrition from

colleges and universities, including some background and environmental factors that had

not been seen in early models of traditional student attrition. The authors of the mode felt

that nontraditional students were distinguishable from traditional students by the intensity

and duration of their interactions with other students and faculty (Bean & Metzner,

1985). Previous traditional student models emphasized the socialization process between

peers and faculty that is believed to mold the traditional student. Bean and Metzner

(1985) believed that the nontraditional student would not have much interaction with

other students or faculty, and thus would not be subjected to the same socialization

process. For this reason the effect of the social integration process is downplayed in this

model.

  One of the results of the Bean and Metzner (1985) work of relevance for this

study is the finding that the environmental support factors, especially support from family

and friends, could compensate for weak academic support, but that academic support

could not compensate for weak environmental factors, thus emphasizing the importance

of support from family and friends in succeeding in college.
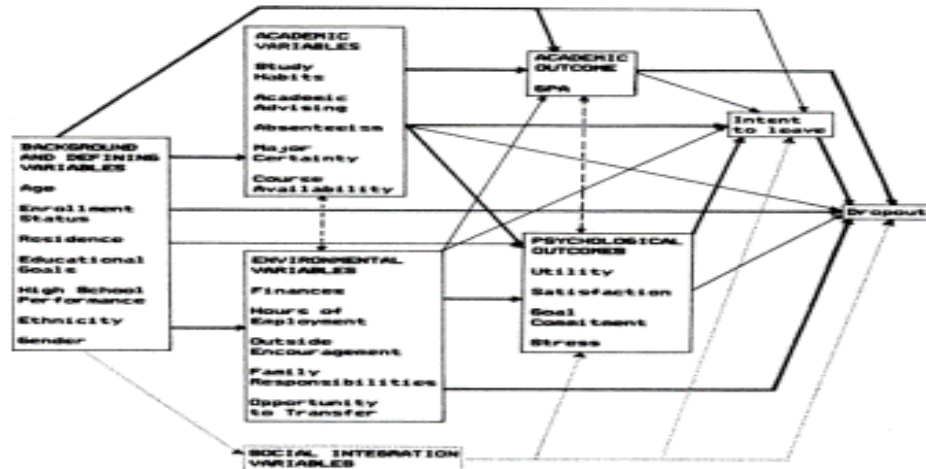
FIGURE 1. A Conceptual Model of Nontraditional Student Attrition.
Key: → Direct effects
— Direct effects presumed most important
-•-• Compensatory interaction effects
•-•-• Possible effects

Figure 4. The Nontraditional Student Attrition Model. Reproduced from "A Concept
Model of Nontraditional Undergraduates Student Attrition" by J.P. Bean, and B. S.
Metzer, 1985, *Review of Educational Research, 55,* p. 491. Copyright 1985 by Sage
Publishing. Reprinted with permission.

A different model of nontraditional student adjustment to college, introduced by

Chartrand (1990), focused exclusively on the student's commitment and motivation

factors, such as student role evaluation, role incongruities, GPA, and personal distress.

Chartrand developed a model that looks at personal variables which indicate the person-

environmental fit, and how these affected academic performance and personal distress

(Chartrand, 1990) (See Figure 5). The results indicated that a positive perception of

oneself as a student enhanced the commitment to the student role, and that these together

positively influenced the congruence between the student's self-evaluation as a student

and the perception of what represents a good student. An unexpected discovery was the

positive correlation between commitment as a student and personal distress, which the

author stated may be due to demands in other areas of the nontraditional student's life.
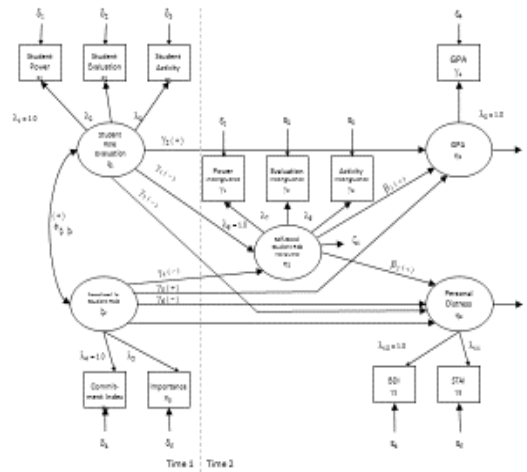
Figure 5. Nontraditional Student Personal and Academic Transition Model. Copied from
" A Casual Analysis to Predict the Personal and Academic Adjustment of Nontradition
Students", by J. M. Chartrand, 1990, *Journal of Counseling Psychology, 37*, p. 67.
Copyright 1990 by the American Psychological Association.

While a model such as this may be useful in looking at in-school factors, it does

not take into account any of the outside factors that may be affecting nontraditional

student students, such as the potentially heavy demands of family and work. Chartrand

(1992) partially addressed this concern by introducing another nontraditional student

adjustment model that utilized the Bean and Metzner (1985) models background

variables (age, educational goals, and high school GPA) , academic variables (certainty

of major, satisfaction with courses and advising, and perceived study skills),

environmental factors (support from family and friends, difficulty financing education,

work hours, and family responsibilities), and social integration factors to examine how

they affected a new set of psychological outcomes (institutional commitment, academic

adjustment, and absence of psychological distress), and the intent to continue in school

(Chartrand, 1992) (See figure 6).
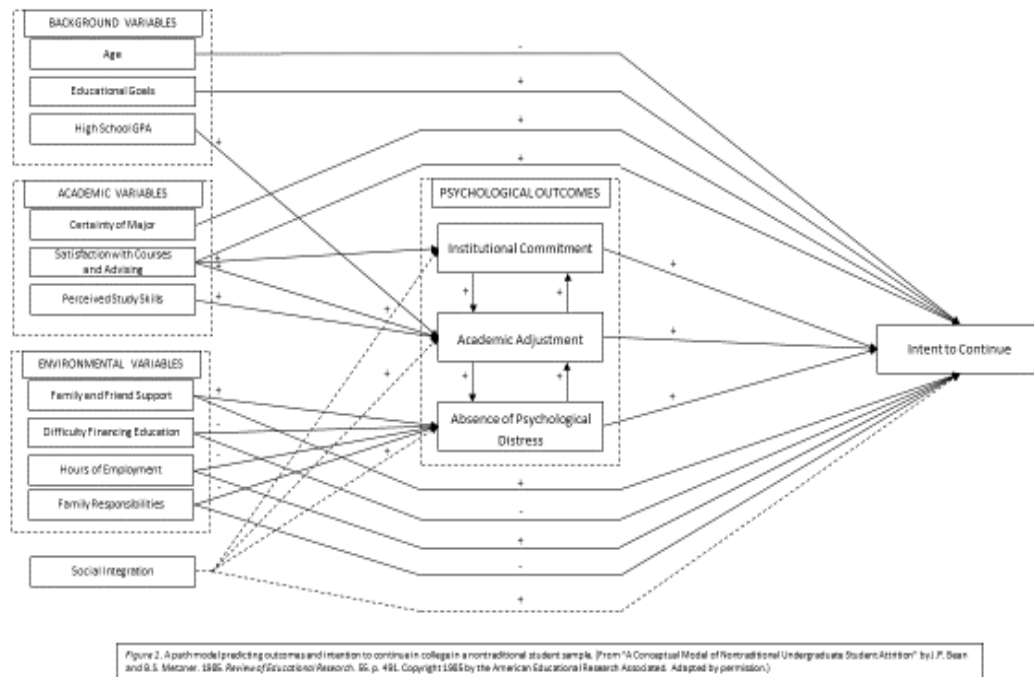
Figure 6. Nontraditional Student Desire to Continue in School Model. Adapted from "An Empirical Test of a Model of Nontraditional Student Adjustment", by J. M. Chartrand, 1992, *Journal of Counseling Psychology, 39,* p. 195. Copyright 1992 by the American Psychological Association.

The results of the study indicated that academic variables had the largest effect on academic adjustment and intent to continue, while environmental factors had the largest effect on the absence of psychological distress. (Chartrand, 1992).

By reintroducing environmental factors into the model, Chartrand was able to show how important outside influences are to the psychological well-being of the nontraditional student. Of all the environmental factors tested, the support of family and friends again had the largest effect on both the absence of psychological distress and the intent to continue (Chartrand, 1992). This is an important variable for the current study in that it indicates how the perception of a lack of social support can result in the presence of greater psychological distress, which then affects the student's intent and determination to continue in school.

What Chartrand's model does not do is consider events that happened in the past that may be affecting the environmental variables in the present, or how one's previous experiences may affect one's cognitions and world views, and thus one's social integration. For that type of model we will need to examine the Donald and Grahams (1999) Nontraditional student Transition model.

Donald and Graham's transition model. Donaldson and Graham (1999) introduced a nontraditional student's model of college adjustment that is heavily based on the work of Kasworm (1990a, 1990b), Kasworm and Pike (1994), and others. This model was meant to reflect how nontraditional students use their previous experiences, prior knowledge, and wisdom to incorporate and comprehend new material being learned, and

to understand that material in a way that results in shifts of previous understandings

(Donaldson & Graham, 1999). Past experiences also influence how nontraditional

students view the world and how they think, so this too became part of the model. In

addition, the model was meant to incorporate the findings from Kasworm (1994) that

nontraditional students use the classroom experience differently than traditional students,

finding that the classroom is the central place of interaction between the nontraditional

student's home life and academic life.

Figure 7. Donaldson and Graham's Model of College Outcomes for Nontraditional
Students. Adapted from "A Model of College Outcomes for Adults" by J. F. Donaldson
and S. Graham,.1999, *Adult Education Quarterly, 50,* p28. Copyright 1999 by Sage
Publishing. Adapted with permission.

The model proposed by Donaldson and Graham (1999) (See figure 7) consists of

six components: prior experiences, psychosocial and value orientations, nontraditional

student cognitions, the connecting classroom, the life-world environment, and possible student outcomes (Donaldson & Graham, 1999). These six components will be presented in more detail in the following sections.

Prior experience and personal biographies. Nontraditional students possess varied prior experiences from work, family life, community participation, and prior schooling that affect how they view school, how they learn, and how they see and interact with other students (Donaldson & Graham, 1999). These past experiences influence the nontraditional student's cognitive structures, including their self-perception, to what degree they value education, and how they interact in the classroom (Donaldson & Graham, 1999). These prior experiences also affect psychosocial elements, such as self-esteem and self-confidence, as well as how they will apply their support in the life-world element to make meaning of their collegiate experiences (Donaldson & Graham, 1999).

Psychosocial and value orientations. The psycho-social and value orientation block contains the psychological motivations, values, and social conditions that affect a nontraditional students ability to learn (Donaldson & Graham, 1999). These may include a lack of confidence in academic skills, a poor evaluation of themselves as learners, or a fear of being too old to learn. A value component may include the nontraditional student's commitment to the student role or how much they value the intrinsic value of their education as opposed to the extrinsic motivation of getting a degree to get ahead at work (Donaldson & Graham, 1999).

Nontraditional student cognitions. The nontraditional student cognition component contains the knowledge structures and learning processes nontraditional students bring with them, as well as those they adopt while in college and in the real world environment (Donaldson & Graham, 1999). This component consists of three parts: declarative and procedural knowledge structures, self-regulatory process, and cognitive operations. The declarative and procedural knowledge structures are developed from prior experiences which relate to conceptions of self, the classroom, and education as a whole, as well as the knowledge that prepares them to study and perform their work responsibilities (Donaldson & Graham, 1999). These elements could include how safe they feel in the classroom, and how well the can trust and open up to others.

The self-regulatory process of nontraditional student's cognitions is the ways nontraditional students have learned through their previous successes and failures to monitor their emotional states, motivation levels, and personal resources to balance their many commitments, and avoid burnout or getting overwhelmed. The cognitive operations component is the manner in which the nontraditional student makes connections between what he/she is learning and the real world, often evaluating what they learn within the content of how valuable it is to them in their jobs or home life (Donaldson & Graham, 1999).

Life-world component. The life-world component represents the different contexts within which the nontraditional student functions, and the ways they are defined by the roles they fulfill at home, work, with family, and in the community (Donaldson &

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Graham, 1999). This component includes social support from family and friends, support from their employer in being allowed the time to go to school, and obligations they may have within the community. These settings often serve as places of learning outside the classroom, as well as being the venue for the nontraditional student's social activities (Donaldson & Graham, 1999).

Connecting classroom. The connecting classroom component refers to the ways nontraditional students employ the classroom, the faculty, and their fellow students to help them learn (Donaldson & Graham, 1999). Nontraditional seek more meaningful interactions with instructors, and value their in-class interactions and learning more than the traditional student, often defining their college experience by the quality of these interactions (Donaldson & Graham, 1999). Donaldson and Graham state that "the classroom is seen as the fulcrum of the college experience for nontraditional students, mediating the psychosocial and value orientation, the life-world environment, the nontraditional student cognition, and the outcome components involved in the collegiate experience (1999, p31.).

Outcomes. The outcome component addresses the many different potential outcomes for nontraditional students. For example, some may place emphasis on simply attaining a degree in which to achieve a promotion at work, while others may find greater satisfaction in how their new knowledge changes their view of the world. Knowledge that may help on the job or at home with the family is often more highly valued. How the college experience affects and shapes nontraditional students, and how well they integrate

what they learn into their real world experiences represent other possible outcomes

nontraditional students may value (Donaldson & Graham, 1999).

Studies utilizing the Donaldson and Graham (1999) model. Although no studies

have utilized the entire Donaldson and Graham (1999) model, there are two studies that

applied portions of the model. The first is a study conducted by Justice and Dorman

(2001) that examined the differences between traditional students and non-traditional

students incorporating several factors of metacognition. Utilizing two of the blocks from

the Donaldson and Graham (1999) model, the psychosocial and value orientation block

and the nontraditional student cognition block, the authors examined motivation and self-

confidence (psychosocial block), and metacognitive knowledge (nontraditional student

cognition block) (Justice & Dorman, 2001). The cognitive subscales areas included

general study activities, specific processing strategies, cognitive monitoring, and self-

evaluation of cognitive ability. The motivational subscales included the intrinsic value of

the coursework, self-efficacy, and test anxiety. The study also included a measurement of

memory retention. The results indicated that while there was no significant difference

between traditional and nontraditional students with regards to the motivation or the

memory factors, there was a significant difference relative to the cognitive factors.

Specifically, nontraditional students were found to use two higher level cognitive

strategies more often than their traditional student counterparts: hyper-processing and

generation of constructive information (Justice & Dorman, 2001). These results indicated

that there are differences in the methods utilized by nontraditional students and traditional

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students when processing and using information, thus verifying the legitimacy of the cognition block of the Donaldson and Graham (1999) model.

The second study to utilize parts of the Donaldson and Graham (1999) model examined how 3 blocks of the model, prior experience and personal biographies, the connecting classroom, and life-world experiences, would rate differently between traditional and nontraditional students (Philibert, Allen, & Elleven, 2008). Utilizing an instrument designed for the study to measure components of the three blocks, the researchers found that there was a significant difference between traditional and nontraditional students on the scores for the three blocks. Post-hoc analysis found that the life-world experience block contributed the most in differentiating between the groups (Philibert, Allen, & Elleven, 2008). These results provide evidence that nontraditional and traditional students differ in their utilization of the classroom, as well as in their life outside the classroom and the experiences they bring with them. These results validate the prior experience, life environment, and connecting classroom blocks of the Donaldson and Graham (1999) model.

Summary. In this section the differences between traditional and nontraditional students were examined, the strengths and weaknesses of some of the nontraditional student models were presented, and the Donaldson and Graham (1999) model of college outcomes upon which this study's model is based was presented and its features explained in detail. Finally, the two studies that utilized parts of the Donaldson and Graham model (1999) were examined. The results of these studies validated 5 of the six blocks of the

model, leaving only the outcomes block untested. The next section will outline the components of the model presented for this study.

The Combat Soldiers Transition to School Model (CoSTS) Factors

In this section the components of the Combat Soldiers Transition to School (CoSTS) model will be examined, as well as their interactions with the other components in the model. In Chapter I, and earlier in this chapter, the relationship between combat exposure and psychological issues was explored, so that discussion will not be duplicated here. This section will look at trust, empathy, social support, gender issues, how combat exposure and psychological trauma may affect these factors, and how these factors relate to each other and college adjustment.

The Combat Soldiers Transition to School model. The Combat Soldier's Transition to School (CoSTS) model was introduced in Chapter 1. The model, (See Figure 8) is adapted from the 1999 Donaldson and Graham Model by moving the cognitive variables, trust and empathy, to a more forward position in the model allowing their effect on social support and the connecting classroom to be measured. The direction of influence from the life-world environment and the nontraditional student cognitions blocks to the psychosocial and value orientation block have been reversed to illustrate the effect psychological distress has on social support, empathy, trust, and adjustment to college. The following discussion will examine the individual components of the model that have not been previously expanded on; trust, empathy, and social support.
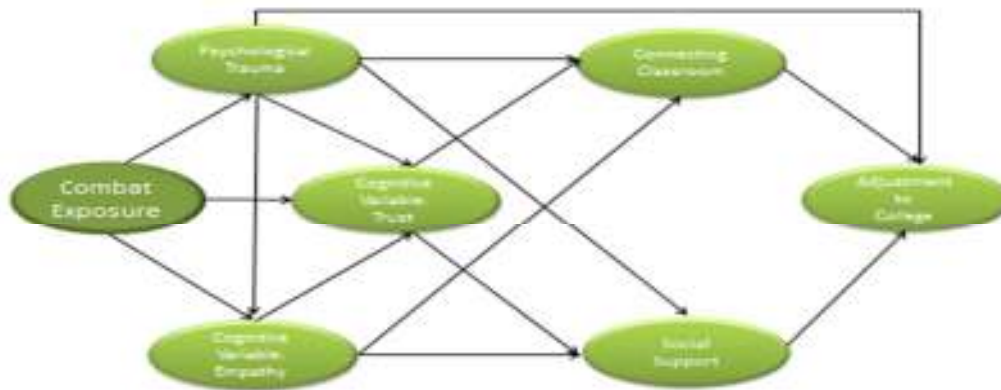
Figure 8. The Combat Soldiers Transition to School (CoSTS) Model

Trust. The concept of trust is applied in a variety of manners over a number of disciplines. For instance, some view trust as a personality trait that develops early in life and remains relatively stable over the lifespan (Rotter, 1980), whereas others believe trust is a behavioral intention (Mayer, Davis, & Schoorman, 1995; Rousseau, Sitkin, Burt, & Camerer, 1998). Lewis and Weigen (1985) viewed trust as a multidimensional social reality with cognitive, affective and behavioral components. Two studies conducted in the mid to late 1990's helped to clarify the definition of trust. Mayer et al. (1995) proposed an integrative model of organizational trust, defining trust as the "willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (p. 712). Rousseau et al. (1998) conducted a cross disciplinary study of trust and defined trust as a psychological state comprising of the

intention to accept vulnerability based on positive expectations of the intentions or behaviors of others. These definitions emphasize two vital components of trust: the willingness to be vulnerable to another and the positive expectations that the person within whom the trust has been placed will perform certain actions.

The need to be vulnerable implies that there is risk involved, that one must take a risk in order to engage in trusting actions (Mayer et al., 1995; Rempel, Holmes, & Zanna, 1985; Rousseau et al., 1998). Thus the greater the risk, the more trust required. Rousseau also highlighted a second condition for trust to arise; an interdependence of the parties where one party cannot achieve its goals without reliance on the other (Rousseau et al., 1998). Therefore the deeper the interdependence of the parties, and the higher the risk of the situation, the more trust will develop between the parties. This may be one explanation why soldiers form incredibly close bonds when going to combat; there are few situations where the risk is higher, and they are highly dependent upon one another to competently perform their jobs under any and all circumstances. This type of trust builds a strong emotional bond between participants (Lewis & Weigert, 1985). Without that level of trust in each other soldiers, marines, sailors, and airmen going into combat would never be willing to assume the risks necessary to complete their mission. This strong correlation between trust and the willingness to take risks has been verified by several studies (Colquitt, Scott, & LePine, 2007; Lewis & Weigert, 1985; Mayer et al., 1995).

Not all trust situations are the same. The authors of a study conducted to verify an assessment of trust orientation found that there were two types of trust: a generalized

propensity to believe that human nature is honest, and a relational trust in which people

have faith in their relationships (Couch et al., 1996). High levels of general trust imply a

belief in the benevolence of others' intentions, while those with low levels of general trust

tend to be more guarded and skeptical (Yanagishi, Kikuchi, & Kosugi, 1999). The

general willingness to trust others is thought to be a stable personality trait (Mayer et al.,

1995; Ross & LaCroix, 1996), and is most relevant when there is no specific information

concerning a particular person (Yanagishi et al., 1999). Generally trustful individuals are

found to have a higher general expectation of others trustworthiness, and are more

vigilant in socially uncertain situations for information revealing a lack of trustworthiness

in others (Yanagishi et al., 1999).

Interpersonal trust has been defined as the general expectation that the word or

promise of an individual or group can be relied upon (Rotter, 1980). Larzelere and

Huston (1980) found two attributes of interpersonal trust; the partner's benevolence,

which is the partner's genuine concern for the truster's welfare, and the partner's honesty,

which indicates the extent to which they can be believed. It is the partner's benevolence

that allows the person to feel comfortable despite becoming more intimate and vulnerable

(Larzelere, & Huston, 1980). Thus interpersonal trust evolves out of past experiences

and interactions between people, by feeling confident and secure in the caring response of

the partner (Rempel, Holmes, & Zanna, 1985). Mayer et al. (1995) added a third attribute,

the ability and competency of the individual or group to perform the required task. After

all, one would have little confidence in their partner to perform brain surgery if that was

not his/her job, no matter how benevolent and honest the partner was. Only after examining these factors and determining if the level of trust surpasses the perceived risk threshold will the risk to trust be accepted (Mayer et al., 1995).

Trust is vital in any society for it enables cooperative behavior and reduces harmful conflict (Rousseau et al., 1998). Trust between individuals allows relationships to be built (Larzelere & Huston, 1980), and creates an environment in which intense emotional investments can be made (Lewis & Weigert, 1985). As mentioned in chapter one, people experiencing higher levels of trust tend to be emotionally better off. Individuals who are more trusting have been found to be generally happier, more desirable to have as a close friend, and more ethical (Gurtman, 1992; Rotter, 1980). Those who express a lack of trust are found to be in greater distress and were more maladjusted (Gurtman, 1992; Rotter, 1980). Distrusting individuals also reported being more competitive, envious, resentful, vindictive, and having a general lack of feeling towards others (Gurtman, 1992). Without the ability to trust we would not have a peaceful society or meaningful relationships. It is this ability to trust that Shay (2009) claims has been destroyed in our veterans.

Empathy. As stated in the introduction to this study, empathy is the ability to sense and give credence to another person's inner states (Hanson & Mendius, 2009). Researchers have found that empathy has two components: cognitive empathy, which is defined as the intellectual/conceptual understanding of another's mental state, and emotional empathy, which is one's emotional response to the emotions of others

(Lawrence et al., 2004). Cognitive empathy is our ability to think about how a person must be feeling in a certain situation. Both men and women score similarly regarding this aspect of empathy (Skoe, 2010). Emotional empathy is the ability to feel in one's own body the emotions of another. Emotional empathy is activated by mirror neurons in the brain, which are networks in the brain that activate when performing an action or observing someone else perform an action (Hanson & Mendius, 2009). These circuits also light up when experiencing strong emotions or witnessing someone else having these emotions. We can actually feel the emotional states of others by acknowledging the emotional states in our own bodies, as our emotional states echo theirs. It follows then that the greater the consciousness of one's own emotional states, the more accurate we recognize the emotional states of others (Hanson & Mendius, 2009). Women tend to achieve higher scores than men on measures of emotional empathy (Skoe, 2010).

Empathy is a necessary component of interpersonal relationships. Keefe (1976) stated that "empathy is the binding substance of the human relationship by which people transmit their culture, their humanity. The knowledge that people feel in similar ways and share some common needs becomes the basis of trust and of relatedness to others" (p. 10). The perception that one's partner has empathy toward them has been shown to increase relationship satisfaction (Busby & Brandt, 2008; Waldinger et al., 2004)). In fact, one study found that the perception of empathetic effort by ones partner was more important for relationship satisfaction than the accuracy of the empathic response (Cohen, Schulz, Weiss, & Waldinger, 2012).

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Combat exposure, psychological distress and empathy. Although no studies were found that examined the empathy levels of combat veterans verses non-veterans, the author of this study has noted a marked lack of empathy on the part of the combat veteran for their partner's distress during counseling. In studies of nonveterans, a lack of affective empathy has been found to be negatively correlated with aggression in children and adolescents (Lovett & Sheffield, 2007), and also has a correlation with males who commit criminal offenses, with frequent offenders having lower empathy scores than occasional offenders (Jolliffe & Farrington, 2007).

Veterans of the Iraq and Afghanistan wars have been found to demonstrate more violent behaviors than veterans of any other war era (Fontana & Rosenheck, 2008). One study of veterans with impulsive aggression issues found that the veteran's empathetic deficits significantly predicted the propensity to use verbal aggression (Teten, Miller, Bailey, Dunn, & Kent, 2008). Another study examining the relationship between alcohol use, PTSD, combat exposure, and aggression found that increased combat exposure and increased PTSD symptoms significantly increased the propensity toward physical aggression for Iraq and Afghanistan veterans (Stappenbeck, Hellmuth, Simpson, & Jakupeak, 2014). These types of angry outbursts and aggressive acts can create fear and distrust in family, friends, and partners (Rosenheck & Fontana, 1998).

Anger dysregulation is often associated with PTSD in military populations. In particular, the PTSD symptom clusters of arousal and numbing have been found to be highly predictive of family dysfunction for combat veterans (Galovski & Lyons, 2004).

These symptoms may affect the veteran's ability to empathize; if one is actively trying to not feel one's own pain then one would not be able to feel another's pain. McFarlane and Bookless (2001) found that traumatic memories can disrupt attachments and lead to progressive distancing, and that the numbing that is part of PTSD can be experienced as a loss of empathy and as hardening. In addition they found that traumatic experiences may have a negative effect on self-awareness, intimacy, sexuality, and communication, all of which are importance aspects of relationships (McFarlane & Bookless, 2001).

While PTSD has been shown to affect the ability to empathize and is associated with increased anger, most veterans do not develop any PTSD symptoms. Therefore there must be other causative agents for the anger and low empathy levels exhibited by many veterans. The authors of one study that examined aggression in the military suggested another possibility. They stated,

> By definition, engaging in combat requires some degree of aggression and/or hostility. Anger and aggression are often perceived as strengths that facilitate bravery and combat readiness, while empathy and sensitivity are perceived to be liabilities in a combat situation. Veterans and service members sometimes feel that being 'hard' and aggressive is what keeps them alive. A significant part of military training hones the skills of making split-second decisions to respond aggressively to any hint of danger. Emotions such as fear and compassion would only serve as distractions to hinder those responses (Morland, Love, Mackintosh, Greene, & Rosen, 2012, p. 306).

By their very nature, military training and combat operations may act to dull empathetic responses and promote aggression, which is a highly adaptive behavior in a combat environment but not as welcome when they return home. Shay (2009) states that

the main psychological issue from war is that veteran's bring into civilian life the valid adaptive behaviors that kept them alive in combat. These learned behaviors and ways of thinking affect their relationships, both at home and at school.

Social support. Social support, the support one receives from friends and family, has been found to be one of the strongest defense against the development of psychological distress following a traumatic event, with several studies showing that a lack of social support at the time of the event predicted the development of depressive, and PTSD symptoms (Borja, Callahan, & Long, 2006; Briere & Spinazzola, 2005; Flannery, 1990; Johnson et al, 2009; Tural et al., 2004). Social support also has been found to moderate the effects of trauma experienced after the event, becoming more important as time elapses (Johnson et al., 2007; Ozer, Best, Lipsey, & Weiss, 2003). This holds true for veterans as well. Fontana and Rosenheck (1998) found that post-military social support from family and friends played an important role in reducing PTSD symptoms, especially in female soldiers, and that isolation at the time of homecoming from war was one of the strongest predictors of PTSD.

Not all types of social support work equally well to help ward off psychological injuries. One study examining resiliency factors in Vietnam veterans found two types of social support; structural support, which is the size and complexity of the social support structure, and functional support, which is the emotional and instrumental assistance offered by the support network (King, King, Fairbank, Keane, & Adams, 1998). While structural support predicted the amount of functional support the veterans received, it was

the functional support that had the largest impact on PTSD symptoms. Another study looking at the types of social support in the literature found that it was the perception of having a good support system that was consistently correlated with positive psychological outcomes (Kaniasty, 2005). These results indicate that while having a large support network is good, the perception of having a good support system and the nature of the actual support offered by the network is even more critical.

Social support is proposed to have its influence on traumatic stress through its influence on the victims interpretation of the events (Guay, Billette, & Marchand, 2006).. The more the victim blames him/herself for actions or lack of actions during the traumatic event, the more likely they are to withdraw and not discuss the event. The less a victim of traumatic events confides in others, the less they will assimilate the trauma and the more likely they are to develop PTSD symptoms (Guay et al., 2006). It would appear that social support networks provide a safe, nonjudgmental environment that allows the trauma victim to process traumatic memories while receiving the emotional support needed to heal. Intimate social support, people who can be confided in and whose caring is deemed particularly important, has been found to be the most salient type of social support in reducing psychological symptoms after an experience of trauma (Sarason, Sarason, Shearin, & Pierce, 1987).

Psychological trauma's effect on social support. Many of the symptoms of PTSD, especially anger and withdrawal, can have a negative effect on relationships and the social support they provide (Guay et al., 2006). A study published in 2009 which

examined previous studies on veterans and their home lives after deployment, both for previous wars and the current engagements, found that PTSD symptoms were strongly associated with intimate relationship issues, as well as a number of other family issues (Monson, Taft, & Fredman, 2009). In addition, the study found that for men, it was not the combat exposure itself that led to difficulties, but rather the avoidance/numbing symptoms of PTSD that led to intimacy issues. For women though, it was found that there was also a direct link between combat exposure and relationship issues. A previous study found that for both men and women the traumatic experience itself may have detrimental effects on self-awareness, sexuality, intimacy, and communication- all vital to the health of the relationship (McFarlane & Bookless, 2001).

A study examining the connection between PTSD and marital satisfaction found that active PTSD symptoms correlated with decreased marital satisfaction, diminished confidence in the relationship, and higher levels of negative communication between the spouses (Allen, Rhoades, Stanley, & Markman, 2010). This echoes previous findings in a study of 1512 Desert Storm veterans that found that the negative family adjustment of the veterans was caused by the withdrawal/ numbing and the arousal symptoms associated with PTSD (Taft, Schumn, Panuzio, & Protor, 2008). In a more recent study examining the relationship of PTSD, social support, and emotional hiding in veterans of the Iraq and Afghanistan wars, it was found that for each unit increase of emotional hiding there was a 32-44 percent increase in the odds of screening positive for PTSD (Duax, Bohnert, Rauch, & Defever, 2014). It would appear from these studies that the emotional

numbing/withdrawal of PTSD sufferers causes a deterioration in the quality of their

relationships, which can prevent the veteran from processing the traumatic events with

their social support network, which can lead to an increase of PTSD symptoms, resulting

in a vicious downward spiral.

The decrease of social support over time for PTSD sufferers has been documented

in several studies. In a study of Vietnam veterans, Keane and associates found that those

participants that reported PTSD symptoms also reported that the social support they

received decreased over time, whereas it remained stable for those that did not have

PTSD (Keane, Scott, Chavoya, Lamparski. & Fairbanks, 1985). Kaniasty (2005) too

found that perceived social support declined in the aftermath of trauma, and that this

perceived decline actually contributed to the amount of detrimental stress rather than

creating a buffer for it. Another study found that perceived social support may act as a

moderator of distress in the early stages, but when the stressors became too numerous or

chronic the decline in the perceived social support predicted PTSD symptoms at later

stages (Johansen et al., 2007). These studies show that long-term PTSD affects not just

the veteran, but their friends and family too, and that over time their ability to provide

social support deteriorates, placing the veterans even more at risk.

Summary. In this section the factors to be included in the Combat Soldiers

Transition to School model were discussed. The CoSTS model was reintroduced, and the

factors of empathy, trust, and social support were explored. The next section will

summarize the chapter and introduce Chapter III.

Summary

In Chapter II a review of the scholarly literature relevant to this study was conducted. The chapter began with a brief history of the psychological issues experienced by soldiers during war and actions taken by the government to aid the soldier's subsequent transition to civilian life. A section outlining the issues women face in the military and when they leave the military followed this section. The next section reviewed the studies done to date that have examined the Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) soldier's transition to college. The third section focused on nontraditional student transition models to college, with particular focus on the Donald and Graham (1999) nontraditional student transition model. In the final section, the factors comprising the Combat Soldier's Transition to School (CoSTS) Model were examined. Chapter III of the proposal will describe the methods and instruments that will be used to conduct the study, as well as results from the pilot study.

CHAPTER III

METHODOLOGY

In Chapter Two a review of the literature concerning issues affecting veterans' transition to college and an analysis of the current studies on student veterans was presented. The differences between traditional and nontraditional students were addressed, and models of their transition to college were examined. The Combat Soldiers Transition to School (CoSTS) model variables were also presented and discussed; to include the effect of combat on individuals, the effect of psychological distress on empathy, trust, relationships, and college adjustment, how lower levels of empathy and trust can affect social support and relationships in the classroom, and how all of these variables affect college adjustment. The purpose of this chapter is to provide a detailed description of the methods used in the current study, including research questions and hypotheses, participants, procedures, instrumentation, and data analysis. Limitations of the research and changes to the full study based on the pilot study are presented.

The CoSTS Model

Figure 9 below illustrates the Combat Soldiers Transition to School model being tested in this study. The model is intended to not only indicate the overall effect of the variables on college adjustment, but also indicate how the variables interact with each other and which variables have the greatest effect on college adjustment. Therefore the

individual correlations and paths were analyzed as well as the overall model fit and degree of variance explained, giving a clearer picture of the interaction of the variables.
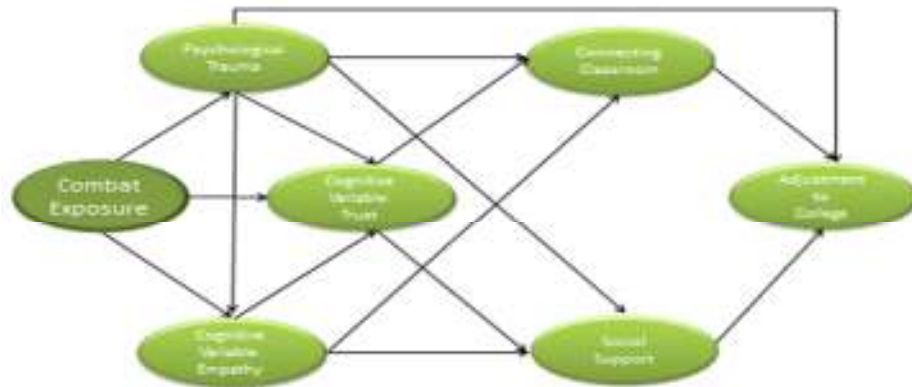
Figure 9. The Combat Soldiers Transition to School (CoSTS) Model

Research Questions and Hypotheses

The three major research questions of the current study were introduced in Chapter One. The research questions along with the corresponding hypotheses are listed below.

Research question 1. What are the levels of trauma-related psychological symptoms being experienced by veterans returning to college?

Hypothesis 1a. The levels of Posttraumatic Stress Disorder (PTSD), as measured by the PTSD Checklist-Military version (PCL-M) (Weathers, Litz, Herman, Huska, & Keane, 1993), and levels of anxiety, depression, and stress, as measured by the

Depression, Anxiety, and Stress Scale (DASS-21) (Lovibond & Lovibond, 1995) will mirror the levels found in the general population of active duty military.

Research question 2. Does the Combat Soldiers Transition to School (CoSTS) model demonstrated fit indexes that indicate a good fit of the model to the data?

Hypothesis 2a. The newly proposed CoSTS model will demonstrate good fit indexes, as measured by the Lisrel program, for military combat veteran students.

Research question 3. How does the psychological and physical trauma of combat affect psychosocial functioning, the ability to empathize, the ability to trust, relationships at home and at school, and how do all these factors interact to affect adjustment to college?

Hypothesis 3a. Greater exposure to combat and its aftermath, as measured by the Combat Exposure Scale (CES) (Keane et al., 1989) and the Aftermath of Battle Scale (ABS) (King, King, & Vogt, 2003), will be correlated with higher levels of PTSD, anxiety, depression, and stress as measured by the PCL-M and the DASS-21.

Hypothesis 3b. Greater exposure to combat and its aftermath will be correlated with lower scores on trust, as measured by the Trust Inventory (TI) (Couch et al., 1996),

Hypothesis 3c. Greater exposure to combat and its aftermath as measured by the CES and ABS will be correlated with lower empathy scores as measured on the E-Scale (Leibetseder et al., 2007).

Hypothesis 3d. Higher scores on the DASS-21 and PCL-M will correlate with lower trust, empathy, and social support levels as measured by the Post-Deployment

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Support Scale (King et al., 2003), and lower connection/alienation levels as measured by the 4 question alienation scale (Elliot et al., 2012), and the Connection Classroom Survey designed by the author for this study .

Hypothesis 3e. Lower scores on the Trust Inventory and the E-Scale will correlate with lower Post-Deployment Support Scale scores and lower alienation and connecting classroom scores. Combat exposure and psychological distress will effect social support and connecting classroom/alienation levels through their effect on trust and empathy levels.

Hypothesis 3f. As combat exposure, psychological issues, and feelings of alienation increase, and trust, empathy, social support, and feelings of being connected in the classroom decrease, college adjustment scores, as measured by the College Adjustment Self-Efficacy Scale (Hirose et al., 1999), would decrease.

Research question 4. Is there a significant difference in the mean scores of males and females on these instruments?

Hypothesis 4a. Female mean scores will indicate significantly better functioning than the mean scores from the male participants.

Participants

Participants were 127 military veterans of Operation Enduring Freedom (OEF) or Operation Iraqi Freedom (OIF) attending universities and colleges in the United States. The participants were no longer on active duty, but may be a part of the reserves or National Guard. Participants must have finished at least 1 semester of college in order for

them to have a GPA. Participants were both undergraduate and graduate students. Because the proposed model is partially based on the relationships between the student veterans and their faculty and peers, only students taking at least 50 percent of their course load in traditional classrooms were used for the study. Since a sample size that corresponds with a 10:1 ratio of cases to free parameters is recommend for complex CFA/path models (Kline, 2005), the current model with 32 freed paths required approximately 320 participants. The first request for participants was sent through the Student Veterans of America (SVA) chapter list serves, which cover more than 1200 chapters at colleges around the world. An incentive of 1 dollar donated to the Wounded Warrior Foundation for every survey completed, up to 300 dollars, was offered. A second notice was sent out three weeks later. A copy of the recruitment letter was also placed in the veteran's center at UNCG and sent out in their weekly update letter.

Procedure

After obtaining approval for the study by the Institutional Review Board (IRB), an email was sent through the Chapter list serves of the SVA and the veteran's list serve at UNCG. The email included a brief description of the study and a link to a video message from the author describing the study and the importance of the study. The email also detailed the approximate time required to complete the survey, a description of the incentives offered to participants, and a link to the survey. The link took participants to the electronic survey, which was hosted on Qualtrix. The first page of the survey contained an informed consent letter informing the participants of the nature of the study,

their privacy rights, the possible harm of the study, the value and usages of the study, confidentiality, and a phone number to call if they had any questions about the survey (See Appendix A). Continuing with the survey implied consent. The survey took participants approximately 25-35 minutes to complete. The data from the returned surveys was entered into LISREL, a statistical software program for structural equation modeling analysis, and in the Statistical Package for the Social Sciences (SPSS).

Instruments

Participants completed an electronic survey that contained several instruments. These instruments included the Combat Exposure Scale (Keane et al., 1989), the Aftermath of Battle Scale and the Post-Deployment Support Scale (King et al., 2003), the PTSD Checklist-Military version (Weathers et al.,1993), the Depression, Anxiety, and Stress Scale (Lovibond & Lovibond, 1995), the Trust Inventory (Couch et al., 1996), the E Scale (Leibetseder, Laireiter, Riepler, & Koller, 2001), the 4 question Alienation Scale designed by Elliot et al. (2012), the Connecting Classroom survey designed by the author for this study, and the College Adjustment Self-Efficacy Scale (CASES) (Hirose et al., 1999). A short demographic questionnaire followed the survey. Figure 10 below shows how the instruments are loaded onto the model. A copy of the instruments is included in Appendix B. The psychometric properties of each instrument are described below.
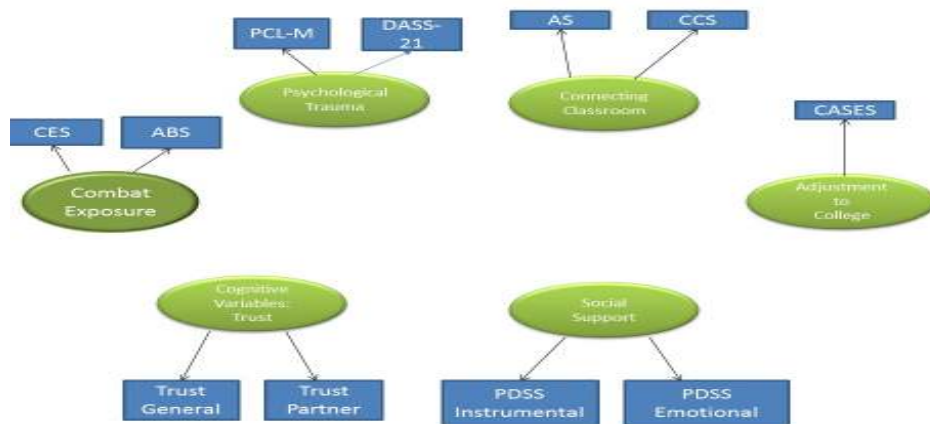
Figure 10. Loading Diagram for Instrumentation of the CoSTS Model

Combat Exposure Scale (CES). Exposure to combat and its aftermath was

assessed using two scales. The first is the 7 item Combat Exposure Scale (CES)

constructed to measure the subjective report of wartime stressors experienced by

combatants (Keane et al., 1989). The seven item scale assesses different types of combat

exposure common to modern wars, including being under fire, seeing others hit by

incoming or outgoing rounds, percentage of personnel in the unit killed or injured, and

being personally in danger of being wounded or killed (Keane et al, 1989). The scale was

originally tested through a series of 3 studies on 362 male combat veterans of the

Vietnam War. The total score for the seven items is a weighted score derived by

calculating each item score according to the instructions (See Appendix3). Higher scores

indicate more combat exposure. Internal consistency of the measure is good, yielding a

Cronbach's alpha of $\alpha = .85$. (Keane et al., 1989). Factor analysis confirmed a single

factor loading accounting for almost 60 percent of the variance. A one week test-retest

yielded a correlation of $r = .97$, and the scores on the CES were significantly related to scores on the Mississippi Scale for Combat Related PTSD, indicating a high correlation between combat exposure and combat related PTSD (Keane et al., 1989).

Recent studies have utilized the CES to determine the level of combat exposure veterans of Iraq and Afghanistan have experienced. These studies include a Rudd et al. (2011) study that examined 252 combat veteran students across the United States. The instrument showed good internal consistency with this population, yielding a reported Cronbach's alpha of $\alpha = .86$. In addition, the authors were able to use the answers on the CES to differentiate between those who had been in a combat zone and those that actually engaged in combat, thus showing its discriminant validity (Rudd et al., 2011). Another study using the CES to examine combat exposure, PTSD and global functioning in Iraq and Afghanistan veterans reported a Cronbach's alpha of $\alpha = .87$ (Miller et al., 2008).

Though the CES was normed using Vietnam veterans, these studies demonstrate the CES's ability to capture the combat exposure experience of Iraq and Afghanistan veterans as well. The CES is short, easy to score, reliable and free to the public to use, all of which are attributes that were considered when choosing it for this study.

Deployment Risk and Resiliency Inventory (DRRI). The two surveys measuring the experiences after battle and post-deployment support are drawn from the Deployment Risk and Resiliency Inventory (DRRI) (King, King, & Vogt, 2003). The DRRI assesses 14 different areas; the subscales are meant to either be used alone or as a

unit (King et al., 2003). This study will utilize two scales of the DRRI; the Aftermath of Battle Scale to assess exposure to the aftermath of combat, and the Post-Deployment Support Scale to measure social support upon returning home.

The DRRI is the product of a four-year Department of Defense/Department of Veterans Affairs-sponsored program the aim of which was to develop a research inventory of risk and resilience measures associated with possible military deployment (King et al., 2003). All measures were derived from a four-phase process that included: (a) using focus groups of veterans who were deployed to the Persian Gulf region in 1990-91 to check content validity; (b) a telephone survey of a Gulf War I veterans to aide in selecting items and establish initial psychometric properties; (c) a national mail survey of Gulf War I veterans to confirm the psychometric properties (d) a final validation telephone survey of a different national sample of Gulf War I veterans to relate scores on the 14 measures to other instruments measuring physical and mental health (King et al., 2003).

A more recent study was conducted to check the validity of the instruments with Iraq veterans (Vogt, Proctor, King, King, & Vasterling, 2008). This study examined the results of giving nine of the DRRI scales to 550 veterans that had just returned from combat in Iraq. The results for all nine scales supported the use of the DRRI with this population (Vogt et al., 2008). Of particular relevance, the Aftermath of Battle Scale had a Cronbach's alpha of $\alpha = .86$, and the Postdeployment Support scale had a Chronbach's alpha of $\alpha = .88$ (Vogt et al., 2008). Evidence for criteria-related validity was

demonstrated by showing the relationships between DRRI scores and other scores related to psychological distress and functional health status. The Aftermath of Battle scale had moderately significant correlations with PTSD and Depression (r = .29 & 15 respectively) and a negative correlation with a measure of mental health functioning (r = -.15). The Post Deployment Social Support Scale had moderate to high negative correlations with PTSD and Depression scores (r = -.32 & -.49), and moderate positive correlations with mental health functioning and cognitive functioning (r = .30 & .25). These findings are consistent with other studies regarding the effects of combat exposure on psychological functioning (Church, 2009; Jaroncyk, 2010; Kaplan, 2008), and the effects of social support on psychological functioning and mental health (Diwan et al., 2004; King, et al., 2003; Needham, 2008; Rosarioet et al., 2008; Ting et al., 2008).

Aftermath of Battle Scale (ABS). The Aftermath of Battle Scale (ABS) examines exposure to the consequences of combat, including handling the remains of civilians, friendly and enemy soldiers, or animals, dealing with POWs, and observing other aftermaths of war such as devastated communities and homeless refugees (King et al., 2003). The scale consists of 15 items to which respondents answer a dichotomous yes or no. The scale ranges from 0-15, with higher scores indicating more exposure. Internal reliability for the scale is high, with a Cronbach's alpha of α = .89 being reported in a telephone survey of 495 veterans (King et al., 2003). Significant correlations have been shown between the ABS and neurocognitive deficits (ranging from r = .21 to .25) and between the ABS and PTSD, Anxiety, and Depression (ranging from .16 to .28). A low

negative correlation was found between the ABS scale and a social desirability scale ($r =$ -.14) (King et al., 2003).

A 2013 study (Caska, & Renshaw) utilized the ABS to study the moderating effects of personality traits on the results of combat exposure and exposure to the aftermath of combat on PTSD symptoms. On advice from one of the authors of the ABS, Caska and Renshaw (2013) used a 4- point Likert format ranging from 1 (never) to 4 (many times) instead of the original dichotomous format. This new format results in a scale ranging from 15-60. When tested for internal consistency the results indicated a Cronbach's alpha of $\alpha = .90$, which is a very high internal consistency rating (Caska & Renshaw, 2013). The authors also correlated the new scale with the original dichotomous scale, resulting in $r = .93$, which indicates that the scoring formats are very similar. Since the Likert format yields more information than a dichotomous format, this study will follow the recommendations set forth by Caska and Renshaw (2013) by utilizing the 4- point Likert format.

Post-Deployment Support Scale (PDSS). The Post-Deployment Support Scale (PDSS) measures the perceived extent to which family, friends, coworkers, employers, and community provide emotional (e.g. "Among my friends and relatives, there is someone who makes me feel better when I am feeling down") (King et al., 2003) and instrumental support ("My friends or relatives would lend me money if I needed it")(King et al., 2003). The PDSS utilizes a 5- point Likert-type scale to assess how much participants agree with the statements, ranging from 1 (Strongly disagree) to 5 (Strongly agree). Scores range from 15 to 75, with higher scores indicating more perceived support. In a reported telephone survey of 495 veterans the results of the PDSS yielded a

Cronbach's alpha of $\alpha = .87$ and a low, non-significant correlation with a social desirability measure ($r = .11$) (King et al., 2003).

In a 2010 study of 272 Iraq and Afghanistan veterans examining the role of resiliency, unit support, and post deployment social support on psychiatric distress, the PDSS demonstrated a very high internal consistency rating, a Chronbach's alpha of $\alpha = .96$ (Pietrzak et al., 2010).

Both of the instruments have demonstrated very high internal consistency with both Gulf War and OEF/OIF veterans. Since these instruments were developed by the National Center for PTSD they are considered in the public domain and free to use. The rigorous testing of the instruments and attention to content validity render the scales of the DRRI the ideal instruments to measure the experiences of Iraq and Afghanistan veterans.

PTSD Checklist-Military version (PCL-M). This study assessed PTSD symptoms using the PTSD Checklist, military version (PCL-M) created by the National Center for PTSD (Weathers et al., 1993). The instrument is a 17-item self-reporting measure whose items can be broken into subscales corresponding to the criteria for PTSD found in the DSM-IV; avoidance and numbing, increased arousal, and re-experiencing (Norris & Hamblen, 2003). Respondents are asked to rate how often they have experienced any of the symptoms in the last month on a 5 point severity scale (Norris & Hamblen, 2003). Total scores range from 17 to 85, with a suggested cutoff score of 50 indicating a positive PTSD diagnosis.

Cronbach's alphas for the original study indicate exceptional internal consistency, with total scale ratings of α = .97 and subscale scores ranging from α = .92 to .94. Test-retest reliability over a three-day period was α = .96. Convergent validity was found to be good, with a correlation score of *r* = .93 when compared to the Mississippi Scale for Combat Related PTSD, and *r* = .90 when compared to the Impact of Event Scale (Norris & Hamblen, 2003).

Although the psychometric information for this instrument was determined using Vietnam veterans with a high rate of PTSD, several recent studies have shown the measure to be effective with the modern veteran population. One such study utilized the PCL-M to assess the PTSD symptoms of 434 Iraq and Afghanistan veteran students, resulting in a reported Cronbach's alpha of α = .97 (Rudd et al., 2011). Other recent studies of Iraq and Afghanistan veterans utilizing the PCL-M include Cigrang et al. (2014) with a reported Cronbach's alpha of α = .95, and a Caska and Resnshaw (2013) study with a reported alpha of α = .94 A 2014 study examining the relationship of alcohol, PTSD, combat exposure and aggression utilized the PCL-M to measure the PTSD symptoms, resulting in a Cronbach's alpha of α = .96 (Stappenbeck et al., 2014). The high internal consistency ratings, its concurrent validity, and the frequent use of the scale with present day soldiers demonstrate its appropriateness for this study.

Depression, Anxiety, and Stress Scale (DASS). Depression, anxiety, and stress symptoms was measured by the Depression, Anxiety, and Stress Scale, short version (Lovibond & Lovibond, 1995). The original Depression, Anxiety, and Stress Scale

(DASS) is a 42-item self-report measure of depression, anxiety, and stress developed by Lovibond and Lovibond (1995). In their initial study Lovibond and Lovibond (1995) administered the measure to a large non-clinical sample ($N = 2,914$).The internal consistency of the measure was acceptable for the depression, anxiety, and stress scales ($\alpha = .91, .84$ and $.90$, respectively). Several studies have been conducted to test the latent structure of the measure and its validity (Antony et al., 1998; Brown et al., 1997; Clara, Cox, & Enns, 2001; Lovibond & Lovibond, 1995), with all studies verifying the three factor solution for the model. In a study of the use of the instrument with a non-clinical sample of 1771 nontraditional students, Crawford and Henry (2003) found that the internal consistencies of the DASS anxiety, depression, stress and total score estimated using Cronbach's alpha were $\alpha = .897$, for the anxiety scale, $\alpha = .947$ for the depression scale, $\alpha = .933$ for the stress scale, and $\alpha = .966$ for the total score.

Convergent validity of the DASS was calculated between each of the DASS scales and the 14 item Hospital Anxiety and Depression Scale (HADS) developed by Zigmond and Snaith (1983) and the Personal Disturbance Scale (sAD), a brief (14-item) self-report measure derived from the Delusions-Symptoms States Inventory (DSSI; Bedford & Foulds, 1978), and consists of seven anxiety and seven depression items. With respect to convergent validity, the DASS depression scale correlated highly with the SAD depression scale ($r = .78$) and the HADS depression scale ($r = .66$). The DASS anxiety scores also exhibited a high convergent validity with the anxiety portion of the aforementioned scales ($r = .67-.72$).

This study utilized the DASS-21, a shortened version of the original DASS scale that is frequently used in non-clinical research to measure mental health factors (Lovibond & Lovibond, 1995). The DASS-21 consists of 21 questions which ask respondents to indicate how much the statement reflects their feelings in the last week. The 4-point Likert-type scale ranges from 0 (does not apply to me at all) to 3 (applied to me very much, or most of the time). The final scores need to be multiplied by 2. The three scales each consist of 7 items; subscale scores range from 0 to 42, with higher scores indicating more distress. Total scale scores range from 0 to 126.

A 2005 study conducted by Henry and Crawford administered the DASS-21 to 1794 participants to test the construct validity of the instrument. The scales all showed good reliability; $\alpha = .88$ for the Depression scale, $\alpha = .82$ for the Anxiety scale, $\alpha = .90$ for the Stress scale, and $\alpha = .93$ for the total scale. The confirmatory factor analysis tested the three factor underlying structure against competing 4 factor and single factor models, the results agreeing with previous studies that found the 3 factor model to be the best fit to the data. In addition, the authors tested the theory that the stress scale could be synonymous with negative affectivity, finding that the Stress scale was a distinct construct (Henry, & Crawford, 2005).

A more recent study of 508 undergraduates aging 18-24 also found that the three factor structure of the shortened version was valid, and that the instrument was very useful in differentiating between depression and anxiety (Mahmoud, Hall, & Staten,

2010). Internal reliabilities estimates utilizing Cronbach's Alpha indicated excellent reliability for all three scales: Depression α = .90, Anxiety α = .83, and Stress α = .86.

The Dass-21 has been translated into several languages including Vietnamese (Tran, Tran, & Fisher, 2013), Portuguese (Apostolo, Tanner, & Arfken, 2012), and Brazilian Portuguese (Vignola, & Tucci, 2014). Other translations include Chinese, French, Japanese, and Spanish (Norton, 2007). The psychometric data was found to be similar to the above cited studies in all the versions. The DASS-21 also has been validated in both clinical and nonclinical populations (Ronk, Korman, Hooke, & Page, 2013).

The DASS-21 has undergone rigorous testing and its construct validity verified by several studies. It is free to use, relatively short, and easy to score, thus making it ideal for the present study.

Trust Inventory. The Trust Inventory (Couch, Adams, & Jones, 1996), a 40 item measure of trust of people in general and trust in romantic partners, was used to measure the amount of trust veterans have in others. Seven samples (total N=1229) were used in the different phases of the development of the instrument. Twenty items of the scale measure a sense of how trusting the participant generally is of others ("Generally I tend to be distrustful of others")(Couch et al.,1996, p 323), and 20 items measure the respondents trust in their romantic partner ("I feel I can be myself in the presence of my partner")(Couch et al.,1996, p 323). Participants rate their response on a five point scale ranging from 0 (strongly disagree) to 5 (Strongly agree). Higher scores indicate more

trust. Internal consistency of the inventory is excellent, with Cronbach's alphas for the partner scale recorded as α = .92, and the generalized scale as α = .91. Test-retest reliability was likewise good, with alphas of α = .82 and .80 respectively.

Concurrent and discriminant validity was shown using several instruments for each type of trust. Partner trust was compared to three instruments measuring dyadic trust, faith, and emotional trust, with resulting correlations ranging from r = .78 - .84. The General Trust scale demonstrated discriminant validity with correlations to these scales only ranging from r = .38 to .45. The General trust scale was compared to scales measuring interpersonal trust, trustworthiness, and the NEO personality scale, with resulting correlations ranging from r = .66 to .71. The Partner Trust scale displayed discriminant validity from these scales with correlations only ranging from r =.32 to .51.

Although the Trust Inventory was initially shown to have sound psychometrics and good construct validity, the instrument seems to have had little use. In fact, no other studies utilizing the instrument were found in the databases. Unfortunately there are no widely used instruments measuring trust. The Trust Inventory does address the two areas of trust of paramount concern to the author; partner trust and general trust. This, combined with the good initial psychometric properties, makes the instrument usable for this study. Cronbach's alphas will be calculated to ensure good internal consistency.

Connecting Classroom and Alienation Scales. There were two instruments used to measure the connection classroom component of the model. Feelings of alienation from other students and faculty will be assessed by a 4 question survey scale designed by

Elliot et al. (2012) for their study regarding student veterans. The authors state that the four items were developed with "input and pre-testing from the veteran service coordinator and several student veterans" (p.284). The four questions are: a) "When I hear my teachers talking about U.S. military operations I feel unfairly judged"; b) "I sometimes feel like I do not fit in with other students"; c) "I do not like it when people I meet at the university want to know the details of my military experience"; d) "I sometimes feel that I am looked down upon because I am a veteran" (Elliot et al.,2012; p284). Participants are asked how strongly they agree with the statements on a Likert-type scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Scores range from 4 to 20 with higher scores indicating more feelings of alienation. When inputted into the Liseral model the scores will be reversed to align them with the connecting classroom scores, resulting in higher scores indicating less alienation. The Cronbach's Alpha reported for the scale is $\alpha = .67$ which, although normally considered low, was considered reasonable by the authors for a 4 question survey.

The connecting classroom block was assessed by a 23 question scale designed by the author for this study that measures how often participants interact with instructors and peers in and out of the classroom. The questions were drawn from other scales examining student satisfaction and literature detailing issues affecting veterans returning to college. The questions were examined by a professor in the College Counseling tract for face validity and content. The questions fall into six categories: How often the student engaged in activities with their instructors, how often the student engaged in activities

with other students, the classroom environment, the helpfulness and support of faculty members, the support of fellow students, and the respect the student felt from faculty and other students. The questions are on a 5 point Likert-type scale ranging from 0 (never) to 5 (all of the time). Scores range from 23 to 238, with higher scores indicating greater connection between the respondent and their peers and instructors.

A pilot study to test the instrument was sent out on the list serve for nontraditional student/commuter students. (See following section on pilot study for more information on the study itself). 37 participants responded to the survey. The data was run through SPSS Statistical software for data analysis. A scale reliability analysis resulted in a Cronbach's Alpha of $\alpha = .926$, indicating a very high rate of internal consistency for the total scale. There were no items indicated that if removed would increase the Alpha score significantly. The mean score for the total scale was $m = 80.75$. A factor analysis using maximum likelihood extraction and varimax rotation resulted in a 5 factor solution that explained 77.34 percent of the observed variance, with a Chi Square of 186.485, $df = 148$, $p = .018$. The five factors found were labeled by the author as engagement with faculty and students, perceived fellow student characteristics, perceived faculty characteristics, classroom safety, and respect from faculty. No concurrent or discriminant validity checks were performed on the instrument at this time.

E-Scale. Empathy, the ability to recognize, relate to, and understand the emotional state of others, measured by the 25 item E Scale developed by Leibetseder, Laireiter, Riepler, and Koller in 2001. The scale measures both the cognitive and the

emotional components of empathy, as well as real-life versus fictitious scenarios (Leibetseder, Laireiter, & Koller, 2007). The 25 items of the E Scale are scored on a 5 point Likert type scale, and originally theorized to contain 2 factors; fantasy-empathy, the ability to empathetically react to situations in books and movies, and real life empathy, which measures one's empathetic reactions to real life scenarios. A later study conducted in 2007 that reexamined the instrument found 4 factors; cognitive sensitivity, emotional sensitivity, emotional concern, and cognitive concern (Leibetseder et al., 2007). The questions labeled cognitive sensitivity measure how much the participants relate to statements about mentally putting themselves into situations in books or movies ("If I see a movie I often try to imagine how I would feel in the person's place") (Leibetseder et al., 2007, p559) Emotional sensitivity measures how much a person feels when reading a novel or watching a movie ("I can easily relive the feelings of characters in a novel") (Leibetseder et al., 2007, p559) . Emotional concern measures reactions to real-life situations ("I am often very moved by things happening before my eyes") (Leibetseder et al., 2007, p559), whereas cognitive concern measures how much a person tends to analyze emotional situations ('If I see a very aged person, I often ask myself how I would feel in his/her place") (Leibetseder et al., 2007, p.559). Reliability analysis of these factor scales resulted in Cronbach's Alphas of $\alpha = .84$ for cognitive sensitivity, $\alpha = .82$ for emotional sensitivity, $\alpha = .73$ for emotional concern, and $\alpha = .82$ for cognitive concern (Leibetseder et al., 2007).

Although the 2007 study found a four factor model and one general construct of empathy using the total score, a later study (Tran et al., 2013) found that the E scale distinguished sensitivity from concern better than it distinguished between the cognitive and emotional components of empathy. Internal consistency analysis for the scales in this study resulted in Cronbach Alphas of $\alpha = .92$ for the total scale, $\alpha = .88$ for the Cognitive Sensitivity scale, $\alpha = .87$ for the Emotional Sensitivity, $\alpha = .76$ for Emotional Concern, and $\alpha = .66$ for Cognitive Concern (Tran et al., 2013). The authors of the study suggested combining the cognitive and emotional sensitivity questions into one group labeled Sensitivity, and combining the cognitive and emotional concern questions into another group labeled Concern. Reliability analysis of this grouping resulted in Cronbach's Alphas of $\alpha = .92$ for Sensitivity and $\alpha = .83$ for Concern (Tran et al., 2013). Since this new grouping increased the internal consistency of the scales, the two group model of Concern and Sensitivity will be used for this study.

Leibetseder et al. (2007) ran three separate studies to examine the construct and convergent validity of the E scale. The first study compared the E scale with two other empathy measures, a questionnaire on social intelligence, to measures of pro-social orientation and nurturance, and to a measure of social support. The empathy measures were very closely correlated, with Pearson correlations ranging from $r = .49$ to $.68$. Significant correlations were found with the other measures as well.

The second study examined how the E scale related to measures of anxiety, self-esteem, and perceived regard from others. The results indicated a medium correlation

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between levels of anxiety and empathy with Pearson correlations ranging from $r = .22$ to .49, verifying the authors' assumptions that people with higher anxiety would be more sensitive towards others in critical situations. Self-esteem had significant but weaker negative correlations, with Pearson's correlations ranging from $r = -.11$ to $-.24$. This again was consistent with the authors' prediction that those with lower self-esteem would be more sensitive to the needs of others (Leibetseder et al., 2007).

The third study conducted by Leibetseder and his colleagues examined the relationship between the E scale and partner rated interpersonal-sensitivity. The results indicated a weak to moderate positive correlation between the two scales, with Pearson correlations between the different scales ranging from $r = .01$ to .32. This was consistent with the authors' theory that those who are more empathetic would have more interpersonal sensitivity, and thus better relationships (Leibetseder et al., 2007).

In the Tran and colleagues 2013 study the authors also found a difference in scores due to gender, with women scoring significantly higher than men for empathy, especially in respect to real-life situations (Tran et al., 2013). This finding is consistent with other empathy studies that have found that women score significantly higher on the emotional aspects of empathy, but not on the cognitive perspective taking aspects, than men (Cohen, & Strayer, 1996: Skoe, 2010).

Although the E scale has strong internal consistency and good validity, its underlying structures have been challenged. The scale started with a two factor model, moved to a 4 factor model, and then back to a different two factor model proposed by

Tran et al. (2013). Although this may appear to threaten the validity of the instrument, the combining of the cognitive and emotional scales in the Tran et al. (2013) study actually resulted in a model very similar to the original, with the Sensitivity scale measuring reactions to fictional situations in books and movies while the Concern scale measures reactions to real life situations. So it would appear that the original structure is valid. The validity of the instrument has been well tested, and the internal consistency of the two scales is good. This study will use the individual subscale scores and not the total score to help avoid any conflicts with how the underlying structures relate.

College Adjustment Self-Efficacy Scale (CASES). College adjustment was measured by two variables, GPA and the College Adjustment Self-Efficacy Scale (CASES)(Hirose et al., 1999). The CASES is a 21-item scale constructed to evaluate the self-efficacy of the student's skills necessary for a successful adjustment to college. The CASES consists of three 7-item subscales: judgmental skills, self-control skills, and interpersonal skills (Hirose et al., 1999). Total scores range from 0 to 84. Judgmental skills refer to the ability to make judgments based on objective information, the ability to solve a problem accurately. Self-control skills refer to the ability to have controlled persistence, to be able to achieve goals through one's own will. The interpersonal skills scale measures the competency to work well with others (Hirose et al., 1999).

The pilot study for the scale, which was taken by 1002 college students, originally contained 51 items. After the pilot study that was narrowed to 30 items to be tested in the actual study. The participants in that study were asked to indicate on a 5-point Likert

scale ranging from 0 (Not Confident at all) to 4 (Strongly confident) their degree of confidence in their ability to complete the listed tasks. A factor analysis with varimax rotation was executed, with three factors being extracted. Nine items were eliminated due to low communality with other items or a high factor loading on two factors. The 21 remaining items had on overall Cronbachs alpha of $\alpha = .883$, indicating a good internal reliability (Hirose et al., 1999).

The three factors that were extracted, judgmental ability, self-control, and interpersonal relationship skill, had seven items each. The alpha coefficients were $\alpha = .815$ for judgmental ability, $\alpha = .817$ for self-control, and $\alpha = .751$ for interpersonal relationships. A convergent validity check was done with the Rosenberg Self-Esteem scale, resulting in a correlation of $r = .540$, which the author stated was similar to other studies, indicating that self-esteem is somewhat related to self-efficacy (Hirose et al., 1999). In a check of external validity the CASES was given to two groups of students; those who were reported as well adjusted and those that were reported as poorly adjusted. The CASES was able to differentiate between the two groups, with the well-adjusted group scoring significantly higher (Hirose et al., 1999).

A recent study was conducted in 2011 to evaluate the CASES for use with Turkish students (Orucu & Demir, 2011). The internal consistency was found to be $\alpha = .82$ for the total scale, $\alpha = .79$ for the judgment scale, $\alpha = .76$ for the self-control scale, and $\alpha = .65$ for the interpersonal scale. These were slightly lower but still consistent with the original assessment. The authors evaluated the three factor model verses one factor

model using structural equation modeling, finding that the three factor model was a good fit for the data whereas the one factor model proved not to be a good fit, thus verifying the underlying three factors of the scale.

The CASES is fairly short and measures an important aspect of college adjustment. The instrument has sound psychometric properties and good validity. In addition, unlike many instruments used to assess college adjustment, there is no charge to use the instrument. Therefore it is a good instrument for this study.

Demographics. The instrument included a demographics section that contained questions on age, race, gender, number of deployments, the length of time since their last deployment, the length of time since their separation from active duty, their Military Occupational Specialty, and their marital status. There was one question to assess current or previous mental health treatment.

Data Analysis

Research question 1. What are the levels of psychological trauma being experienced by veterans returning to college? Research question one was assessed by scores on the PCL-M and the DASS-21. Higher scores indicated higher levels of distress. The scores were compared to both the rates found in the active duty military population and the rates found in the recent Rudd et al. (2011) study of student veterans (See Table 1).

Research question 2. Does the Combat Soldiers Transition to School (CoSTS) model demonstrate good fit indexes for student veterans? Research question 2 was

assessed by loading each item into LISREL according to the CFA model. A CFA

analysis was conducted to ensure that the factors load onto the variables as predicted. The

parameter estimates for the model were checked to establish that they are all within

range, with no correlation being above 1 and with no negative variances. The standard

errors will also be checked to ensure they are within range of each other. The t statistic

for each of the factor loadings was checked for significance, and the squared multiple

correlations for all of the latent factor loadings were checked to see how much of the

variance in the measured variables is accounted for by the assigned latent variable. Low

factor loadings may indicate a missing latent variable.

Next the structural model was assessed to determine if the model fit indexes

indicated that the model fits with the data. The $\chi 2$ for the model should not be significant

when there is a good fit. The root mean square error of approximation (RMSEA) should

be below the accepted cutoff value of .1, and the entire 90 percent confidence interval for

RMSEA should be below the accepted cutoff level. The Comparative Fit Index (CFI)

should be above the suggested 0.95 indicator for an excellent fit. The standardized root

mean square residue (SRMR) should be less than the suggested .05 cutoff for a great

model fit.

Research question 3. How does the psychological and physical trauma of combat

affect psychosocial functioning, the ability to empathize, the ability to trust, relationships

at home and at school, and how do all of these factors interact to affect adjustment to

college? Research question 3 was tested by running a series of stepwise regressions on

the different variables of the model, utilizing the CoSTS model paths as a guide. The use

of standardized Beta coefficients allowed for the comparison of the different variables.

Higher combat exposure was hypothesized to have a positive correlation with scores on

the PCL-M and the DASS-21, and a negative correlation with scores on the Trust

Inventory and the E-scale (See Table 1). The PCL-M and the DASS-21 scores were

projected to have significant negative correlations with trust, empathy, post-deployment

support scores, and connecting classroom/alienation scores. Trust and empathy was

hypothesized to be positively correlated with social support, and combat exposure and

psychological distress would work through trust and empathy to effect social support.

Post-deployment support scores were hypothesized to have a positive effect on the

Connecting Classroom scores and the College Adjustment Self-efficacy Scale (See Table

1).

Research question 4. Does gender have an effect on the outcomes of the model?

Research question 4 was answered by utilizing a MANOVA with gender as the sorting

variable and all the other instruments as dependent variables.

Changes to the Study Due to the Pilot Study

A pilot study was conducted to assess the reliability, clarity, and factor validity of

the Connecting Classroom instrument. After gaining IRB approval to test the instrument,

a message was sent via the student/commuter list serve inviting nontraditional students

over the age of 25 to take a quick survey. The opportunity to be included in a drawing for

a 25 dollar gift card was offered as an incentive for participation.

Table 1

Table of Hypotheses, Variables, and Analysis

Hypothesis	IV	DV	Analysis
Hypothesis 1a. The levels of Post traumatic Stress Disorder (PTSD), anxiety, depression, and stress will mirror the levels found in the general population of military veterans.		PCL-M, DASS-21	Scale Scores
Hypothesis 2a. The newly proposed model will fit the data for student military veterans.	CoSTS Model,		Structural Equation Modeling
Hypothesis 3a. Higher levels of exposure to combat and its aftermath will be correlated with higher levels of PTSD, anxiety, depression, and stress.	CES, ABS	PCL-M, DASS-21	Stepwise Regression
Hypothesis 3b. Higher levels of exposure to combat will be correlated with lower trust scores.	CES, ABS	Trust inventory	Stepwise Regression
Hypothesis 3c. Higher levels of exposure to combat and its aftermath will be correlated with lower empathy scores	CES, ABS	E-Scale	Stepwise Regression
Hypothesis 3d. Higher scores on the DASS-21 and the PCL-M will correlate with lower trust scores, lower empathy scores, lower social support scores, and lower connecting classroom/alienation scores.	DASS-21, PCL-M	E-Scale Trust Inventory Post-Deployment Support Survey Alienation/classroom Survey	Stepwise Regression
Hypothesis 3e. Lower scores on the Trust Inventory and the E-Scale will correlate with lower Post-Deployment Support Scale scores and lower connecting classroom scores, and combat exposure and psychological distress will effect social support levels through their effect on trust and empathy levels.	TI, E-Scale, CES, ABS, PCL-M, DASS-21	PDSS, Alienation Scale, Connecting Classroom Scale	Stepwise Regression
Hypothesis 3f. . As combat exposure, psychological issues, and feelings of alienation increase, and trust, empathy, social support, and feelings of being connected in the classroom decrease, college adjustment scores, would decrease	CESS, DRRI, DASS-21,PCL-M, Trust Inventory, E-Scale, Post Deployment Survey, Alienation/Cl assroom Survey.	CASES	Stepwise Regression
Hypothesis 4A. Gender will have a significant effect on the outcomes of the model	Gender	CASES	MANOVA

The survey included an informed consent statement that the participant was required to accept to complete the survey. The survey consisted of the 23 items of the Connected Classroom survey, two open ended questions asking for input on how the survey matched the participants experience and what they would add to improve the survey. In addition, demographic questions regarding age, gender, ethnicity, year in college, and military service were included. (See Appendix C for copy of survey).

There were 37 participants who completed the survey. The average age of the participants was 31 years old, 32 of them were female, 73 percent indicated White as their ethnicity, and 30 of them were juniors, seniors, or graduate students. Only one of the participants indicated that he had prior military service.

The data was input into a SPSS data program. A scale reliability analysis of the total scale resulted in a Cronbach's Alpha of $\alpha = .926$, indicating a very high rate of internal consistency. The mean score for the total scale was $m = 80.75$. A factor analysis using maximum likelihood extraction and varimax rotation resulted in a 5 factor solution that explained 77.34 percent of the observed variance, with a Chi Square of 186.485, $df = 148$, $p = .018$. The five factors found were labeled engagement with faculty and students, perceived fellow student characteristics, perceived faculty characteristics, classroom safety, and respect shown by faculty (See Appendix C for factor loadings.) These loadings were fairly consistent with the original underlying structure of the scale. The results collapsed the two original categories of engagement with faculty and engagement with fellow students into one category labeled engagement. The other

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categories found were labeled student perceived characteristics, faculty perceived characteristics, safety, and faculty respect.

Most of the questions within the engagement group loaded solidly onto the factor, with the exception being the question asking how often the participant discussed ideas from readings or assignments with fellow students outside of class. This item loaded on both the engagement factor and on the student characteristics factor, with a slightly higher loading on the student characteristic factor. This may be due to a high correlation between the approachability of others and willingness to talk and one's desire to talk with them.

The original classroom environment questions were about feelings of safety and belonging in the classroom. The two questions about feeling safe both loaded on a separate factor labeled safety, while the other two questions about class content and feeling like a community of learners loaded on the student characteristics factor. While the loading of the question on feeling like a community of learners seems to fit under the factor labeled fellow student characteristics, the loading of the question on class material relating to real world concepts obviously does not belong here. So the question is either poorly worded or has no place in the survey. Therefore this question will be dropped from the final survey.

The questions asking about perceived characteristics of fellow students and of faculty each loaded onto their own factors. The issue with the question regarding perceived faculty availability was that it loaded higher on the perceived student

characteristic factor than on the perceived faculty characteristic factor. It would appear that there is some confusion as to whether the question concerns the availability of the student or of the faculty member. Wording will be changed slightly on this question to place emphasis on the willingness of faculty to be available

The original two questions regarding respect of faculty and students were split into two different factors. The question about feeling respected by fellow students loaded on to the perceived characteristics of fellow student factor, which makes logical sense. The question regarding perceived respect from faculty loaded onto two factors; faculty characteristics and a new factor labeled faculty respect, with the higher loading being on the latter. This indicates the importance for nontraditional student students of feeling respected by faculty members, even more than being respected by fellow students.

Ten of the participants left comments on the open ended questions (See Appendix C). While most of the comments were not useful in changing the instrument, there were three themes that could be incorporated. One suggestion was to add a question about feelings of disconnection with other students. This question will be addressed by one of the Feelings of Alienation questions that states "I sometimes feel like I do not fit in with other students" (Elliot et al., 2012). Other suggestions were to add questions about fitting into the college environment and whether the faculty seem to know the difficulties nontraditional students have in balancing home and family obligations, work, and school responsibilities, and finding time for self-care. These questions will be added to the survey.

Summary

Although the pilot study data indicated that the instrument has strong internal consistency and that the factors are consistent with the author's original intent, some improvements will be made to the instrument. The question about how material relates to the outside world does not seem to fit with the other questions and therefore will be removed. The question regarding faculty availability will be reworded to indicate the faculty member's willingness to be available to students. Two questions will be added to the survey, one to measure feelings of fitting into the college environment and one about perceptions of faculty's understanding of the nontraditional students conflicting roles. These additions and modifications should render the Connecting Classroom survey slightly more comprehensive and coherent.

CHAPTER IV

RESULTS

The current study was designed to assess how exposure to combat and its aftermath affects psychological functioning; how both combat exposure and the resulting psychological distress affects student veteran's ability to trust and to empathize thus affecting their relationships at home and at school; and how all of these factors affect veteran's transition to college. In this chapter, the results of the data analyses are presented. First, demographics of the participants are described. Next, preliminary analyses are presented, including a reliability analyses of the instruments and descriptive statistics of the variables studied. Finally, the results of analyses related to each research hypothesis are discussed.

Description of the Sample

Participants were recruited from the Student Veterans of America (SVA) list-serves at over 1000 colleges and universities across the United States. The researcher sent an email to the president or faculty liaison for each local chapter of SVA to provide a brief description of the study and request for them to forward the recruitment letter for the survey to their chapter list-serves. A total of 156 participants chose to take the survey. Out of this 156, 29 (18.59%) did not complete the survey, leaving 127 participants for the final analysis.

Demographic data were collected, including age, gender, ethnicity, year in program, type of college they are attending, and marital status (see Appendix B for the full demographic questionnaire). Demographics were calculated for the total sample, and the

results are summarized in Tables 2 and 3. The average age of participants was 30.9 (SD = 6.34), with ages ranging from 23 to 51. The majority of participants were male (n=111; 87.4%) and identified as Caucasian (n = 72, 56.7%). Other ethnicities represented in the sample included African-American (n = 34, 26.8%), Hispanic/ Latino/a (n = 9, 7.1%), and multiracial (n = 12, 9.4%). There were no participants who identified as Asian or as reporting an "Other" ethnic background. One hundred two participants (80.0%) were enrolled in 4-year colleges/universities, 25 (20.0%) were enrolled in 2-year colleges. In terms of relationship demographics, 58 participants (45.7%) indicated that they were married, 18 (14.2 %) were divorced, and 51 (40.2%) indicated that they were single.

Table 2

Demographic Description of the Full Sample

Variable		Mean	SD	Range	N	%
Age		30.9291	6.34	28	127	100
Gender	Male				111	87.4
	Female				16	12.6
	Did not Indicate				0	
Marital status	Single				51	40.2
	Married				58	45.7
	Divorced				18	14.2
Race	African American				34	26.8
	Caucasian				72	56.7
	Hispanic or Latino				9	7.1
	Multiracial				12	9.4
Year In School	Freshman				12	9.4
	Sophomore				35	27.6
	Junior				55	43.3
	Senior				9	7.1
	Graduate Student				16	12.6
Type of College	2-year				25	20.0
	4-year college/university				102	80.0

Table 3

Military Demographics of Sample

Variable			N	%
Branch of Service	Army		68	53.5
	Air Force		16	12.6
	Marines		39	30.7
	Navy		4	3.1
Time Since Active Duty	6 Months to 1 Year		12	9.4
	1-2 Years		32	25.2
	2-4 Years		45	35.4
	More than 4 Years		38	29.9
Time since last Deployment	1-2 Years		35	27.6
	2-4 Years		46	36.2
	More than 4 Years		46	36.2
Number of Deployments	1		54	42
	2		43	33.9
	3		9	7.1
	4 or more		13	10.2
	Did Not Answer		8	6.30
Theater of Operation	Iraq		16	12.6
	Afghanistan		73	57.5
	Both		30	23.6
	Did not Answer		8	6.30
Had or Having Psychological treatment	Yes		30	23.6
	No		93	73.2
	Did not Answer		4	3.15

The majority of the participants had served either in the Army (*n=68, 53.5%*) or

the Marines (*n=39, 30.7%*). For most participants (*n=45, 35.4%*) it had been two to four

years since they had been on active duty, and either 2-4 years or more than four years

since their last deployment (both cases *n=46, 36.2%*). The majority of the participants

indicated that they had just one deployment (*n=54, 42.5%*), and 43 (33.9%) indicated

they had two deployments. Most of the participants served in Afghanistan (*n=73,*

57.5%), followed by those who served in both Afghanistan and Iraq (*n=30*, 23.6%), and

then those who served only in Iraq (*n=16*, 12.6%).

Descriptive Statistics of Instrumentation

The data from the surveys were downloaded in a Statistical Package for the Social

Sciences (SPSS) file. The data were analyzed for those who did not complete the survey,

resulting in 29 cases being eliminated. Those questions on the various instruments that

needed reverse scoring were addressed, and then missing variables for the instruments were

replaced using the serial mean function.

Table 4

Instrumentation Score Ranges, Means, and Standard Deviations

Instrument	Possible Range	Sample Range	Sample Mean	Sample SD
Combat Exposure Scale	0-41	7.0-28.00	13.71	6.39
Aftermath of Battle Scale	15-60	15-46	22.99	7.04
DASS-21	0-126	00-80	24.73	25.95
PCL-M	17-85	17-69	33.35	16.43
Trust Scale	0-200	74-177	136.37	26.26
Empathy Scale	25-125	44-108	80.94	14.52
Post-deployment Support Scale	15-75	35-76	55.93	11.42
Connecting Classroom Scale	23-238	54-115	80.78	15.38
Alienation Scale	4-20	6-19	13.37	3.43
CASES	0-84	40-84	63.76	11.43

Descriptive statistics were used to examine the variance that existed in participant

responses. Ranges, means and standard deviations were calculated for all scales administered

in the study (See Table 4). Means and standard deviations obtained in this study were compared to available prior norms and the results were found to be within a comparable range.

Reliability of Instrumentation

A reliability analysis was conducted on all the instruments. Results of those analysis are displayed in table 5.

Table 5

Instrument Scale Reliability

Instrument	# of Items	α of Previous Sample	α of Current Sample
Combat Exposure Scale	7	.85-.87	.875
Aftermath of Battle Scale	15	.88-.91	.912
DASS-21	21	.925	.971
Depression	7	.90	.953
Anxiety	7	.83	.942
Stress	7	.86	.910
PCL-M	17	.94-.97	.971
Trust Scale	40	.93	.977
Partner	20	.92	.970
General	20	.91	.949
Empathy Scale	25	.92	.930
Sensitivity		.92	.925
Concern		.85	.859
Connecting Classroom Scale	23	.93	.949
Alienation Scale	4	.67	.788
CASES	21	.82-.88	.951

Correlations of Instruments

Pearson correlations were conducted on all instruments. The results are displayed in Table 6. Most of the instruments showed correlations that were moderate or large in effect size, with significant correlations ranging from .369 to .888.

Table 6

Correlation of Instrumentation Table

		CCS	AS	CES	ABS	PCL-M	CASES	E-Scale	DASS-21	TI
CCS	Pearson Corr	1								
	Sig (2-tailed)									
AS	Pearson Corr	.745**	1							
	Sig (2-tailed)	.000								
CES	Pearson Corr	-.441*	-.553**	1						
	Sig (2-tailed)	.012	.001							
ABS	Pearson Corr	-.669**	-.645**	.7127**	1					
	Sig (2-tailed)	.000	.000	.000						
PCL-M	Pearson Corr	-.564**	-.451**	.619**	.701**	1				
	Sig (2-tailed)	.001	.008	.000	.000					
CASES	Pearson Corr	.285	.085	.029	-.197	-.340	1			
	Sig (2-tailed)	.114	.638	.875	.279	.057				
E-SCALE	Pearson Corr	.492**	.436*	-.1275	-.369*	-.380*	.509**	1		
	Sig (2-tailed)	.004	.013	.070	.038	.0127	.003			
DASS-21	Pearson Corr	-.512**	-.455**	.663**	.640**	.888**	-.236	-.295	1	
	Sig (2-tailed)	.003	.007	.000	.000	.000	.194	.100		
TI	Pearson Corr	.545**	.486**	-.358*	-.478**	.638**	.570**	.488**	-.456**	1
	Sig (2-tailed)	.001	.005	.044	.005	.000	.001	.005	.009	
PDSS	Pearson Corr	.474**	.445*	-.310	-.481**	-.564**	.451**	.526**	-.377*	.852**
	Sig (2-tailed)	.006	.011	.084	.005	.001	.010	.002	.033	.000

 * Significant at the .05 level
** Significant at the .000 level

Hypothesis Testing

The current study was designed to assess how exposure to combat and its aftermath affects psychological functioning; how both combat exposure and the resulting psychological distress affects student veteran's ability to trust and to empathize thus affecting their relationships at home and at school; and how all of these factors affect the veteran's transition to college. The results of the statistical analyses used to examine these hypotheses are presented below.

Research question 1 / hypothesis 1a. Hypothesis 1a stated that the levels of post-traumatic Stress Disorder (PTSD), as measured by the PTSD Checklist-Military version (PCL-M), and levels of anxiety, depression, and stress, as measured by the Depression, Anxiety, and Stress Scale (DASS-21) will mirror the levels found in the general population of active duty military personnel. The PCL-M sets a cutoff score of 50 for a diagnosis of PTSD. Using this criterion, 26 participants (20.5%) could be diagnosed with PTSD. This figure is much lower than the 50 percent diagnosed with moderate to severe PTSD in the Rudd et al. (2011) study of student veterans, and is in the 17-30 percent range found in studies working with the active duty military (Church, 2009; Jaroncyk, 2010; Kaplan, 2008). This finding supports the hypothesis that PTSD levels of participants in this study mirror those of the active duty military.

Scores between 14 and 20 on the DASS-21 Depression Scale indicate moderate depression, 21 to 27 represents severe depression, and 28 and above represents extremely severe depression. Of the 127 participants, 32 participants (25.19%) had scores between 14 and 20 indicating moderate depression, 12 participants (9.45%) had scores between 21

and 27 indicating severe depression, and 8 participants (6.30%) had scores of 28 or higher indicating extremely severe depression. This equates to 20 participants (15.75%) indicating symptoms of severe to extremely severe depression. This score is less than the 25 percent of participants in the Rudd et al. (2011) study that indicated signs of severe depression., and roughly equal to the 17% of active duty military personnel diagnosed with depression (Blakeley & Jansen, 2013). This finding supports the hypothesis that student veterans' depression levels mirror those of the active duty military.

On the Anxiety Scale, 16 participants (12.60%) had scores between 10 and 14 which indicates moderate anxiety, 8 participants (6.30%) had scores between 15 and 19 indicating severe anxiety, and 12 participants (9.45%) had scores over 20 indicating extremely severe anxiety. This equates to 20 participants (15.75%) indicating severe or extremely severe anxiety symptoms, which is lower than the 33% found to demonstrate severe anxiety symptoms in the Rudd et al. (2011) study. This number is in line with the 10 to 13% estimate of active duty personnel suffering with anxiety issues (Blakeley & Jansen, 2013). This supports the hypothesis that anxiety levels of participants in this study mirror those of the active duty military.

On the Stress Scale, 12 participants (9.45%) had scores in the range of 19 to 25 which indicates moderate stress, and 12 participants (9.45%) had scores between 25 and 33 indicating severe stress issues. There is no comparative data in the Rand et al. (2011) study or in literature published by the military to which a comparison of stress levels can be made.

Research question 2 /hypothesis 2a. Hypothesis 2a states that the newly

proposed CoSTS model will demonstrate good fit indexes, as measured by the LISREL

program, for military combat veteran students. The model fit indexes in the aggregate

suggest a poor fit for the model to the data (See Table 7). The $\chi 2$ for the model with 74

degrees of freedom is 336.986 ($\rho = 0.0$), which is significant, indicating that the CoSTS

model is a not a good fit for the data collected for this study (Kline, 2005). The root

mean square error of approximation (RMSEA) is 0.770, which is well above the accepted

cutoff value of .1, also indicating a poor fit. In fact, the entire 90 percent confidence

interval for RMSEA (0.687-.8.54) is above the accepted upper limit cutoff level.

Likewise, the Comparative Fit Index (CFI) is 0.0, which is well below the suggested 0.95

indicator for a good fit (Kline, 2005). The standardized root mean square residue

(SRMR) is 0.290, which is greater than the suggested .05 cutoff for a good model fit,

indicates a very poor fit. The GFI index of .180 also indicates a poor fit of the data to the

model (Kline, 2005). Altogether these indexes indicate that the CoSTS is a very poor fit

for the data, thus not supporting the hypothesis. Therefore the path estimates are not

reliable and will not be used for further analysis. (See Appendix B for both

unstandardized and standardized LISREL representations of the CoSTS model output

with path estimates.)

Table 7

Goodness of Fit Statistics for the CoSTS Model

Index Name	Value
Degrees of Freedom	74
Maximum Likelihood Ratio Chi-Square	336.986 $p=0.000$
Root Mean Square Error of Approximation (RMSEA)	0.770
90 Percent Confidence Interval for RMSEA	0.687-0.854
Normed Fit Index (NFI)	-1.115
Comparative Fit Index (.CFI)	0.0
Root mean Square Residual (RMR)	2924.918
Standardized RMR	0.290
Goodness of Fit Index (GFI)	0.180

Research question 3/hypothesis 3a. This hypothesis states that exposure to

combat and its aftermath, as measured by the Combat Exposure Scale (CES) and the

Aftermath of Battle Scale (ABS) would correlate with higher levels of PTSD, anxiety,

depression, and stress as measured by the PCL-M and the DASS-21. Due to the low

number of participants (had 127, needed 330) and issues with high collinearity, the

CoSTS model did not fit the data, rendering the path estimates unusable in analyzing the

hypotheses in Research Question 3. Understanding this is a limitation of the study, the

researcher chose to use a series of stepwise regression analyses to test the remaining

hypotheses. A regression analysis utilizing the Combat Exposure scale (CES) and the

Aftermath of Battle (ABS) scale as predictors for the PCL-M and the DASS-21 scores

was the first to be executed (See Figure 11). In the PCL-M regression the CES and the

ABS significantly predicted PCL-M scores, $F (2,124) = 76.164$, $p = .000$. The R-squared

coefficient indicates that the CES and the ABS account for 55.1 percent of the variance in

PCL-M scores (See Table 8). The standardized Beta scores for the CES (.356) and the

ABS (.406) indicate that the ABS has slightly more influence on PCL-M scores than does

the CES. The positive coefficients indicate that as CES and ABS scores increase, so do

PCL-M scores.
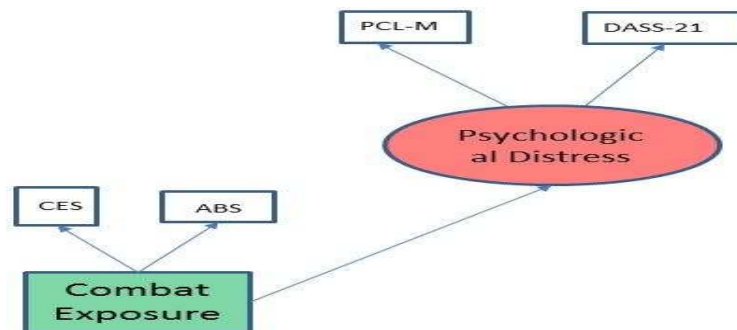
Figure 11. Loadings for Hypothesis 3a

Table 8

Regression Coefficients for PCL-M

Model	df	*F*	SIG	*R²*	Unstandardized Coefficients		*Standardized Coefficients*	*t*	Sig
					B	*SE*			
Aftermath of Battle	2	76.164	.000	.551	1.195	.398	.406	3.005	.003
CES	124				.666	.253	.356	2.634	.010

A second regression was performed using the ABS and CES as predictor variables

and the DASS-21 as the dependent variable. This regression also was found to be

significant [*F* (2,124) = 116.088, *p* = .000]. The *R*-squared indicates that the CES and the

ABS are responsible for 65.2% of the variance in DASS-21 scores. The standardized

Betas indicated that the ABS (.571) had over twice the effect on DASS-21 scores as the CES (.255) did (See Table 9). The positive Beta coefficients indicated that there was a positive correlation among CES, ABS, and DASS-21 scores. These two results support the hypothesis that exposure to combat and its aftermath will correlate with higher levels of PTSD, anxiety, depression, and stress.

Table 9

Regression Table for DASS-21

| Model | df | F | SIG | R^2 | Unstandardized Coefficients | | Standardized Coefficients | | |
					B	SE	B	t	Sig
Aftermath of Battle	2	116.09	.000	.652	1.264	.268	.571	4.797	.000
CES	124				.364	.170	.255	2.138	.035

Research question 3/hypothesis 3b. This hypothesis stated that greater exposure to combat and its aftermath would correlate with lower scores on trust, as measured by the Trust Inventory (TI). A regression analysis was executed, using the CES and ABS as predictor variables and the TI as the dependent variable (See figure 12). The results of the regression indicated that the CES was a significant predictor of TI scores, $F(1, 125) = 103.985$, $p = .000$. The R-squared indicates that the CES was responsible for 45.4 % of the variance in TI scores. The Beta score (-2.306) is negative, indicating an inverse relationship between the two variables. The standardized Beta of -.674 indicates that one standard unit of change upward in CES scores results in a decrease of .674 standard units

on the TI scale (See Table 10). This supports the hypothesis that greater exposure to

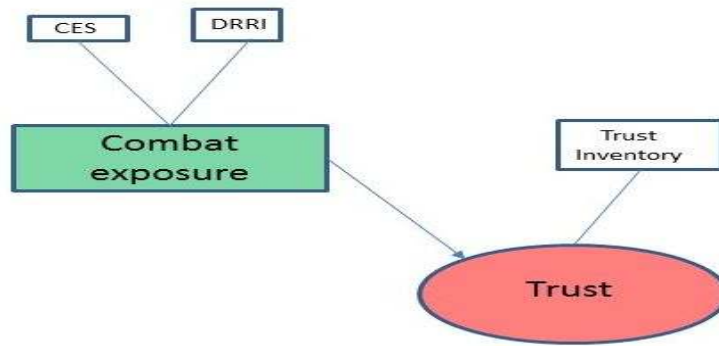combat and its aftermath will correlate with lower scores on trust.

Figure 12. Loadings for Hypothesis 3b

Table 10

Regression Table for Trust Inventory

Model	df	F	SIG	R^2	Unstandardized Coefficients		Standardized Coefficients	t	Sig
CES	1 125	103.985	.000	.454	-2.306	.226	-.674	-10.19	.000

Research question 3/hypothesis 3c. Hypothesis 3c proposed that greater

exposure to combat and its aftermath, as measured by the CES and ABS, will correlate

with lower empathy scores as measured on the E-Scale. A regression equation was

calculated using the ABS and CES as predictor variables and the E-scale scores as the

dependent variable (See Figure 13)(See Table 11). The results of the regression indicate

that, similar to the TI scale regression, only combat exposure was found to have a

significant impact on E-scale scores, F (1,125) = 90.182, p = .000. The R-squared in this

regression indicates that combat exposure accounts for 41.9% of the variance in E-scale scores. The standardized Beta of -.647 indicates that with every one standard unit of change upward in CES scores, the result is a decrease of .647 standard units on the E-scale. This supports the hypothesis that greater exposure to combat and its aftermath, as measured by the CES and ABS, correlates with lower E-Scale scores.
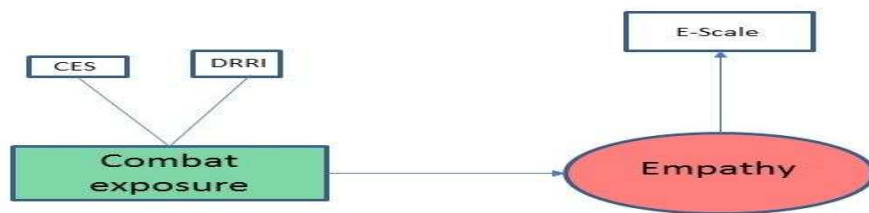

Figure 13. Loadings for Hypothesis 3c

Table 11

Regression Table for Empathy Scale

Model	df	*F*	SIG	R^2	Unstandardized Coefficients		Standardized Coefficients		
					B	*SE*	*B*	*t*	Sig
CES	1 125	90.182	.000	.448	-1.253	.132	-.647	- 9.496	.000

Research question 3/hypothesis 3d. This hypothesis asserted that higher scores on the DASS-21 and PCL-M would correlate with lower TI scores, E-Scale scores, social support as measured by the Post-Deployment Support Scale (PDSS), and lower feelings of connection/alienation as measured by the 4 question Alienation Scale and the Connection Classroom Survey (See Figure 14). The first regression equation placed the

DASS-21 and the PCL-M scores as the predictor variables, and TI scores as the dependent variable. The results indicated that only the PCL-M had a significant effect on TI scores, $F(1,125) = 172.924$, $p = .000$. The R-squared indicated that the PCL-M scores accounted for 58.0% of the variance in TI scores. The standardized Beta (-.762) indicates a reciprocal relationship where one standard unit of change increase in PCL-M scores results in a .762 standard unit of decrease in TI scores (See Table 12). This supports the hypothesis that higher psychological distress scores, as measured by the DASS-21 and the PCL-M, would result in lower TI scores.
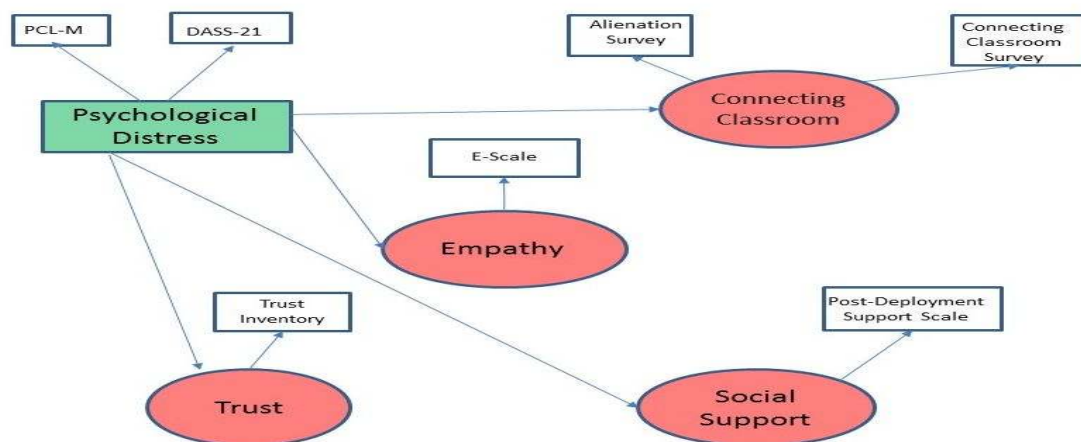

Figure 14. Loadings for Hypothesis 3d

Table 12

Regression Table for Trust Inventory2

| Model | df | F | SIG | R² | Unstandardized Coefficients | | Standardized Coefficients | | |
					B	SE	B	t	Sig
PCL-M	1 125	101.51	.000	.448	-.440	0.44	-.669	10.075	.000

The next regression equation examined the relationship between the DASS-21, the PCL-M, and E-scale scores. The results were very similar to the TI scale regression, with only the PCL-M having any effect on the E-scale scores, $F(1,125) = 79.60$, $p = .000$. The *R*-squared indicated that the PCL-M was responsible for 38.9% of the variance in E-scale scores. The standardized Beta of -.624 indicates that for every one standard unit increase in the PCL-M there will be a .624 standard unit decrease on E-scale scores (See Table 13). This supports the hypothesis that higher psychological distress levels will be related to lower empathy levels.

Table 13

Regression Table for Empathy Scale2

| Model | df | F | SIG | R² | Unstandardized Coefficients | | Standardized Coefficients | | |
					B	SE	B	t	Sig
PCL-M	1 125	79.60	.000	.389	-.646	.072	-.624	-8.922	.000

The relationship between the DASS-21, the PCL-M, and Post-Deployment

Support Scale (PDSS) scores was the subject of the next regression equation. Once again

the results indicated that only the PCL-M scores had a significant effect on the PDSS

scores, $F(1,125) = 101.510$, $p = .000$. The R-squared for the regression indicated that the

PCL-M was responsible for 44.8% of the variance in PDSS scores. The standardized Beta

score of -.669 indicates that one standard unit increase in PCL-M scores results in a .669

standard unit decrease in PDSS scores (See Table 14). This supports the hypothesis that

higher psychological distress scores will result in lower social support scores.

Table 14

Regression Table for Post-Deployment Social Support Scale

Model	df	*F*	SIG	R^2	Unstandardized Coefficients		*Standardized Coefficients*		
					B	*SE*	*B*	*t*	Sig
PCL-M	1 125	101.51	.000	.448	-.440	0.44	-.669	-10.08	.000

The next regression for this hypothesis examined the relationship between the

DASS-21, the PCL-M, and the Alienation Scale. The results for this regression were

different, with only the DASS-21 having a significant effect on the Alienation Scale,

$F(1,125) = 73.112$, $p = .000$. The R-squared indicated that the DASS-21 accounted for

36.9% of the variance in Alienation Scale scores. The negative standardized Beta

indicated that one standard unit increase in DASS-21 scores result in a decrease of .607

of a standard unit in Alienation Scale scores (See Table 15). This supports the hypothesis

that higher psychological distress scores will result in lower Alienation scores which, due to the scale being reversed scored, indicate more alienation.

Table 15

Regression Table for Alienation Scale

Model	df	*F*	SIG	*R²*	Unstandardized Coefficients		*Standardized Coefficients*		
					B	*SE*	*B*	*t*	Sig
DASS-21	1 125	73.112	.000	.369	-.228	.027	-.607	-8.55	.000

The final regression for this hypothesis examined the relationship between the PCL-M scores, the DASS-21 scores, and the Connecting Classroom scale scores. The results indicated that both the PCL-M and the DASS-21 scores had a significant impact on the variance of the Connecting Classroom scores, $F (1, 125) = 68.337, p = .000$. The R-squared coefficient indicated that the PCL-M and the DASS-21 account for 52.4% of the variance in the Connecting Classroom scores. The standardized Beta score for the DASS-21 (-1.313) is over twice that of the PCL-M score (-.631), indicating that the DASS-21 had over twice the effect on Connecting Classroom scale scores than the PCL-M did (See Table 16). The negative coefficient indicates that as PCL-M and DASS-21 scores go up, Connecting Classroom scale scores go down. This supports the hypothesis that higher psychological distress scores will result in lower Connecting Classroom scores.

Table 16

Regression Table for the Connecting Classroom Scale

| Model | df | *F* | SIG | R^2 | Unstandardized Coefficients | | *Standardized Coefficients* | | |
					B	*SE*	*B*	*t*	Sig
DASS-21	2	68.337	.000	.524	-1.505	.269	-1.313	-5.60	.000
PCL-M	124				-.552	.205	-.631	-2.69	.008

Research question 3/hypothesis 3e. This hypothesis stated that lower scores on

the Trust Inventory and the E-Scale will correlate with lower Post-Deployment Support

Scale scores and lower connecting classroom/alienation scores. In addition, combat

exposure and psychological distress will effect social support and connecting

classroom/alienation levels through their effect on trust and empathy levels (See Figure

15). A regression analysis was conducted utilizing the CES, ABS, PCL-M, DASS-21, TI,

and E-scale as the predictor variables and the Post-Deployment Support Scale as the

dependent variable. This regression resulted in a 2 factor equation in which trust and

empathy accounted for 84.4% of the variance in PDSS scores, F (2, 124) = 335.464, p =

.000. The standardized Betas indicated that the TI (.803) had over five times the effect on

PDSS as the E-Scale (.149) (See Table 17). The positive coefficients indicate that as TI

and E-Scale scores decrease, PDSS scores decrease. This supports the hypothesis that

lower trust and empathy levels will correlate with lower social support levels. The

regression also shows that the trust and empathy variables, when combined with the

combat exposure and psychological distress variables, were the only significant

predictors of social support levels supports, supporting the hypotheses that combat exposure and psychological distress work through empathy and trust to affect a person's social support structure.
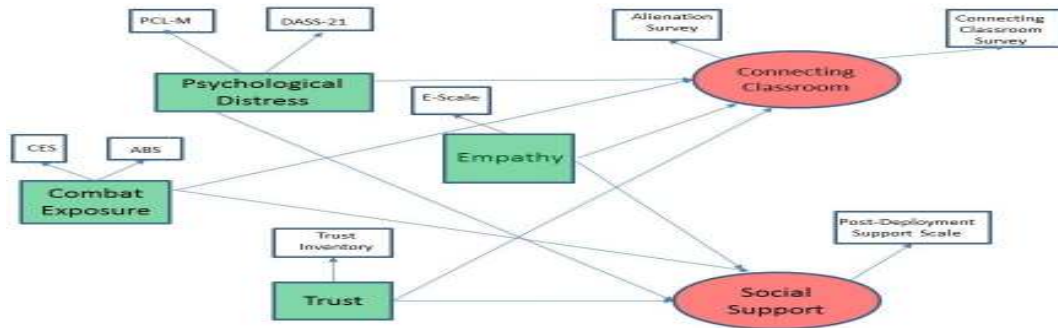

Figure 15. Loadings for Hypothesis 3e

Table 17

Regression Table for the Post-Deployment Social Support Scale2

Model	df	*F*	SIG	*R²*	Unstandardized Coefficients		*Standardized Coefficients*		
					B	*SE*	*B*	*t*	Sig
Trust	2	335.464	.000	.844	.289	.019	.803	15.35	.000
Empathy	124				.095	.033	.149	2.85	.005

The next regression tested the relationship between the same predictor variables plus the PDSS on the Alienation Scale scores. The results indicated a three factor solution with the CES, E-Scale, and ABS scores accounting for 60.7 percent of the variance in AI scores, $F\,(3, 123) = 63.201$, $p = .000$ (See Table 18). All three variables had approximately the same effect on AI scores, with the negative coefficients on the Beta

scores indicating that as combat exposure and aftermath of battle exposure increases, feelings of alienation increase. The positive coefficient on the E-Scale scores indicate that as empathy levels increase, feelings of alienation decrease. While these findings are consistent with the previous regressions, the fact that trust had no effect on AI scores, and that the CES and ABS scores did have an effect, does not support the hypothesis that combat exposure and psychological distress would have an effect on alienation scores through their effect on empathy and trust.

Table 18

Regression Table for Alienation Scale2

Model	df	*F*	SIG	R^2	Unstandardized Coefficients		Standardized Coefficients		
					B	*SE*	*B*	*t*	Sig
CES	3	63.201	.000	.607	-.153	.072	-.285	-2.13	.035
Empathy	123				.077	.021	.276	3.71	.000
ABS					-.257	.108	-.304	-2.38	.019

The last regression for this hypothesis tested the effects of combat exposure, psychological distress, trust, empathy, and social support on the Connecting Classroom scores. The results of this regression yielded a 3 factor solution very similar to the previous regression, showing that the DASS-21, E-Scale, and ABS scores accounted for 57.8% of the variance in Connecting Classroom Scale scores, $f(3, 124) = 56.117$, $p = .000$ (See Table 19). The standardized Beta scores indicate that the three factors had approximately the same amount of influence on connecting classroom levels. Again, the

lack of influence by the trust variable and the indicated influence of the DASS-21 and the

CES scores does not support the hypothesis that combat exposure and psychological

distress would work through trust and empathy to effect the Connecting Classroom

scores.

Table 19

Regression for Connecting Classroom Scale2

Model	df	*F*	SIG	*R²*	Unstandardized Coefficients		Standardized Coefficients		
					B	*SE*	*B*	*t*	Sig
DASS21	3	56.117	.000	.578	-.201	.058	-.350	-3.48	.001
Empathy	123				.221	.064	.261	3.45	.001
ABS					-.637	.259	-.247	-2.46	.015

Research question 3/hypothesis 3f. This hypothesis proposed that as combat

exposure, psychological issues, and feelings of alienation increase, and trust, empathy,

social support, and feelings of being connected in the classroom decrease, college

adjustment scores, as measured by the College Adjustment Self-Efficacy Scale, would

decrease (See Figure 16). The regression equation utilized all of the CoSTS model

variables to find which variables best predicted scores on the CASES. The results of the

regression found a 4 factor model with PDSS, empathy, alienation, and combat exposure

significantly affecting the variance in CASES scores, $F_{(4,122)} = 331.706$, $p = .000$. The

model, according to the R-squared coefficient, accounted for 91.6% of the variance in

College Adjustment Self-efficacy Scale scores. Post-deployment social support had the

biggest impact, with a standardized Beta that was over five times that of the other three

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predictor variables (See Table 20). However, the standardized coefficient for the E-scale

is negative, indicating that as empathy increases, college adjustment self-efficacy

decreases, which is counter to the hypothesized relationship. Likewise, The CES

coefficient is positive, meaning that as combat exposure increases college adjustment

self-efficacy increases. While the PDSS and AS scores support the hypothesis that the

above interactions would result in lower overall college adjustment scores as measured

by the College Adjustment Self-Efficacy Scale, the E-Scale's inverse relationship and the

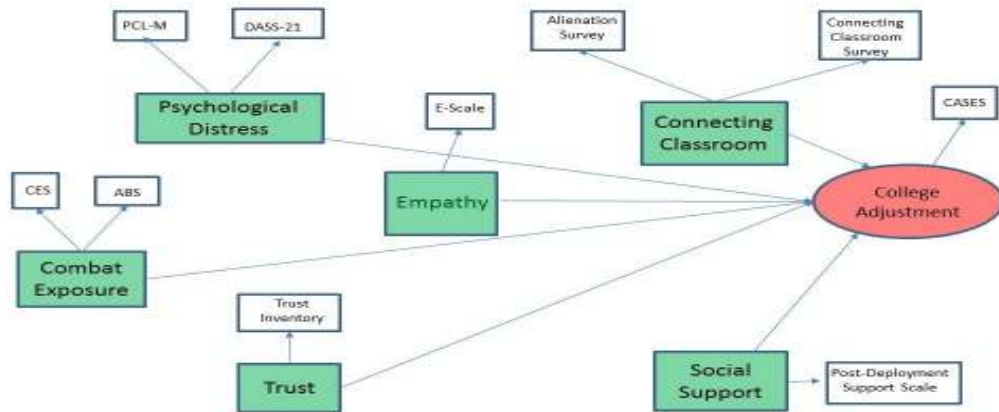CES positive relationship with the CASES does not support it.

Figure 16. Loadings for Hypothesis 3f

Table 20

Regression Table for College Self-efficacy Adjustment Scale

Model	df	*F*	SIG	R^2	Unstandardized Coefficients		*Standardized Coefficients*		
					B	*SE*	*B*	*t*	Sig
PDSS	4	331.71	.000	.916	.395	.065	1.079	25.90	.000
Empathy	122				-.041	.010	-.175	4.11	.000
Alienation					.149	.034	.177	4.32	.000
CES					.078	.019	.174	4.08	.000

Research question 4 /hypothesis 4a. . This hypothesis proposed that female

mean scores will indicate significantly better functioning than the mean scores from the

male participants. To test this hypothesis a MONOVA was conducted using gender as

the sorting variable and the rest of the instruments as dependent variables. The results

indicated that there was a significant difference in mean scores due to gender, F (15,111)

= 20.528, p = .000. The eta squared coefficient indicates that 73.5% of the variances in

the dependent variables could be explained by gender. An examination of the between

subject effects reveals a significant difference between means based on gender in all the

variables except one, the DASS Depression scale (See Table 19). The amount of variance

explained by gender ranged from 3.3% to 39.1%.

Table 21

Test of Between Subjects Effects

Dependent Variable	F	Sig	Partial eta squared
Aftermath of Battle	9.563	.002	.071
Combat Exposure	23.510	.000	.158
PCL-M	8.297	.005	.062
DASS-21 Depression	3.567	.061	.028
DASS-21 Anxiety	6.843	.010	.052
Dass-21 Stress	8.117	.005	.061
E-scale-Sensitivity	23.612	.000	.159
E-scale Concern	38.877	.000	.237
Trust Scale-General	23.810	.000	.160
Trust Scale Partner	14.799	.000	.106
PDSS-Emotional	12.352	.001	.090
PDSS-Instrumental	22.888	.000	.155
GPA	4.327	.040	.033
CASES	22.888	.000	.155
Alienation	80.200	.000	.391
Connecting Classroom	18.140	.000	.127

Table 22

Means Comparisons by Gender Table

Instrument	Male Mean	Male SD	Female Mean	Female SD	Partial eta Squared
Combat Exposure	12.27	9.24	1.00	1.79	.158
E-Scale Sensitivity	34.91	6.60	45.75	6.13	.159
E-Scale Concern	40.43	9.06	55.25	7.46	.237
Trust Scale General	61.67	16.10	81.84	9.63	.160
Trust Scale Partner	66.25	16.21	82.37	11.00	.106
PDSS Instrumental	17.23	4.12	22.25	1.98	.155
Alienation	12.24	3.97	21.75	3.95	.391
Connecting Classroom	74.74	14.81	91.25	11.92	.127
CASES	17.23	4.12	22.25	1.98	.155

For Combat Exposure gender explained 15.8 % of the variance. A look at the means shows that men had a mean of 12.27, whereas the females mean was 1.00 (See Table 20). This is likely explained by the fact that women are currently not placed in direct combat roles. Women recorded much higher empathy scale scores, which is in accordance with research that show women tend to be more empathetic than men (Skoe, 2010). The female participants also scored much higher on TI scores, both general and partner trust. The Alienation Scale score had the largest effect size, showing that gender accounted for 39.1 % of the variance on feelings of alienation at school, with females indicating they were feeling almost half as alienated at school as their male counterparts. These findings support the hypothesis that female mean scores will indicate significantly better functioning than the mean scores of the male participants.

Summary

This chapter displayed the results obtained by the survey. The chapter described the demographics of the sample, the reliability of the instruments, and the descriptive statistics of the instrumentation. The 127 participants in this study were found to have lower PTSD, depression, and anxiety levels than a previous study of student veterans found (Rudd et al., 2011), and were consistent with levels found in the active duty military.

The CoSTS model fit indexes indicated that the model was not a good fit for the data in this study. Subsequent stepwise regressions results support the underlying foundations of the CoSTS model. Combat exposure was found to have a significant

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correlation with psychological distress, and an inverse correlation with trust and empathy. Psychological distress was inversely correlated with trust, empathy, social support, feelings of alienation, and feeling connected in the classroom. A regression utilizing the combat exposure variables, the psychological distress variables, the trust variable, and the empathy variable to predict social support levels indicated that trust and empathy were directly correlated with social support, and that the combat exposure variables and psychological distress variables were not significant predictors of social support when paired with the trust and empathy variables. This supports the hypothesis that combat exposure and psychological distress work through trust and empathy to effect social support levels. That hypothesis was not supported with the connecting classroom/alienation variables where combat exposure and psychological distress did have a direct influence on the scores, and the trust variable had no influence. Social support was found to be the main predictor of college adjustment self-efficacy levels.

Gender also was found to make a significant difference in how participants responded to the survey, with females having significantly different mean scores on all the instruments except the DASS Depression Scale. The females had significantly lower combat exposure levels, higher empathy levels, higher trust and social support levels, less feelings of alienation, more feelings of being connected in the classroom, and more feelings of college adjustment self-efficacy. The next chapter will discuss the meaning of the results, possible future studies, and limitations to the current study.

CHAPTER V

DISCUSSION

This section will reintroduce the CoSTS model and discuss the meaning of the results presented in the previous chapter. First the results related to each research question will be discussed. This will be followed by sections discussing the implications of the study for counseling practice, the limitations of the study, directions for future research, and a brief summary.

Discussion of Results

Preliminary analysis. The preliminary analysis indicted a fairly diverse sample of college student veterans. The percentage of females for this study (12.6%) is lower than the percentage of females in the active military, which is about 17% (Hopkins-Chadwick, 2006) , and much lower than the percentage of females in college, which isover 50%. The small number of females willing to take the survey may represent a selection bias. An examination of the split means shows that the females who participated in this study were functioning significantly better than the males on almost every instrument, with the exception of depression (See Tables 21 and 22). It is possible that females who may be struggling with more problems chose not to take the survey. As far as ethnicity is concerned, the African Americans participants (26.8%) were represented at a higher rate than in the active duty military (16.5%) (Department of Defense, 2014) or the general population (12.85%) (Index Mundi, 2015). This student veteran sample also

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was distinguished from the traditional student population by the fact that over 45 percent of participants were married, with an average age of almost 31.

The instrumentation overall showed good reliability, with Cronbach's Alphas ranging from .788 to .977. While these scores are higher than some scores previously posted, they are not significantly inconsistent with prior research. The means and standard deviations were also in line with previously published results.

Research question 1. Research Question 1 examined the rate of psychological distress in the sample and compared it to the rate found in a previous study of student veterans (Rudd et al., 2011) and to rates reported for the active duty military. The comparison with the Rudd study indicated that the levels of PTSD, depression, and anxiety reported by participants of the present study were significantly lower than the levels reported in the Rudd study. These results are most likely due to a decrease in the fighting intensity from what it was in the earlier stages of the war, especially around the time of the surge in 2006-2007. The participants in the Rudd et al. (2011) study would have been those who had participated in the surge and the early parts of the Iraq war when fighting was at its most intense. From that group one would expect higher psychological distress levels, especially PTSD. This is consistent with previous findings indicating the connection between combat exposure and psychological distress (Hoge et al., 2004; Miller et al., 2008).

There was no major difference found in the levels of psychological distress for this student veteran sample and the active duty military (Church, 2009; Jaroncyk, 2010;

Kaplan, 2008). This is different than in the Rudd et al. (2011) study that found

significantly higher levels of PTSD, depression, anxiety, suicidal ideation, and suicide

attempts in the student veteran population than in the active duty military population, a

finding for which the authors had no explanation for. The findings in this study that there

was no significant difference seems more intuitively accurate.

Research question 2. Research Question 2 examined the overall fit of the CoSTS

model to the data. All the fit indexes indicated that the proposed CoSTS model was a

poor fit for the data. One issue that may have affected the outcome was the low number

of participants. It was originally estimated that the CoSTS model would need 330

participants, but only 127 participants completed the survey. The model was therefore

significantly underpowered. A low number of participants can make the model estimates

uncertain (Kline, 2005). Another issue the LISREL program commented on was the high

collinearity among many of the instruments, such as the $r = .888$ correlation between the

PCL-M and the DASS-21. High correlations in this range also can make the model

estimates uncertain (Kline, 2005) In addition, very high correlation rates raise the

question of are the instruments measuring different variables or the same variable,

thereby being redundant.

The CoSTS model factors were chosen based on current research and the author's

clinical experience working with military clients. Although the model was not found to

be a good fit for the data, the subsequent stepwise regressions results (See Research

Question 3 discussion below) support the hypothesized connections on which the CoSTS

model was based. The analysis of the individual path regressions indicated that the model seemed to be following the hypothesized connections until coming to the Connecting Classroom/Alienation block, where the results from the regression analyses started to become contradictory and resulting in paradoxical outcomes. Poor instrumentation may be a culprit here; neither the Alienation Scale (Elliot et al., 2012) nor the Connecting Classroom Survey had any convergent or discriminant validity checks run on them. Missing underlying variables to the model also could be a factor. Further studies will be needed to investigate the underlying issues affecting the model.

Research question 3. Research Question 3 examined how the different variables in the CoSTS model affected each other. The findings that combat exposure and exposure to a battle's aftermath highly correlated with an increase in psychological symptoms is consistent with previous literature (Armistead-Jehle, Johnston, Wade, & Ecklund, 2011; Orcutt, Erickson, & Wolfe,2004; Sharkansky et al, 2000). In this study, combat exposure and exposure to its aftermath were responsible for 55.1% of the variance in PTSD symptoms and 65.2% of the variance in depression, anxiety, and stress symptoms. Combat exposure also had a significant effect on trust and empathy levels, accounting for over 45% of the variance in trust and almost 42% of the variance in empathy. This finding illustrates how trust and empathy levels can be negatively impacted without having PTSD. These findings have not been previously noted in the literature.

The Aftermath of Battle Beta coefficients, when compared to the Beta coefficients of the Combat Exposure Scale, were very similar for the PTSD regression,

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but the Aftermath of Battle scores were twice as influential on DASS-21 scores than the CES scores were. One possible explanation for the larger influence of ABS scores on psychological distress variables is that all soldiers are exposed to the aftermath of battle, but usually only direct combat troops engage in battle on a regular bases, resulting in a lot more participants experiencing the aftermath of battle than the battle itself. Although there are numerous studies linking combat exposure and psychological distress (e.g. Armistead-Jehle, et al.,, 2010; Orcutt et al, 2004; Sharkansky et al, 2000), the author of this study could not find any previous research studies that examined the relationship between direct combat exposure, exposure to the aftermath of combat, and the differing effects these may have on psychological distress. Future studies may be warranted to explore this phenomena.

Psychological distress, in particular PTSD symptoms, had a significant negative impact on trust, empathy, and social support scores, accounting for almost 45 percent of the variance in trust and social support scores, and almost 39 percent of the variance on empathy scores. The negative effect of PTSD on relationships has been documented (Galovski & Lyons, 2004; McFarlane & Bookless, 2001), but the negative effect of PTSD on the ability to trust and to empathies are new findings from this study.

The psychological distress variables also had significantly negative effects on both Alienation Scale scores and the Connecting Classroom Survey scores, accounting for over 50 percent of the variance in Connecting Classroom scores and almost 37 percent of the variance in the Alienation Scale scores. These findings again support

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previous findings on the destructive nature of psychological distress on relationships (Guay et al., 2006; McFarlane & Bookless, 2001; Monson et al., 2009).

When the psychological variables were regressed with the combat exposure variables onto the trust and empathy variables, it was combat exposure and PTSD symptoms that had the greatest significant effect on these variables. Combat exposure had the greatest effect on both variables, but was especially strong on the empathy variable, contributing twice as much to the changes in E-Scale score variance as the PCL-M scores. This finding illustrates the powerfully destructive force combat exposure can exert on an individual.

When the combat exposure variables, the psychological distress variables, and the trust and empathy variables were regressed onto the social support variable, it was only the trust and empathy levels that predicted social support levels. In this case the trust variable had over five times the amount of influence on social support levels as compared to the empathy variable's influence. While this results supports previous research that found empathy is a necessary component of interpersonal relationships (Keefe, 1976), and that trust enables cooperative behavior and allows relationships to build (Larzelere & Huston, 1980; Lewis & Weigert, 1985), this is the first study to show how combat exposure and psychological distress work indirectly through deteriorating trust and empathy levels to affect relationships and social support levels. The results also emphasize the importance of trust in forming and keeping relationships. This finding is in accord with the CoSTS model's hypothesized variable connections.

The regressions of the combat exposure, psychological distress, trust, empathy, and social support variables onto the connecting classroom/alienation variables did not support the findings that combat exposure and psychological distress would work through trust and empathy to effect the connecting classroom/alienation scores. Although the empathy variable did have an effect on the relationships in the classroom, trust had no effect at all. While these results agree with previous research on how psychological distress effects relationships (Guay et al., 2006; McFarlane & Bookless, 2001; Monson et al., 2009), it does not agree with previous findings of the importance of trust in building relationships (Larzelere & Huston, 1980; Lewis & Weigert, 1985). One possible explanation is the general lack of trust veterans have for non-veterans (Shay, 2009); if the student veterans do not trust the other students even before they know them they would not be expecting to have a relationship with them, whereas they are expected to have a relationship with friends and family. In the latter case the lack of trust becomes much more problematic.

The last regression for Research Question 3 utilized all the variables of the CoSTS model to ascertain which variables had the most influence on the outcome variable of college adjustment self-efficacy. While Post-Deployment Support Scale scores had the largest influence on the CASES scores, a direct effect predicted by the CoSTS model, the Connecting Classroom Survey scores had no effect. Empathy levels indicated a negative correlation with college self-efficacy levels, meaning that higher levels of empathy were related to lower levels of college adjustment self-efficacy. This

finding is counterintuitive and is not consistent with the CoSTS model's hypothesized outcomes or previous research findings that empathy is a necessary component of interpersonal relationships and was negatively associated with personal distress levels (Keefe, 1976; Skoe, 2010). The positive correlation between combat exposure and college adjustment self-efficacy is likewise problematic. As stated earlier, this may indicate either a problem with instrumentation or a missing underlying variable. A one solution factor utilizing only the PDSS may be a more valid regression for this case.

Research question 4. Research Question 4 examined whether gender affected the outcomes of the model. The females' mean scores were found to be significantly different than the male's mean scores on all the variables but depression. The largest effect size was in the alienation in the classroom variable, where gender accounted for 39.1 percent of the variances. Empathy levels and trust levels were also much higher in females than in males, possibly due to the fact that females are more likely to show affective empathy (Skoe, 2010). Also, the ability to empathies has been shown to build trust (Keefe, 1976), and the female participants in this study had significantly higher trust scores.

The females in this study had significantly lower combat exposure levels, higher empathy levels, higher trust and social support levels, less feelings of alienation, more feelings of being connected in the classroom, and more feelings of college adjustment self-efficacy. The significantly lower combat exposure scores may account for some of these findings, especially on the trust and empathy scores, which were shown in this study to be positively correlated with increased social support, which in turn was

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correlated with increased college adjustment self-efficacy. These results fit the CoSTS model hypothesized relationships. These results, however, do not match previous findings that women have been found to be more vulnerable to interpersonal stressors, resulting in higher levels of depression, anxiety, and PTSD (Vogt et al., 2005).

The only domain in which the women in this sample did not demonstrate more positive scores than their male counterparts was on the DASS Depression Scale, and even there the scores were approaching being significantly lower. One possible explanation for the lower PTSD scores would be female participants' lack of direct combat experience, and thus the lack of the required life- threatening event needed for a PTSD diagnosis. Another possibility may be found in the higher social support scores the female participants reported. Social support has been found to be a critical element in warding off stress, depression, and PTSD symptoms (Diwan;, Jonnalagadda, & Balaswamy, 2004; Needham, 2008; Rosario, Salzinger, Feldman, & Ng-Mak, 2008; Ting, Jacobson, & Sanders, 2008), and females especially have been found to use social support more to help cope with stressful situations (Dalgard et al., 2006; Wareham, Fowler, & Pike, 2007).

Implications for Counseling

The results of this study revealed that a large number of student veterans are experiencing symptoms of PTSD, depression, and anxiety. More must be done to reach out to these students to encourage them to get the help they need. Campaigns aimed at lowering the stigma associated with getting treatment for psychological issues may help

veterans feel more comfortable seeking help (Dingfelder, 2009; Pulley, 2013). One example of one such program is the Department of Defense's *Real Warrior. Real Battles. Real Strengths., w*hich utilizes veterans who have successfully undergone mental health treatment to make public service announcement where they talk about their experiences. The PSA's also contain information on a website veterans can use that has articles on psychiatric disorders and treatment options (Dingfelder, 2009).   In addition, education could be provided in seminars for student veterans on symptoms of psychological distress to help veterans recognize some of their own symptoms, and inform them about places where veterans can go to get help (Dingfelder, 2009).

In this study social support was the largest single factor contributing to college adjustment self-efficacy. An increased dialogue and outreach effort targeted to veterans may make them feel more a part of the college community and more open to talking about their experiences. Some college libraries have displayed military exhibits on holidays related to military events, both to honor those who have served and to educate those not familiar with military culture (LeMire, 2015). Since veterans often feel safer talking about war related issues with other veterans, veteran treatment groups could be started to allow veterans to help each other heal (Colombo, 2013; Pulley, 2013). Dedicated veteran centers on campus give student veterans a place to go to be with other veterans, and where services for veterans can be conveniently housed (Colombo, 2013; Pulley, 2013).

The strong correlation between trust and social support indicates the need to find ways to help student veterans get to know and interact with faculty and other students. A lack of trust keeps these student veterans from seeking help for their psychological issues (Dingfelder, 2009; Pulley, 2013), and this can impact their relationships at home and at school. Trust between student veterans and other students, and student veterans and faculty, must be built by reaching out and helping student veterans feel wanted and valued as part of the community (Colombo, 2013; LeMire, 2015, Pulley, 2013). Care must be taken by faculty not to make remarks that may make student veterans feel judged for their military service. Seminars headed by student veterans can help other students understand some of the difficulties student veterans face and help student veterans talk about their experiences with nonveterans (LeMire, 2015, Pulley, 2013).

For counselors who want to help increase a veteran's empathy, individual work to help student veterans become more familiar with what they are feeling in their bodies may be useful (Morison, Taft, & Friedman, 2009). Existing interventions include meditation (Mascaro, Rilling, Negi, & Raison, 2012), art therapy (Goodtherapy.org, 2011), and emotionally focused couples work (Johnson, 2002).

More needs to be done in helping our college veterans adapt to civilian life and return to college. Faculty and student affairs personnel must realize that returning veterans may need assistance not common among their traditional students (Baechtold & Sawal, 2009), such as help with applying for the GI Bill, accommodations for traumatic brain injuries or PTSD, or help to apply earned credits for military training (Pulley,

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2013). Faculty training on how to relate to veterans, what their specific needs are, and how faculty may help student veteran's transition to college can be included as a faculty workshop.

Transitioning from a combat environment to a school environment requires the shifting of focus and priorities. Things that may be traumatic or difficult for a traditional student may not have any effect on the returning veteran, whereas procedures that seem common place to the traditional student may be alien to the returning veteran, such as moving from an environment where one's schedule is dictated all day to an environment that leaves everything up to the individual (Pulley, 2012). Groups that help the veteran make meaning of the military experience and put that experience in the present school context are valued, especially when led by military veterans who understand the combat experience (Baechtold & Sawal, 2009). Having a student veteran mentor also has proven to be valuable for new student veterans (Colombo, 2013; Pulley, 2013).

Female veterans may face unique challenges in returning to civilian life (Baechtold & Sawal, 2009) . Studies have shown that females utilize social support more than men (Dalgard et al., 2006; Wareham, Fowler, & Pike, 2007), so an all-female support group could give female student veterans a place to bond with other women, a place to vent and share stories, and a place to share coping strategies necessary to help them adjust to a new environment and culture. Since social support also helps in the treatment of PTSD and depression (Diwan; et al., 2004; Needham, 2008; Rosario et al.,

2008; Ting et al., 2008), these groups may have a therapeutic benefit as well, especially if facilitated by a trained mental health specialist.

Limitations of the Study

This study has several limitations. The survey was sent to over a thousand schools, thus reaching thousands of student veterans, yet only 156 participants volunteered to start the survey. There may exist a selection bias where those who chose to take the survey are in some way fundamentally different than the majority who did not take the survey. The low number of participants also contributed to the model being underpowered and unable to fit the data. In addition, the survey itself was long, resulting in testing fatigue and a dropout rate that was almost 19 percent. Future studies utilizing student veterans must keep the focus more narrow and the surveys shorter to help increase the amount of participants willing to completer the survey.

The cross-sectional nature of the survey precludes an analysis of how the psychological, cognitive, and social factors interact and change over time. A longitudinal study would better allow the analysis of how time affects the different factors. This is especially true for factors such as psychological distress and social support that appear to have different functions at different times (Church, 2009; Diwan et al., 2004; Jaroncyk, 2010; King et al., 2003).

In addition, there is no way to include all possible variables that may factor into and interact with psychological stress after trauma. The factors chosen for the CoSTS model are just a few of the possible factors that may affect student veterans. One

advantage of using an SEM model is that the model will indicate how much of the variance is explained by the model and thus indicate the possibility of missing latent variables (Raykov, & Marcoulides, 2006). However, a limitation of structural equation modeling in general is that this is only one of many possible models that may fit the data, so one must exercise caution to avoid extrapolating results too widely. Other adaptations may better fit the data and this will be an area for future exploration (Raykov, & Marcoulides, 2006).

Although the use of a structural model allows researchers to observe how different variables interact, an unfortunate byproduct is that the measurement of those variables can create a survey that easily becomes unwieldy. That may have been the case in this study and could be part of the reason for the low participation rate and high drop-out rate. Other studies utilizing structural models often cut down instruments to keep the size of the overall survey manageable. This requires the researcher to use brief instruments to measure each variable, thus introducing the risk of invalidating the construct validity of the original instrument (Allen & Yen, 2002).

Drawing the sample from the Student Veterans of America list serve may limit the exposure to those veterans who do not closely associate with other veterans or veteran organizations. Veterans who are just trying to blend in or put the war behind them may not wish to associate with organizations that bring up their war experiences. Likewise, veterans trying to forget about the war may not wish to participate in a survey that makes them think about their war experiences. The author of this study attempted to limit the

self-selection bias by deliberate generalizations in the cover letter (inviting participants to a study that "examines the veteran's experiences while adjusting to college") so that the survey did not appear to be too specific to a particular group.

Another limitation is that the study did not use a comparison group of non-veterans with which to compare the results. Testing the model with different groups would help determine the validity of the model to the particular group. In addition, a comparison group of students who have experienced childhood or recent trauma but are not veterans would be useful to determine whether the model could be utilized for groups other than veterans.

This survey relies on self-report data. Self-report data can threaten the validity of the results in two ways. First, the participants may respond in socially-desirable ways and therefore not provide accurate information (Heppner et al., 2008). Additionally, research that relies only on self-reports introduces the risk of shared method variance, which refers to effects found as a result of the method used, rather than the constructs themselves. This can threaten the validity of the study (Bank, Dishion, Skinner, & Patterson, 1990; Shadish, Cook, & Campbell, 2002).

This study did not control for previous mental health treatments the participants may have received or are currently receiving. Previous mental health treatments may lower the amount of psychological trauma reported, as well as mitigating the effects of combat exposure on the other variables. Due to the fact that an SEM model requires a

large number of participants, the researcher for this study did not want to exclude participants that may have had mental health treatment.

The CoSTS model does not take into account any demographic variables, including age, race, or socio-economic background. Although some of this information was collected, these factors are not the focus of this study. Future studies will be needed to examine the impact these variables have on the other variables in the CoST model.

Future Research

The small number of participants severely underpowered the CoSTS model and made it difficult for the LISREL program to run properly. Future research should configure in more time for data collection to ensure a higher participant count. Researches should consider going to the various schools and talking to student veteran groups face-to-face to help increase trust and get buy-in from the veterans. Another suggestion is to, make the survey shorter to help decrease the dropout rates and increase the likelihood of participants wanting to take the survey in the first place. Another factor suggested by a Student Veterans of America chapter leader was to offer individual incentives for taking the survey, stating that personnel incentives are typically offered for this type of research.

Although the Combat Soldier's Transition to School (CoSTS) model proved to be a poor fit for the data, the pathways and variables of the model were found to be significant factors in student veterans' relationships and transition to college. Further studies could use this information to modify the model, or to adapt a different model.

There are many other factors not examined in this model that could also have an effect on college adjustment. Background characteristics such as race and age may be a factor in student veteran's adjustment. Likewise, the number of combat tours each person underwent, the length of time since the last deployment, the job the veteran had while deployed, and the time period in which the veteran was deployed all may affect the amount of psychological distress currently displayed by the student veterans. Other factors that may affect outcomes of the model are marital status and current and previous mental health care. These and many other environmental factors must be explored to find their effect on college adjustment for the student veteran.

This study focused on student veterans, but did not look at the experiences of veterans who are faculty members. These faculty members may have valuable experience to share that could help new student veterans adjust to the college environment. Studies could be initiated to test the hypotheses that student veterans would be more likely to trust faculty that were also veterans. If this were the case, hiring more veterans as faculty could prove to be a useful way to start to address trust issues. It also would be useful to assess how many faculty members have prior military experience to give a better understanding of veteran staffing levels at this time.

More research needs to be done on how to increase the student veteran's ability to trust. The strong correlation between trust and social support indicates a need to study possible interventions, including couple's therapy and group work. There also is a need to know more about how much of the empathy and trust issues are caused by combat

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exposure and how much is caused by preexisting factors. A longitudinal study examining new recruits at the time of enlistment and then before and after deployment would help clarify this issue.

Additional research is needed regarding the different aspects of combat exposure to better understand how combat exposure and its aftermath affect psychological functioning. Moral injury, the witnessing or committing of an atrocity, can produce PTSD- like symptoms that affect relationships and well-being, but must be treated differently than PTSD caused by a life-threatening event. There are likely many other aspects of combat exposure that are not fully understood at this time. A better understanding of the mechanism through which combat exposure affects psychological well-being will help guide treatment options.

Conclusion

This study was undertaken to examine a model of the student veteran's transition to college. Although the Combat Soldiers Transition to School (CoSTS) model was not a good fit for the data reported by the participants in the study, many of the components and pathways of the model proved to be significant factors. The interaction of the variables in the model demonstrated how combat exposure affects psychological well-being, how psychological distress combines with combat exposure to affect empathy and trust, how trust and empathy issues affect social support, and how social support impacts college adjustment self-efficacy. The results also showed how psychological distress affected feelings of alienation, which in turn affected college adjustment self-efficacy.

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All of these findings support the underlying assumption and hypotheses of the CoSTS model.

One of the most important findings of this study was how combat exposure and psychological distress affect empathy and trust, which in turn were responsible for variances in social support levels. Demonstrating one mechanism through which combat exposure and psychological distress affect relationships, especially through impacting trust levels, gives colleges and counselors a target for interventions not previously focused on. Some ways to help student veterans trust more and to feel more connected with the schools were presented previously, there are surely many others that were not mentioned.

This study also highlighted the differences in how females and males reported on the various instruments in the survey. The fact that the female veterans participants in this study were doing significantly better than their male counterparts, while encouraging, needs further evaluation with groups that are not underrepresented in the percentage of female participants before any conclusions can be drawn. Further work needs to be done to see how combat exposure and psychological distress affect women differently than man in order for treatment interventions to be targeted more specifically.

In the U. S. student veterans have deployed to combat zones for the last 14 years at the direction of the federal government. Many of these student veterans have undergone hardships and suffered many injuries, both physical and psychological. As they transition from the military to civilian life and college, they will need the help of

educators and counselors to adjust, heal and grow. This study is one small step in finding the information required to help target and apply successful interventions. With over one million veterans reported enrolling in colleges across the U. S. in 2013, nearly doubling their numbers since 2007 (LeMire, 2015) the need is growing exponentially. The question is, will we be ready?

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APPENDIX A

CURRENT STUDY INFORMATION

Instructions and Informed Consent

The University of North Carolina at Greensboro

Consent to Act As A Human Participant

Project Title: Veteran's Transition to College Survey

Principal Investigator: Steven Boul

Faculty Advisor: Dr. Christine Murray

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies ae designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in a research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro. Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.

If you would like a copy of this consent form please copy and paste this form into a Word Document. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is this study about?

This study explores how exposure to combat and its aftermath can affect psychological well-being, and how these two issues can combine to affect a veteran's relationships at home and at school, which in turn can affect adjustment to college.

Why are you asking me?

You are being asked to participate in this study because you are a military veteran who deployed to Afghanistan or Iraq for military operations, has left active duty military service, and is

currently attending a college or university and has completed at least one semester of studies. You must be 18 years old or older to participate.

What will you ask me to do if I agree to be in the study?

You will be asked to complete an on-line questionnaire that will ask about how often certain scenarios happened to you while deployed, your present psychological state, questions concerning your relationships, and issues relating to how you are doing at school. The survey consists of 169 questions followed by a short demographics section. The survey should take approximately 30 minutes or less to complete. This questionnaire will be conducted with an online Qualtrics-created survey.

What are the risks to me?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. Participation is voluntary and the participant can choose to withdraw from the survey at any time. There will be no identifying data collected, thus no way to tie participants to their responses. However, some discomfort may occur when reflecting back on experiences while deployed to a combat zone. If this should happen, please contact your school counseling clinic, your local VA provider, or call vets4warriors at 855-838-8255 to receive free peer counseling from other veterans.

If you have questions, want more information, or have suggestions regarding this study, you may contact the principle investigator, Steven Boul, at 336-392-9598, or by email at sjboul@uncg.edu. You may also contact the faculty advisor for this project, Dr. Christine Murray, at 336-334-3426, cemurray@uncg.edu.

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits and risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855) 251-2351.

Are there any benefits to society as a result of me taking part in this research?

It is hoped that through your participation the researcher may learn more about issues affecting veterans returning to college and possible areas of focus for college administrators so that they may better serve the student veteran population.

Are there any benefits to me for taking part in this research study?

There are no direct benefits to participants in this study.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to you for participation and there is no individual compensation for participation. However, as an incentive, the primary researcher will donate 1 dollar for every completed survey, up to 300 dollars, to the Wounded Warrior Project.

How will you keep my information confidential?

All data obtained from participants will be kept strictly confidential unless required by law, and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All responses are anonymous, there is no identifying information to connect you with a particular set of responses. All questionnaires will be concealed, and no one other than then primary investigator listed below will have access to them. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by the primary investigator.

Absolute confidentiality of data provided through the internet cannot be guaranteed due to the limited protections of internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

What if I want to leave this study?

You have the right to refuse to participate or withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your participation at any time. This could be because you have an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

 Voluntary Consent by Participant:

By selecting the "I Agree" button below you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning the study have been answered. By selecting the "I Agree" button below, you are agreeing that you are 18 years of age or older and are agreeing to participate.

I Agree

I Disagree

Letter to SVA Student Leaders/Faculty Advisors

To: All Student Veterans of America Chapter Leaders/Coordinators

From: Steven Boul

Reason: Research Request

Date: June 2015

Dear Sir/Mam,

I am writing to you because you are listed as the chapter student leader /faculty coordinator of your local chapter of SVA. I wrote to your national outreach coordinator, Bawd Ayomike, regarding a doctoral research dissertation that I am working on involving student veterans. The coordinator gave me permission to contact all the local chapters to have them disseminate a request letter for participation in the survey through the chapter list serves. (See Attached recruitment letter). If you could please post the letter to your list serve and let me know when it was posted I would greatly appreciate it. I will send a follow-up request in about three weeks after you make the original post to encourage those that have not taken the survey yet to please consider doing so.

Thank you for your time and effort on this request. Please read the attached request letter and watch the short video describing the study (there is a link to it in the request letter). If you have any questions or need clarification on anything, please contact me at sjboul@uncg.edu or call at 336-392-9598.

Sincerely,

Steven Boul

MS/EdS, LPC, CCMHC, NCC

Hello fellow student veterans,

My name is Steven Boul and I am a military veteran with over nine years in the Army. For the last four years I have worked as a Military and Family Life Counselor helping active duty military personnel and their families at various bases around the world. I tell you this so you know that my passion and commitment is to help those who have served their country in uniform.

I come to you today in another role: that of student researcher. I am enrolled in a doctoral program for counseling and counselor education at the University of North Carolina at Greensboro. I am currently working on my dissertation, and it should come as no surprise that I would focus my efforts on issues affecting student veterans.

If you are a military veteran who deployed to Afghanistan or Iraq, are no longer on active duty, are enrolled at a college or university where you take at least 50 percent of your classes on campus, and have completed at least 1 semester of school work, I need your help! Participation will take a half hour of your time to take an on-line survey exploring how combat exposure is affecting student   veteran's transition to college.

If you would, please click the link below, which will take you to a short 3 minute video of me explaining the study, why it is important, and what I am offering for your participation. If you agree to do the study you can come back to this page and click the bottom link which will take you to the study itself.

Thank you in advance for taking the time to look at the video, and hopefully completing the survey. And more importantly, thank you all for your service!

Link to the video: https://youtu.be/hfWOw2Qdct0

Link to the actual study: https://uncg.qualtrics.com/SE/?SID=SV_3kngeybNIuhD3hO

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Permission to use Student Veterans of America List Serve

Original email to outreach coordinator:

Dear Sir/Mam,

I am a doctoral student in the Counseling and Counselor Education program at UNCG, as well as a Military and Family Life Counselor currently working with the Special Operation Forces at Ft. Bragg. As a veteran my passion is working with active duty and veteran soldiers and their families, and that extends to my research work as well. My doctoral dissertation focuses on examining the effect combat exposure has on student veteran's relationships and adjustment to college. I am writing to request permission to send out a cover letter with a link to my study on your national list serve. The study is being approved by the school IRB, and poses minimal risk to the students. If you have any questions about the study please feel free to email me or call me at 336-392-9598. Thank you very much for your consideration of this request.

Sincerely,

Steven Boul

MS/EdS, LPC, NCC, CCMHC

Reply received April 23, 2015

Dear Mr. Boul,

I wish you well in your pursuit of information and you will surely learn more about how combat exposure affects the attitudes of students. Please feel free to use our chapter directory to spread the word about your research. You'll find contacts to the chapter leaders on the campuses across the country. Keep in mind that the Summer vacation for most students is right around the corner.

Very respectfully,

Bawo Ayomike--

Bawo Ayomike, Outreach Coordinator

Student Veterans of America

Main: 202-223-4710

www.studentveterans.org | Facebook | Twitter @studentvets

Non Standardized Liseral Output Diagram
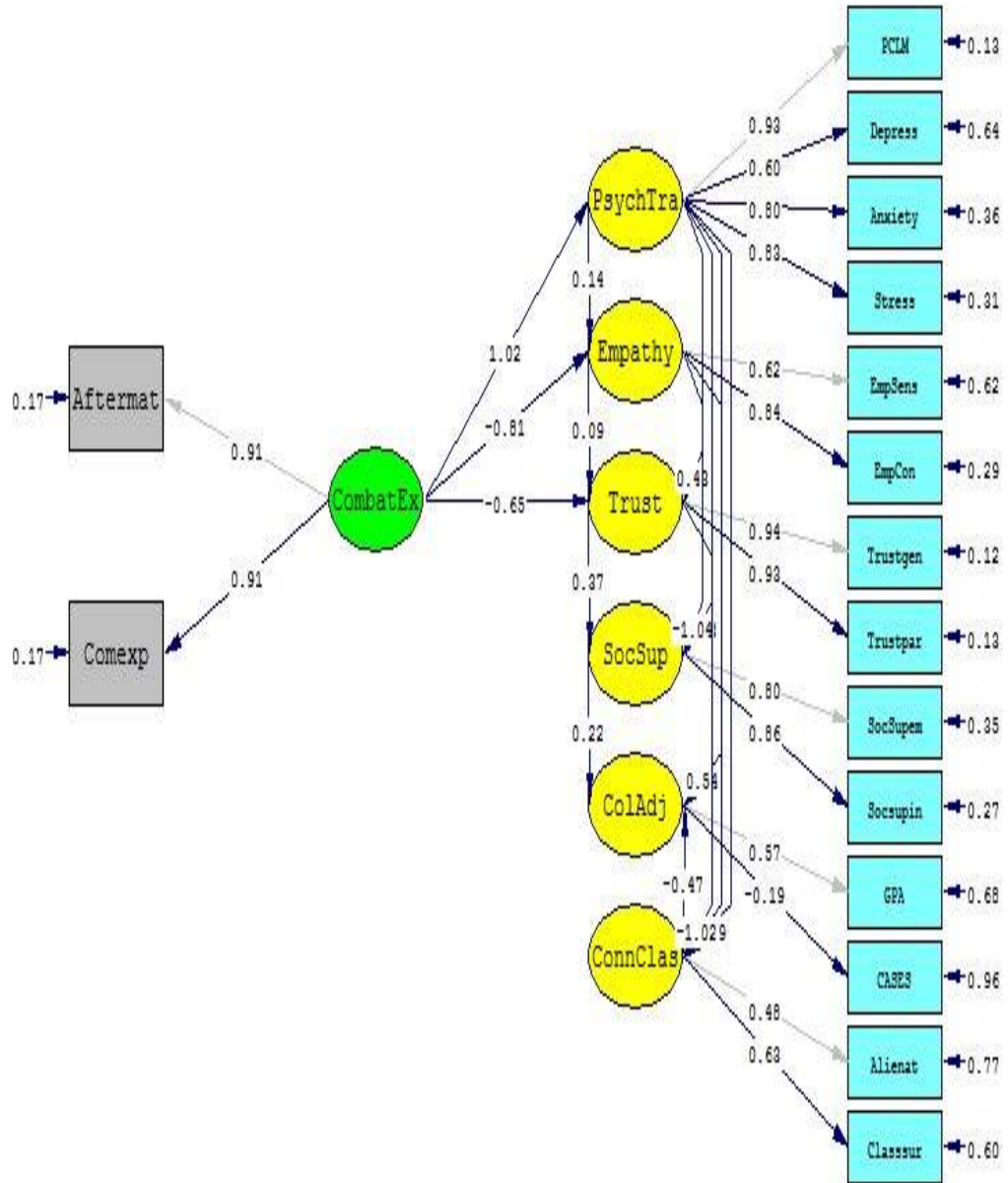
Figure 17. Non-Standardized LISREL Output

Standardized Liseral Output Diagram
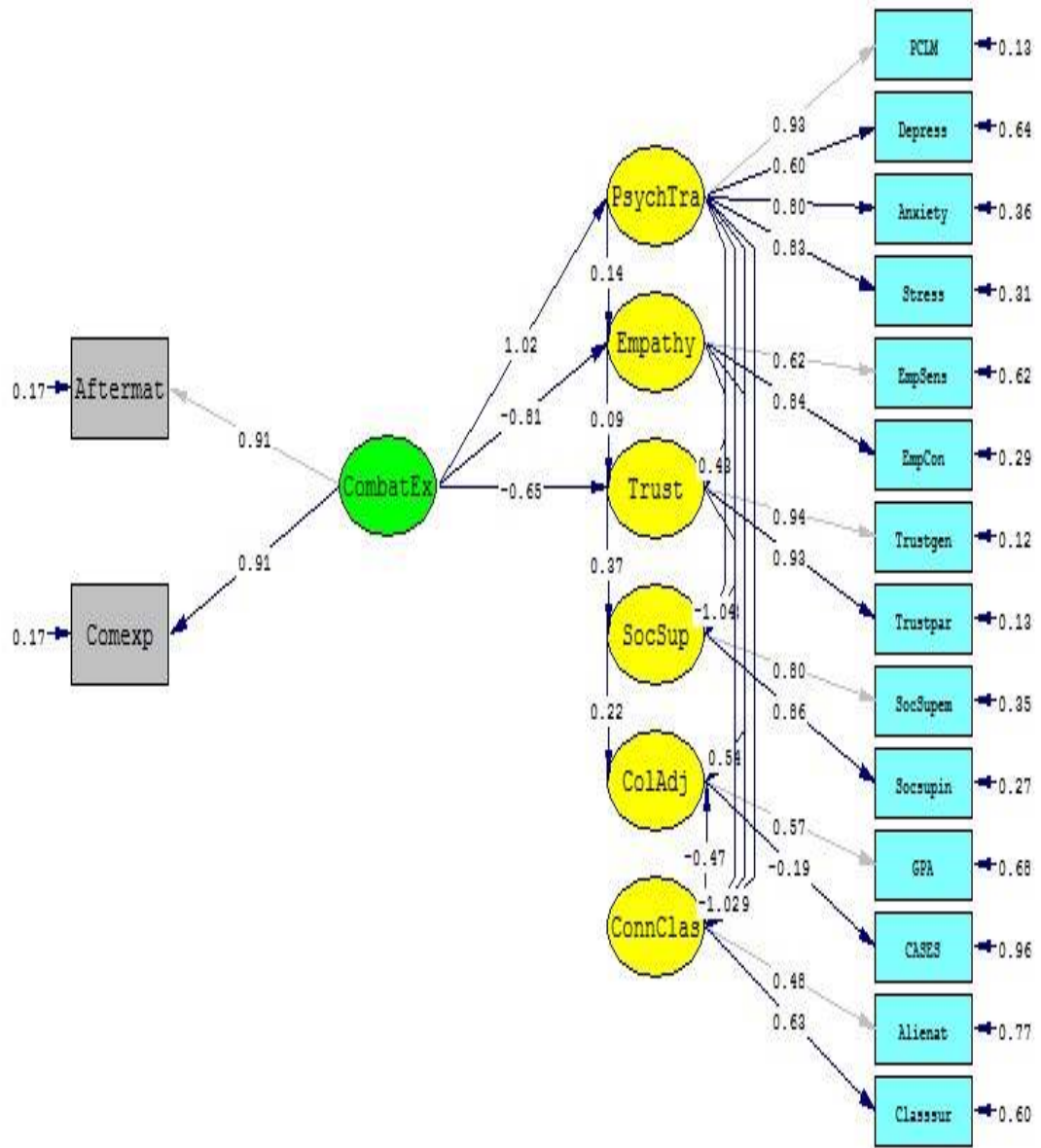
Figure 18. Standardized LISREL Output

Aftermath of Battle Scale (ABS)

Next are statements about your experiences AFTER battle. Please indicate if you ever experienced the following events anytime while you were deployed by circling either "yes" or "no."

1. I observed homes or villages that had been destroyed.	**Yes**	**No**
2. I saw refugees who had lost their homes and belongings as a result of battle.	**Yes**	**No**
3. I saw people begging for food.	**Yes**	**No**
4. I or my unit took prisoners of war.	**Yes**	**No**
5. I interacted with enemy soldiers who were taken as prisoners of war.	**Yes**	**No**
6. I was exposed to the sight, sound, or smell of animals that had been wounded or killed from war-related causes.	**Yes**	**No**
7. I took care of injured or dying people.	**Yes**	**No**
8. I was involved in removing dead bodies after battle.	**Yes**	**No**
9. I was exposed to the sight, sound, or smell of dying men and women.	**Yes**	**No**
10. I saw enemy soldiers after they had been severely wounded or disfigured in combat.	**Yes**	**No**
11. I saw the bodies of dead enemy soldiers.	**Yes**	**No**
12. I saw civilians after they had been severely wounded or disfigured.	**Yes**	**No**
13. I saw the bodies of dead civilians.	**Yes**	**No**
14. I saw Americans or allies after they had been severely wounded or disfigured in combat.	**Yes**	**No**
15. I saw the bodies of dead Americans or allies.	**Yes**	**No**

Combat Exposure Scale (CES)

Please circle the number above the answer that best describes you experience

1) Did you ever go on combat patrols or have other dangerous duty?

1	2	3	4	5
No	1-3X	4-12X	13-50X	51+times

2) Were you ever under enemy fire?

1	2	3	4	5
Never	<1 months	1-3 months	4-6 Months	7 months or more

3) Were you ever surrounded by the enemy?

1	2	3	4	5
No	1-2X	3-12X	13-25X	26+times

4) What percentage of the soldiers in your unit were killed (KIA), wounded, or missing in action (MIA)?

1	2	3	4	5
None	1-25%	25-50%	51-75%	76% or more

5) How often did you fire rounds at the enemy?

1	2	3	4	5
Never	1-2X	3-12X	13-50X	51 or more

6) How often did you see someone hit by incoming or outgoing rounds?

1	2	3	4	5
Never	1-2X	3-12X	13-50X	51 or more

7) How often were you in danger of being injured or killed (i.e. being pinned down, overrun, ambushed, near miss, etc.)?

1	2	3	4	5
Never	1-2X	3-12X	13-50X	51 or more

Trust Inventory

Scale	Item
P	1. My partner makes me feel safe
G	2. I tend to be accepting of others
P*	3. My partner sometimes makes me uncomfortable
G	4. My relationships with others are characterized by trust and acceptance
P	5. I do not worry that my partner will leave me
G	6. Basically I am a trusting person
G	7. It is better to trust people until they prove otherwise than to be suspicious of others until they prove otherwise
G	8. I accept others at "face value"
P*	9. I am skeptical that relationships ever work out
G	10. Most people are trust worthy
P	11. I believe in my partner
P*	12. In relationships I tend to be alert for the possibility of rejection or betrayal
G*	13. It is better to be suspicious of people you have just met, until you know them better
G	14. I make friends easily
P	15. I am sure about how my partner feels about me
G*	16. Only a fool would trust most people
P*	17. I am doubtful that my partner will always be there for me if I need him/her
P	18. I tell my partner that I trust him/her completely
G	19. I find it better to accept others for what they say and what they appear to be
G*	20. I would admit to being more than a little paranoid about people I meet
P*	21. Relationships will only lead to heartache
G	22. I have few difficulties trusting people
P	23. I am rarely ever suspicious of people with whom I have a relationship

G*   24. Basically I tend to be distrustful of others

P*   25. I am afraid my partner will hurt me emotionally

P*   26. I am afraid my partner will betray me

G*   27. Experience has taught me to be doubtful of others until I know they can be
        trusted

P   28. I generally believe what my partner tells me

P*   29. I never believe my partner when he/she tells me how he/she feels about me

G   30. I have a lot of faith in the people I know

G   31. Even during the "bad times" I tend to think things will work out in the end

P   32. I feel that I can be myself in the presence of my partner

P*   33. I am uncertain about how my partner feels about me

G   34. I tend to take others at their word

G   35. When it comes to people I know, I am believing and accepting

P*   36. It is dangerous to "let you guard down" with your partner

G   37. I feel that I can depend on most people I know

P*   38. I am sometimes doubtful of my partner's intentions

P*   39. When my partner is with others I worry that he/she will not be faithful

G   40. I almost always believe what people tell me

Note P=Partner Trust Scale item, G= Generalized Trust scale item, *Reverse-scored item

PCL-M

<u>INSTRUCTIONS</u>: Below is a list of problems and complaints that veterans sometimes have in response to stressful military experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem <u>in the past month</u>.

		Not at all	A little bit	Moderately	Quite a bit	Extremely
1.	Repeated, disturbing *memories, thoughts,* or *images* of a stressful military experience?	1	2	3	4	5
2.	Repeated, disturbing *dreams* of a stressful military experience?	1	2	3	4	5
3.	Suddenly *acting* or *feeling* as if a stressful military experience *were happening again* (as if you were reliving it)?	1	2	3	4	5
4.	Feeling *very upset* when *something reminded you* of a stressful military experience?	1	2	3	4	5
5.	Having *physical reactions* (e.g., heart pounding, trouble breathing, sweating) when *something reminded you* of a stressful military experience?	1	2	3	4	5
6.	Avoiding *thinking about* or *talking about* a stressful military experience or avoiding *having feelings* related to it?	1	2	3	4	5
7.	Avoiding *activities* or *situations* because *they reminded you* of a stressful military experience?	1	2	3	4	5
8.	Trouble *remembering important parts* of a stressful military experience?	1	2	3	4	5
9.	*Loss of interest* in activities that you used to enjoy?	1	2	3	4	5
10.	Feeling *distant* or *cut off* from other people?	1	2	3	4	5
11.	Feeling *emotionally numb* or being unable to have loving feelings for those close to you?	1	2	3	4	5
12.	Feeling as if your *future* will somehow be *cut short*?	1	2	3	4	5
13.	Trouble *falling* or *staying asleep*?	1	2	3	4	5
14.	Feeling *irritable* or having *angry outbursts*?	1	2	3	4	5
15.	Having *difficulty concentrating*?	1	2	3	4	5
16.	Being "*super-alert*" or watchful or on guard?	1	2	3	4	5
17.	Feeling *jumpy* or easily startled?	1	2	3	4	5

PCL-M for DSM-IV (11/1/94)   Weathers, Litz, Huska, & Keane   National Center for PTSD – Behavioral Science Division

DASS-21

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you *over the past week*. There are no right or wrong answers.

 Do not spend too much time on any statement.

The rating scale is as follows:

0   Did not apply to me at all
1   Applied to me to some degree, or some of the time
2   Applied to me to a considerable degree, or a good part of time
3   Applied to me very much, or most of the time

1   I found it hard to wind down

2   I was aware of dryness of my mouth

3   I couldn't seem to experience any positive feeling at all

4   I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)

5   I found it difficult to work up the initiative to do things

6   I tended to over-react to situations

7   I experienced trembling (eg, in the hands)

8   I felt that I was using a lot of nervous energy

9   I was worried about situations in which I might panic and make a fool of myself

10   I felt that I had nothing to look forward to

11   I found myself getting agitated

12   I found it difficult to relax

13   I felt down-hearted and blue

14   I was intolerant of anything that kept me from getting on with what I was doing

15   I felt I was close to panic

16   I was unable to become enthusiastic about anything

17   I felt I wasn't worth much as a person

18   I felt that I was rather touchy

19   I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)

20   I felt scared without any good reason

21   I felt that life was meaningless

DASS
website: www.psy.unsw.edu.au/dass/

Post Deployment Support Scale

The next set of statements refers to social support after deployment. Please decide how much you agree or disagree with each statement and circle the number that best fits your choice.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1. The reception I received when I returned from my deployment made me feel appreciated for my efforts.	1	2	3	4	5
2. The American people made me feel at home when I returned.	1	2	3	4	5
3. When I returned, people made me feel proud to have served my country in the Armed Forces.	1	2	3	4	5
4. I am carefully listened to and understood by family members or friends.	1	2	3	4	5
5. Among my friends or relatives, there is someone who makes me feel better when I am feeling down.	1	2	3	4	5
6. I have problems that I can't discuss with family or friends.	1	2	3	4	5
7. Among my friends or relatives, there is someone I go to when I need good advice.	1	2	3	4	5
8. People at home just don't understand what I have been through while in the Armed Forces.	1	2	3	4	5
9. There are people to whom I can talk about my deployment experiences.	1	2	3	4	5
10. The people I work with respect the fact that I am a veteran.	1	2	3	4	5
11. My supervisor understands when I need time off to take care of personal matters.	1	2	3	4	5
12. My friends or relatives would lend me money if I needed it.	1	2	3	4	5
13. My friends or relatives would help me move my belongings if I needed to	.1	2	3	4	5

14. When I am unable to attend to daily chores, there is someone who will help me with these tasks. **1** **2** **3** **4** **5**

15. When I am ill, friends or family members will help out until I am well. **1** **2** **3** **4** **5**

Alienation Scale

Please indicate how strongly you agree or disagree with the following statements using

the 5 point scale below:

1. When I hear my teachers talking about U.S. military operations I feel unfairly judged.

1………………2……………3……………..4……………..5
Strongly   Disagree   Neutral   Agree   Strongly
Disagree   Agree

2. I sometimes feel like I do not fit in with other students.

1………………2……………3……………..4……………..5
Strongly   Disagree   Neutral   Agree   Strongly
Disagree   Agree

3. I do not like it when people I meet at the university want to know the details of my

military   experience.

1………………2……………3……………..4……………..5
Strongly   Disagree   Neutral   Agree   Strongly
Disagree   Agree

4. I sometimes feel that I am looked down upon because I am a veteran.

1………………2……………3……………..4……………..5
Strongly   Disagree   Neutral   Agree   Strongly
Disagree   Agree

The College Adjustment Self-Efficacy Scale

For the following questions, indicate on the scale the extent to which you would be confident in your ability to complete the following tasks successfully.

1. I can make a good judgement when it is required.

0	1	2	3	4
Not confident at all				Strongly confident

2. I can think logically.

0	1	2	3	4
Not confident at all				Strongly Confident

3. I can cope with an unexpected happening.

0	1	2	3	4
Not confident at all				Strongly Confident

4. I am a person of broad observation.

0	1	2	3	4
Not confident at all				Strongly Confident

5. I can behave suitable for situations case by case.

0	1	2	3	4
Not confident at all Confident				Strongly

6. I can understand what others want to say.

0	1	2	3	4
Not confident at all				Strongly Confident

7. I can look at things from wide viewpoints.

0	1	2	3	4
Not confident at all				Strongly Confident

8. I can complete my task if it is hard for me.

0	1	2	3	4
Not confident at all				Strongly Confident

9. I can overcome what I am not good at.

0	1	2	3	4
Not confident at all				Strongly Confident

10. I can make an effort to be successful.

0	1	2	3	4
Not confident at all				Strongly Confident

11. I can bear every hardship.

0	1	2	3	4
Not confident at all				Strongly Confident

12. I can endeavor to do my task even if I fail once.

0	1	2	3	4
Not confident at all				Strongly Confident

13. I can persevere with my work until I complete it.

0	1	2	3	4
Not confident at all				Strongly Confident

14. I can fulfill my plan exactly.

0	1	2	3	4
Not confident at all				Strongly Confident

The College Adjustment Self-Efficacy Scale (cont.)

For the following questions, indicate on the scale the extent to which you would be confident in your ability to complete the following tasks successfully.

15. I can soon be friendly with those that I meet for the first time.

    0   1   2   3   4
Not confident at all   Strongly Confident

16. I can adjust myself to new surroundings.

    0   1   2   3   4
Not confident at all   Strongly Confident

17. I can cooperate with other people to do something.

    0   1   2   3   4
Not confident at all   Strongly Confident

18. I can negotiate with people who have a different opinion.

    0   1   2   3   4
Not confident at all   Strongly Confident

19. I can put myself in another's place.

    0   1   2   3   4
Not confident at all   Strongly Confident

20. I can be relied on by those who are close to me.

    0   1   2   3   4
Not confident at all   Strongly Confident

21. I can express myself clearly to others.

    0   1   2   3   4
Not confident at all   Strongly Confident

E-Scale

1. I think it is exaggerated to get completely wrapped up in a book or movie

2. If I see a good movie, I can easily feel like the principal actor

3. Seeing people crying disconcerts me

4. If someone wins money in a TV quiz, I often imagine how I would feel in his/her place

5. I can easily relive the feelings of characters in a novel

6. I have the tendency to put myself in my friend's position if he has problems

7. In a good movie I can easily put myself in the principal actor's place

8. If I see a very aged person, I often ask myself how I would feel in his/her place

9. I can really deeply understand the feelings of the characters in a novel

10. Movies about war and killing upset me

11. It rarely happens to me that I am especially engrossed in a good movie or a good book

12. I have the tendency to sympathize so strongly with characters in a play or movie, that I have the impression of being one of the characters myself

13. It upsets me more than other people when I see a friend being injured

14. If I am told an interesting story, I imagine how I would feel in that situation

15. I am often very moved by things happening before my eyes

16. Sometimes I try to understand my friends better by seeing things from their point of view

17. After a play or a movie I sometimes feel like being one of the characters myself

18. I often feel dismay or sympathy for persons, who are less fortunate than me

19. If I see a movie I often try to imagine how I would feel in the person's place

20. Other persons' misfortunes do not affect me very much

21. If I read an interesting novel, I imagine how I would feel if all these things happened to me

22. If I see a handicapped child, I try to imagine how he/she feels in certain situations

23. I feel sad if I see a lonely person in a group of people

24. If I read an interesting story, I try to imagine how I would get on in such a situation

25. Other persons have great influence on my mood

Permission to use Instrumentation

DRRI Forms (ABS and PDS Scales)

Dear Sir or Madam:

Thank you for your interest the Deployment Risk and Resilience inventory (DRRI1). Enclosed is the complete suite of DRRI scales and the DRRI informational packet2 (including scoring instructions, a description of the development of the instrument, and its psychometric properties), along with a brief informational form for you to complete and return at your earliest convenience. We request that all individuals or groups who receive the DRRI complete this form so that we can keep track of the use of this instrument. Please make sure to provide complete and accurate contact information. This form can be returned via EMAIL to:

Emily.Scheiderer@va.gov
FAX to (857) 364-6520
OR MAIL to Emily Scheiderer, Women's Health Sciences Division (116B-3), National Center for PTSD, VA Boston Healthcare System, 150 S. Huntington Ave., Boston, MA 02130.

The DRRI was developed in a collaborative effort by Drs. Daniel King, Lynda King, and Dawne Vogt. It is a psychometrically sound set of scales assessing predeployment/prewar, deployment/war-zone, and postdeployment/postwar risk and resilience factors for stress-related illnesses. Each DRRI scale may be used on its own; alternatively, you are welcome to use all of the scales together.

Importantly, at this stage, the DRRI is intended primarily for research purposes. While it has not yet been validated as a clinical instrument and there are no established clinical norms, it may beused in the clinical setting to gather information that can assist the clinician in understanding the client's range of deployment experiences and to inform decisions regarding the administration of appropriate diagnostic tools.

If you choose to use a scale or scales from the DRRI for a research study, and your IRB agreement allows, we would appreciate if you would provide us with a computer file containing your participants' anonymous item responses on the DRRI scale or scales that you administer. The data will be used for psychometric purposes only, to accumulate an integrated database for future norms.

If you have any questions, please feel free to contact Emily Scheiderer, DRRI Project Assistant, by telephone at (857) 364-6293 or by email at Emily.Scheiderer@va.gov.

Thank you.

1 The DRRI was prepared with support from the Department of Defense and the Department of Veterans Affairs (PG Grant DoD-87).

2 King, D. W., King, L. A., & Vogt, D. S. (2003). Manual for the Deployment Risk and Resilience Inventory (DRRI): A Collection of Measures for Studying Deployment-Related Experiences of Military Veterans. Boston, MA: National Center for PTSD.

DRRI INFORMATION FORM

Date: **04/12/2015**

1. Name (and degree): **Steven Boul MS/EdS, LPC, CCMHC, NCC**

2. Mailing Address: **302 Woodrow Ave, High Point NC 27262**

3. Telephone Number: **336-392-9598**

4. E-mail Address: **sboul@earthlink.net**

5. How did you first hear about the DRRI? **On-line**

6. In which scale or scales from the DRRI are you interested?

__(A) Prior Stressors __(G2) Sexual Harassment

__(B) Childhood Family Environment __(H) Perceived Threat

__(C) Preparedness __**X**(I) Combat Experiences

__(D) Difficult Living and Working Environment __**X**(J) Aftermath of Battle

__(E) Concerns about Life & Family Disruptions __(K) Nuclear, Biological, &

Chemical Exposures

__(F) Deployment Social Support __**X**(L) Postdeployment Social Support

__(G1) General Harassment __(M) Postdeployment Stressors

7. For what type of organization are you collecting this information? PLEASE CHECK ONE.

☐ __Government (VA) ☐__Government (DoD) __Private research organization

☐ __Consulting organization ☐X__Academic ☐__Other: _____

8. What is the name of the organization? **The University of North Carolina, Greensboro**

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9. If you are planning to use a scales or scales from the DRRI for a specific study, please provide a brief description of the study and the research question involving the scale or scales you will use. **Studying the affect combat exposure has on pshychological health, relationships, and adjustment to college.**

10. What will you do with the information you collect using this scale or scales? **Complete Doctoral dissertation study.**

11. If applicable, what is the sample to whom you will administer a scale or scales from the DRRI? **Student Veterans**

12. If applicable, are you planning to use these scales for a funded study or are you presently preparing an application for funding? What is the funding agency?

13. If applicable, when do you anticipate beginning and finishing data collection? **07/2015-10/2015**

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Permission to Use College Adjustment Self-Efficacy Scale

Permission to Use E-Scale

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Permission to Use Trust Inventory

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b) the scales are not sold for profit,

c) the intended audience is researchers or health professionals rather than end users, and

d) reference is included to the DASS website: www.psy.unsw.edu.au/dass/

Permission to use Alienation Scale

ⓘ Spartan

Steven Boul <sjboul@uncg.edu>

RE: uarp20:U.S. Military Veterans Transition to College: Combat, PTSD, and Alienation on Campus/Gratis/Society/Excerpt/Dissertation/Aug 19
1 message

US Journal Permissions <USJournalPermissions@taylorandfrancis.com>   Wed, Aug 19, 2015 at 11:33 AM
To: "sjboul@uncg.edu" <sjboul@uncg.edu>
Cc: Melissa Dahne <MDahne@naspa.org>

Dear Mr. Boul,

I am sending our gratis permission for the use of an excerpt of our article in your dissertation.

Thank you.

Mary Ann Muller – Permissions Coordinator, US Journals Division

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(i) Spartan   Steven Boul <sjboul@uncg.edu>

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The University of North Carolina at Greensboro
Connecting Classroom Survey
Informed Consent Form

Introduction
This purpose of this research study is to test an instrument intended to measure the nontraditional student's experience in the classroom and their relationships with faculty and other students.

Procedures
The questionnaire consists of 23 questions followed by a short demographics section. There are two open ended response questions where the participant will have the opportunity to give their feedback on the instrument to the researcher. The survey should take approximately 15 minutes or less to complete. Questions are designed to determine your experiences in the classroom and your relationships with your faculty and other students, drawn from your past experience. This questionnaire will be conducted with an online Qualtrics-created survey.

Risks/Discomforts
The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk for the participant. Participation is voluntary and the participant can choose to withdraw from the survey at any time. There will be no identifying data collected, thus no way to tie participants to their responses. The questions are general in nature and do not require going into particular relationships or personal issues.

Benefits
There are no direct benefits for participants. However, it is hoped that through your participation the researcher will learn more about the nontraditional student's experience in the classroom and will be able to make changes to the instrument so as to reflect those experiences.

Confidentiality
All data obtained from participants will be kept strictly confidential unless required by law, and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All responses are anonymous, there is no

identifying information to connect you with a particular set of responses. All questionnaires will be concealed, and no one other than then primary investigator listed below will have access to them. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by the primary investigator.

Absolute confidentiality of data provided through the internet cannot be guaranteed due to the limited protections of internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

Compensation
There are no costs to you for participation and there is no individual compensation for participation. Participants may choose to be included in a drawing for a 25 dollar gas card at the completion of the data collection. Information on how to enter your name in the drawing is included at the end of the survey.

Participation
Participation in this research study is completely voluntary. You have the right to withdraw at any time or refuse to participate entirely without jeopardy to your academic status, GPA or standing with the university. If you desire to withdraw, please close your internet browser. There is no requirement to contact the researcher if you do not take the survey.

Questions about the Research
If you have questions regarding this study, you may contact Steven Boul at 336-392-9598, or by email at sjboul@uncg.edu.

Questions about your Rights as Research Participants
Questions, concerns or complaints about this project or benefits or risks associated with being in this study can be answered by Dr. Christine Murray who may be contacted at 336-334-3426, cemurray@uncg.edu .

If you have any concerns about your rights, how you are being treated, or if you have any questions, want more information or have suggestions, please contact Eric Allen in the Office of Research Compliance at UNCG toll-free at (855) 251-2351.

By selecting the "I Agree" button below you are agreeing that you read and fully understand the contents of this document, are 18 years of age or older, and are openly willing consent to take part in this study. At this time, all of your questions concerning the study have been answered and, if desired, you have made a copy of this consent form for your records.

List Serve Request Letter

Hello <u>UNCG Commuter</u> Students!

If you are 25 years old or older, I need your help! I am writing an instrument, to be used in a larger study later, which is designed to measure the nontraditional aged student's experience in the classroom with faculty and peers. I need your feedback so that I know that I am capturing the essence of that experience. Only you, my fellow adult students, can give me that feedback. The survey is only 23 questions which should take less than 15 minutes to complete. The survey is followed by 2 open ended questions which allow you to give your feedback about the survey. A brief demographics questionnaire also is included.

As commuting students I know the price of gas has been on everyone's mind. As an incentive for participating in the survey there will be drawing for a 25 dollar gas card that can be entered by anyone completing the survey. Information on how to register for the drawing is provided at the end of the survey.

The first page of the survey serves as an informed consent form. This study has been authorized by UNCG's Institutional Review Board.

  If you would like to participate in the survey and drawing you can access the survey at:

https://uncg.qualtrics.com/SE/?SID=SV_9H1B2YBHrNPcfIw

If you have any questions or concerns about this project, please feel free to contact the researchers below.
Thank you for your time and consideration!

Steven Boul, MS/EdS, LPC, NCC, CCMHC
Doctoral Student
Counseling and Counselor Education
The University of North Carolina at Greensboro
sjboul@uncg.edu

Dr. Christine Murray
Associate Professor
Department of Counseling and Educational Development
204 Ferguson Building
The University of North Carolina at Greensboro
cemurray@uncg.edu

IRB Exemption Form

THE UNIVERSITY *of* NORTH CAROLINA
GREENSBORO

To: Christine Murray
Counsel and Ed Development
204 Ferguson Building

From: UNCG IRB

Date: 6/08/2012

RE: Notice of IRB Exemption
Exemption Category: 2.Survey, interview, public observation
Study #: 12-0177

Study Title: The Connecting Classroom Survey

This submission has been reviewed by the above IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

The purpose of this study is to pilot an instrument for nontraditional students that captures their experience in the classroom and their relationships with faculty and fellow students.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

CC: Steven Boul

Pilot Study: The Connecting Classroom Survey

Q1. **How often during your time as a student did you see or experience your instructors engage in the following activities:**

	Not at all	Not very often	Sometimes	Often	Very often
Discuss assignments with students	❍	❍	❍	❍	❍
Discuss ideas generated from readings or class assignments outside of class	❍	❍	❍	❍	❍
Discuss career plans or goals with students	❍	❍	❍	❍	❍
Work with students outside of class on academic or school related activities other than coursework	❍	❍	❍	❍	❍
Give timely feedback to students on academic performance	❍	❍	❍	❍	❍

Q2. **How often during your time as a student did you engage in the following activities:**

	Not at all	Not very often	Sometimes	Often	Very Often
Discuss assignments with an instructor	❑	❑	❑	❑	❑
Discuss ideas generated from readings or class assignments with an instructor outside of class	❑	❑	❑	❑	❑
Discuss career plans or goals with an instructor	❑	❑	❑	❑	❑
Work with an instructor outside of class on academic or school related activities other than coursework	❑	❑	❑	❑	❑

Q3. **How often during your time as a student did you engage in the following activities:**

	Not at all	Not very often	Sometimes	Often	Very Often
Have conversations with classmates before or after class	❍	❍	❍	❍	❍
Work with classmates on class projects outside of class	❍	❍	❍	❍	❍
Discuss ideas from readings or class assignments with classmates outside of class	❍	❍	❍	❍	❍
Have in-depth conversations with fellow students who have different political views, religious beliefs, or personal values	❍	❍	❍	❍	❍
Have in-depth conversations with students who are a different race/ethnicity than you.	❍	❍	❍	❍	❍

Q4. **How often during your time as a student did you feel the following:**

	Not at all	Not very often	Sometimes	Often	Very Often
Feel physically safe in class	❍	❍	❍	❍	❍
Feel safe to ask questions or participate in class discussions	❍	❍	❍	❍	❍
Feel like the class material related to real world concepts	❍	❍	❍	❍	❍
Feel like the class was a community of learners	❍	❍	❍	❍	❍

Q5. **On the scales below mark the circle that indicates how much faculty members demonstrated the following traits:**

	Unhelpful, Unsupportive, Uncaring, Unavailable	2	3	4	5	6	Helpful, Supportive, Caring, Available
Helpfulness	❍	❍	❍	❍	❍	❍	❍
Supportiveness	❍	❍	❍	❍	❍	❍	❍
Caring	❍	❍	❍	❍	❍	❍	❍
Availability	❍	❍	❍	❍	❍	❍	❍

Q6. **On the scales below mark the circle that indicates how much your fellow students demonstrated the following traits:**

	Unfriendly, Disconnected, Unsupportive, Uncaring	2	3	4	5	6	Friendly, Connected, Supportive, Caring
Friendliness	❍	❍	❍	❍	❍	❍	❍
Connectedness	❍	❍	❍	❍	❍	❍	❍
Supportiveness	❍	❍	❍	❍	❍	❍	❍
Caring	❍	❍	❍	❍	❍	❍	❍

Q7. **On the following scales indicate how much respect you feel you receive from:**

	Not at all	2	3	4	5	6	Totally respected
Faculty Members	❍	❍	❍	❍	❍	❍	❍
Fellow Students	❍	❍	❍	❍	❍	❍	❍

Q8. **What is your age?**

Q9. **What is your Gender?**

❍ Male (1)
❍ Female (2)
❍ Transgender (3)

Q10. **What is your Ethnicity/Race?**

❍ American Indian (1)
❍ Asian, Asian American, or Pacific Islander (2)
❍ Black or African American (3)
❍ White (non Hispanic) (4)
❍ Hispanic or Latino (5)
❍ Multiracial (6)
❍ other (7)

Q11. **What is your year in College?**

❍ Freshman (1)
❍ Sophomore (2)
❍ Junior (3)
❍ Senior (4)
❍ Graduate Student (5)

Q12. **Have you served in the Military?**

❍ Yes (1)
❍ No (2)

Q13. The following questions will give you the opportunity to tell us about your experience taking this survey. Please take a moment to give your feedback on ways this survey may be improved.

Q14. Do the above questions include all aspects of your experience with faculty and classmates? If not what would you add?

Q15. Are the above questions clear and easy to understand? If not, what would you change?

Pilot Study Participant Comments

Comments from Connected Classroom Survey

1. Sort of. The rating scale is not the best especially for time based questions. Use something like once a semester etc. I'm in the music program so my experience is quite different from most other programs, I have all small classes with almost all the same people

2. Yes - As an older student I felt like my values and morals did not aline up with alot of the younger students. Most of them seem to think they knew alot about life. What they do not understand - this is all theory, no application. It takes experience to really learn life

3. I think being more specific might help answer your questions better. As some of the terms are things you'd expect from a learning environment and don't seem too specific to a certain major or professor.

4. It is hard to generalize because of course I had the professors who were super supportive and pushed me to be a better student, and then I had the professor who liked to wave their PhD in their hand and imply that they were better than me... But the questions reflect my general feelings yes.

5. I would add the questions: Do I think that UNCG caters only to the typical , on campus student? / Do you regret coming to UNCG and would rather have gone to a college like Guilford College that has a large population of non-traditional students? Do you feel ostracized being a non-traditional student?

6. Maybe something about whether the student has ever gone on to do an outside project with a faculty member (e.g., an undergrad thesis or research experience class)? That might speak to how supported/inspired the student felt from a faculty member and most of my interactions with faculty regard my research interests.   I would add demographics information about the student type. I'm a graduate student, and so, I'm sure my answers about faculty/student involvement differ from an undergraduates'. Unless you have that listed later in the survey...

7. Since the study is about older students in school, I would have added a question about other students and faculty understanding about other commitments (families, jobs, etc) Also about well I felt faculty listened to my concerns and helped with those concerns.

8. Each class I have taken has been a different experience. Some professors are really helpful and make it a point to be available and some are just too busy to help (ie-- obviously have outside projects/research going on taking up their time). / / As a commuter student who works full-time I try to make the most out of my time spent in class. I ask the questions I need to of professors and keep it moving. I do the same thing with classmates. Some I have outside relationships with and some I don't.

9. Yes, pretty much sums it up.

10. For classmates, yes for the most part but the for faculty, it is dependent on whether is a faculty member of my major or not. The decision for most of the answers are average because I respect my teachers in my major more than I respect my teachers of my non major class. Typically, the non major professors are too bogged down with sheer volume of students in the class to give individual feedback.

11. For the most part, you could add a question asking if we feel that we fit into the college environment. Being older than most of the other UNCG students, I don't always feel like I fit in with them. I am a transfer student from a community college and there I was one of the younger students.

12. There have been times when I felt a disconnect between myself and those students who entered a graduate program directly out of undergrad. It might be interesting to ask a question that gets at that and see if that is a common experience for older students.

13. Yes, for the most part. I would add how long has one attended this university. This is my first semester at UNCG as a transfer student.

14. I relied on my most recent experiences as a student (within the last few years at UNCG), which was characterized by the same cohort of students experiencing similar classes. Also, our cohort had an online presence, too (social media - Facebook), which factored in my perceptions of connectedness, supportiveness, and caring (beyond in-person interactions).

15. Competence of faculty

16. Not necessarily, with the age gap and the difference in lifestyles its harder to be as connected with other students however those few interactions I've had are not all accurately displayed with the questions available.

17. I would add that "education" today seems to mean "here's the book/manual, I'll lecture about it a little in class, but you'll actually be teaching yourself". I struggle with the daily knowledge that I'm paying thousands of dollars to a university for a degree that

I'm teaching to myself! That's like paying a mechanic thousands of dollars to put a new motor in your car, only to have him hand you the manual and say good luck!

18. I have had a very diverse response from both. Some are helpful and friendly other not at all. Mostly these answers reflect my experiences overall.

19. Something about understanding the balance between home and school; the balance between home, work and school. As a non traditional student, the juggling act seems to be the biggest issue and others around don't seem to understand the concept (e.g., going home and helping my kids with their homework, arriving just in time to class feeling overwhelmed because I am coming from work straight to class)

20. it does reflect my experience with faculty and peers.

Pilot Study Tables

Table 23

Descriptive Statistics Table, Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	5	13.5	13.5	13.5
	Female	32	86.5	86.5	100.0
	Total	37	100.0	100.0	

Table 24

Descriptive Statistics Table, Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Asian, Asian American, Pacific Islander	2	5.4	5.4	5.4
	Black or African American	8	21.6	21.6	27.0
	White	27	73.0	73.0	100.0
	Total	37	100.0	100.0	

Pilot Study Tables

Table 25

Descriptive Statistics Table, Year in College

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Freshman	3	8.1	8.1	8.1
	Sophomore	4	10.8	10.8	18.9
	Junior	9	24.3	24.3	43.2
	Senior	12	32.4	32.4	75.7
	Graduate Student	9	24.3	24.3	100.0
	Total	37	100.0	100.0	

Table 26

Descriptive Statistics Table, Military Service

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	1	2.7	2.7	2.7
	No	36	97.3	97.3	100.0
	Total	37	100.0	100.0	

Table 27

Descriptive Statistics Table, Age

	N	Minimum	Maximum	Mean	Std. Deviation
What is your age?	37	23	54	31.00	9.595
Valid N (listwise)	37				

Pilot Study Tables

Table 28

Reliability Analysis for Connecting Classroom Survey

	Cronbach's Alpha Based on Standardized Items	
Cronbach's Alpha		N of Items
.926	.929	23

Table 29

Factor Analysis Total Variance Explained

Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.681	42.090	42.090	7.262	31.574	31.574
2	3.962	17.226	59.316	1.551	6.746	38.320
3	1.686	7.332	66.647	1.541	6.700	45.020
4	1.288	5.601	72.248	4.071	17.700	62.719
5	1.193	5.186	77.434	1.648	7.164	69.883

Total Variance Explained		
	Rotation Sums of Squared Loadings	
Factor	Total	% of Variance	Cumulative %
1	5.331	23.177	23.177
2	4.168	18.120	41.298
3	3.582	15.575	56.873
4	2.147	9.336	66.209
5	.845	3.674	69.883

Pilot Study Tables

Table 30

Rotated Factor Analysis Loading Table for the Connecting Classroom Survey

Question #	1	2	3	4	5
1	.072	**.649**	.189	.051	.075
2	.217	**.398**	-.229	.221	-.190
3	.190	**.616**	.266	.300	-.046
4	-.058	**.558**	-.104	.092	-.239
5	.464	**.731**	.203	.103	.228
6	.083	**.805**	-.014	-.135	.280
7	**.543**	**.447**	-.180	.077	.043
8	.239	**.790**	-.071	-.066	-.074
9	.233	**.883**	-.088	-.039	.083
10	.171	.100	.182	**.740**	-.090
11	.237	-.055	.140	**.952**	.120
12	**.597**	.052	.231	.417	.213
13	**.585**	.206	.252	.250	.088
14	.478	-.121	**.759**	-.007	.036
15	.409	.036	**.773**	.269	.168
16	.232	-.028	**.936**	.259	.031
17	**.662**	-.075	.493	.142	.077
18	**.618**	.349	.434	.102	-.142
19	**.794**	.334	.275	.061	.058
20	**.876**	.228	.207	.168	.052
21	**.756**	.218	.248	.156	-.053
22	.497	.174	**.565**	.157	**.615**
23	**.585**	.189	.419	.128	.303